



NATURAL MEDICINE RESEARCH

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Below you will find compelling research hard-referenced to peer-reviewed biomedical research sourced from the US National Library of Medicine.

These Results Are Based on the Following Terms

- [Dyslipidemias](#)
- [High Cholesterol](#)
- [Hypertension](#)
- [Insulin Resistance](#)
- [Metabolic Syndrome X](#)
- [Abdominal Obesity \(Midsection Fat\)](#)

102 Relevant Results for Substances

Substances Name	Diseases	Cumulative Knowledge	Article Count
Arginine	<ul style="list-style-type: none"> • Abdominal Obesity (Midsection Fat) • High Cholesterol • Hypertension • Insulin Resistance • Metabolic Syndrome X • Pulmonary Hypertension 	199	32
Whey	<ul style="list-style-type: none"> • Abdominal Obesity (Midsection Fat) • Dyslipidemias • High Cholesterol • Hypertension • Insulin Resistance • Metabolic Syndrome X 	85	9
Flavonoids	<ul style="list-style-type: none"> • Abdominal Obesity (Midsection Fat) • Dyslipidemias • High Cholesterol • Hypertension • Insulin Resistance • Metabolic Syndrome X 	83	19
Curcumin	<ul style="list-style-type: none"> • Dyslipidemias • High Cholesterol • Hypertension • Insulin Resistance • Metabolic Syndrome X • Pulmonary Hypertension • Abdominal Obesity (Midsection Fat) 	44	20

Soy Protein	<ul style="list-style-type: none"> ● Dyslipidemias ● High Cholesterol ● Hypertension ● Insulin Resistance ● Metabolic Syndrome X 	38	10
Genistein	<ul style="list-style-type: none"> ● Abdominal Obesity (Midsection Fat) ● High Cholesterol ● Hypertension ● Insulin Resistance ● Metabolic Syndrome X ● Pulmonary Hypertension 	27	12
Fermented Foods and Beverages	<ul style="list-style-type: none"> ● Dyslipidemias ● High Cholesterol ● Hypertension ● Insulin Resistance ● Metabolic Syndrome X 	68	8
Fiber	<ul style="list-style-type: none"> ● Abdominal Obesity (Midsection Fat) ● High Cholesterol ● Hypertension ● Insulin Resistance ● Metabolic Syndrome X 	65	13
Resveratrol	<ul style="list-style-type: none"> ● Abdominal Obesity (Midsection Fat) ● High Cholesterol ● Hypertension ● Insulin Resistance ● Metabolic Syndrome X 	63	27
Omega-3 Fatty Acids	<ul style="list-style-type: none"> ● Dyslipidemias ● High Cholesterol ● Hypertension ● Insulin Resistance ● Metabolic Syndrome X 	57	13
Fish Oil	<ul style="list-style-type: none"> ● Abdominal Obesity (Midsection Fat) ● High Cholesterol ● Hypertension ● Insulin Resistance ● Metabolic Syndrome X 	48	10
Isoflavones	<ul style="list-style-type: none"> ● Abdominal Obesity (Midsection Fat) ● High Cholesterol ● Hypertension ● Insulin Resistance ● Metabolic Syndrome X 	32	11
Polyphenols	<ul style="list-style-type: none"> ● Dyslipidemias ● High Cholesterol ● Hypertension ● Insulin Resistance ● Metabolic Syndrome X 	27	10
	<ul style="list-style-type: none"> ● Abdominal Obesity (Midsection Fat) 		

Flaxseed	<ul style="list-style-type: none"> • Dyslipidemias • High Cholesterol • Hypertension • Metabolic Syndrome X 	23	6
Lactobacillus probiotics	<ul style="list-style-type: none"> • Dyslipidemias • Hypertension • Insulin Resistance • Metabolic Syndrome X 	40	4
Magnesium	<ul style="list-style-type: none"> • Dyslipidemias • Hypertension • Insulin Resistance • Metabolic Syndrome X 	34	8
Red Yeast Rice	<ul style="list-style-type: none"> • Dyslipidemias • High Cholesterol • Insulin Resistance • Metabolic Syndrome X 	29	6
Berberine	<ul style="list-style-type: none"> • High Cholesterol • Hypertension • Insulin Resistance • Metabolic Syndrome X 	20	9
Green Tea	<ul style="list-style-type: none"> • Abdominal Obesity (Midsection Fat) • Hypertension • Insulin Resistance • Metabolic Syndrome X 	20	5
Vitamin D	<ul style="list-style-type: none"> • Abdominal Obesity (Midsection Fat) • Hypertension • Insulin Resistance 	73	13
Cocoa	<ul style="list-style-type: none"> • High Cholesterol • Hypertension • Insulin Resistance 	63	11
Beta-glucan	<ul style="list-style-type: none"> • Abdominal Obesity (Midsection Fat) • High Cholesterol • Hypertension 	36	8
5-methyltetrahydrofolate (MTHF)	<ul style="list-style-type: none"> • Hypertension • Insulin Resistance • Metabolic Syndrome X 	30	3
Soy	<ul style="list-style-type: none"> • Hypertension • Insulin Resistance • Metabolic Syndrome X 	29	10
Lignans	<ul style="list-style-type: none"> • Abdominal Obesity (Midsection Fat) • High Cholesterol • Insulin Resistance 	28	4
Stevia	<ul style="list-style-type: none"> • Hypertension • Insulin Resistance 	24	5

Stevia	•	Metabolic Syndrome X	27	3
	•	Dyslipidemias		
Vitamin C	•	High Cholesterol	24	6
	•	Hypertension		
	•	High Cholesterol		
Buckwheat	•	Hypertension	21	3
	•	Metabolic Syndrome X		
	•	High Cholesterol		
Black Cumin (Nigella sativa)	•	Hypertension	20	4
	•	Insulin Resistance		
	•	Dyslipidemias		
Policosanol	•	High Cholesterol	20	3
	•	Insulin Resistance		
	•	Abdominal Obesity (Midsection Fat)		
Bitter Melon	•	Insulin Resistance	18	6
	•	Metabolic Syndrome X		
	•	Abdominal Obesity (Midsection Fat)		
Catechin	•	Hypertension	18	4
	•	Metabolic Syndrome X		
	•	Abdominal Obesity (Midsection Fat)		
Coconut	•	High Cholesterol	18	4
	•	Hypertension		
	•	Hypertension		
Astaxanthin	•	Insulin Resistance	17	7
	•	Metabolic Syndrome X		
	•	Dyslipidemias		
Chlorella (Algae)	•	Hypertension	17	5
	•	Insulin Resistance		
	•	Hypertension		
Cinnamon	•	Insulin Resistance	16	5
	•	Metabolic Syndrome X		
	•	High Cholesterol		
Olive	•	Hypertension	16	3
	•	Insulin Resistance		
	•	Dyslipidemias		
Watermelon	•	Hypertension	16	3
	•	Metabolic Syndrome X		
	•	Abdominal Obesity (Midsection Fat)		
Licorice	•	Hypertension	15	5
	•	Metabolic Syndrome X		
	•	High Cholesterol		
Ginger	•	Hypertension	14	4

Singer	•	Metabolic Syndrome X	17	7
	•	Hypertension		
Blueberry	•	Insulin Resistance	13	3
	•	Metabolic Syndrome X		
	•	Hypertension		
EPA (Eicosapentaenoic Acid)	•	Insulin Resistance	13	4
	•	Pulmonary Hypertension		
	•	Abdominal Obesity (Midsection Fat)		
Carnitine	•	Dyslipidemias	12	4
	•	Insulin Resistance		
	•	High Cholesterol		
Daidzein	•	Insulin Resistance	11	5
	•	Metabolic Syndrome X		
	•	High Cholesterol		
Quercetin	•	Hypertension	11	5
	•	Metabolic Syndrome X		
	•	Abdominal Obesity (Midsection Fat)		
Chickpea	•	Dyslipidemias	9	3
	•	Insulin Resistance		
	•	Dyslipidemias		
Noni	•	High Cholesterol	9	3
	•	Hypertension		
	•	Dyslipidemias		
Vaccenic acid	•	High Cholesterol	8	4
	•	Metabolic Syndrome X		
	•	High Cholesterol		
Oats	•	Hypertension	51	10
	•	Hypertension		
Grape Seed Extract	•	Hypertension	30	2
	•	Insulin Resistance		
	•	High Cholesterol		
Garlic	•	Hypertension	27	5
	•	Hypertension		
D-Chiro-Inositol	•	Metabolic Syndrome X	20	2
	•	Hypertension		
Inositol	•	Metabolic Syndrome X	20	2
	•	Hypertension		
Alpha-Lipoic Acid	•	Insulin Resistance	18	4
	•	Hypertension		
Citrulline	•	Metabolic Syndrome X	18	3
	•	High Cholesterol		
Vegetables: All	•	Hypertension	15	3

Selenium	<ul style="list-style-type: none"> • Abdominal Obesity (Midsection Fat) • High Cholesterol 	14	3
Coconut Oil	<ul style="list-style-type: none"> • Abdominal Obesity (Midsection Fat) • High Cholesterol 	12	3
Maitake Mushroom	<ul style="list-style-type: none"> • Hypertension • Insulin Resistance 	12	4
Niacin	<ul style="list-style-type: none"> • Dyslipidemias • Metabolic Syndrome X 	12	4
DHA (Docosahexaenoic Acid)	<ul style="list-style-type: none"> • Hypertension • Insulin Resistance 	11	3
Fenugreek	<ul style="list-style-type: none"> • Abdominal Obesity (Midsection Fat) • Insulin Resistance 	11	3
Tart Cherry	<ul style="list-style-type: none"> • Abdominal Obesity (Midsection Fat) • Metabolic Syndrome X 	11	3
Almond	<ul style="list-style-type: none"> • High Cholesterol • Metabolic Syndrome X 	10	2
Cashew	<ul style="list-style-type: none"> • Hypertension • Metabolic Syndrome X 	10	2
Cranberry	<ul style="list-style-type: none"> • High Cholesterol • Hypertension 	10	2
Hibiscus	<ul style="list-style-type: none"> • Hypertension • Metabolic Syndrome X 	10	2
Oat Bran	<ul style="list-style-type: none"> • High Cholesterol • Hypertension 	10	2
Chia	<ul style="list-style-type: none"> • Dyslipidemias • Insulin Resistance 	9	3
Garcinia cambogia	<ul style="list-style-type: none"> • Abdominal Obesity (Midsection Fat) • Dyslipidemias 	9	3
Royal Jelly	<ul style="list-style-type: none"> • Hypertension • Insulin Resistance 	9	3
Taurine	<ul style="list-style-type: none"> • Hypertension • Insulin Resistance 	9	3
ALA (Alpha-Linolenic Acid)	<ul style="list-style-type: none"> • Dyslipidemias • Hypertension 	8	2
Capsaicin	<ul style="list-style-type: none"> • High Cholesterol • Hypertension 	8	4
Tamarind	<ul style="list-style-type: none"> • High Cholesterol • Hypertension 	8	2

Coriandrum sativum	• High Cholesterol • Hypertension	7	3
EGCG (Epigallocatechin gallate)	• Hypertension • Metabolic Syndrome X	7	3
Turmeric	• High Cholesterol • Hypertension	7	3
L-Carnitine	• Abdominal Obesity (Midsection Fat) • Dyslipidemias	6	2
Pumpkin Seed Oil/Meal	• High Cholesterol • Hypertension	6	2
Rehmannia	• Insulin Resistance • Metabolic Syndrome X	6	2
Rice Protein	• High Cholesterol • Hypertension	6	2
Rosemary	• Insulin Resistance • Metabolic Syndrome X	6	2
Ashwagandha	• Hypertension • Insulin Resistance	5	2
Astragalus	• Insulin Resistance • Pulmonary Hypertension	5	2
CLA (Conjugated Linoleic Acid)	• Abdominal Obesity (Midsection Fat) • High Cholesterol	5	2
Pine Nut	• High Cholesterol • Hypertension	5	2
Amaranth	• High Cholesterol • Hypertension	4	2
Cordyceps sinensis	• High Cholesterol • Pulmonary Hypertension	4	2
Eggplant	• High Cholesterol • Hypertension	4	2
Fructose	• Dyslipidemias • Metabolic Syndrome X	4	2
Grapefruit	• Abdominal Obesity (Midsection Fat) • Hypertension	4	2
Krill	• High Cholesterol • Metabolic Syndrome X	4	2
Moringa oleifera	• High Cholesterol • Hypertension	4	2

Palm Oil	•	Dyslipidemias	4	2
	•	High Cholesterol		
Pterostilbene	•	High Cholesterol	4	2
	•	Insulin Resistance		
Sprouts	•	High Cholesterol	4	2
	•	Insulin Resistance		
Stilbenes	•	Hypertension	4	3
	•	Insulin Resistance		
Water: Deep Sea	•	High Cholesterol	4	2
	•	Hypertension		
Anthocyanins	•	Abdominal Obesity (Midsection Fat)	2	2
	•	Metabolic Syndrome X		
Berries: All	•	Abdominal Obesity (Midsection Fat)	2	2
	•	Metabolic Syndrome X		
Soy: Fermented	•	Insulin Resistance	2	2
	•	Metabolic Syndrome X		

17 Relevant Results for Problem Substances

Problem Substances Name	Diseases	Cumulative Knowledge Article Count	
Fructose	• Abdominal Obesity (Midsection Fat)	213	57
	• Dyslipidemias		
	• Hypertension		
	• Insulin Resistance		
	• Metabolic Syndrome X		
Organochlorine pesticides	• Dyslipidemias	50	5
	• Hypertension		
	• Insulin Resistance		
	• Metabolic Syndrome X		
Sugary soda	• Dyslipidemias	32	7
	• Hypertension		
	• Insulin Resistance		
	• Metabolic Syndrome X		
Monosodium Glutamate (MSG)	• Abdominal Obesity (Midsection Fat)	12	6
	• Dyslipidemias		
	• Insulin Resistance		
	• Metabolic Syndrome X		
Polychlorinated biphenyls (PCBs)	• Dyslipidemias	40	3
	• Hypertension		
	• Insulin Resistance		
Persistent organic pollutants (POPs)	• Dyslipidemias	32	6
	• Insulin Resistance		
	• Metabolic Syndrome X		

High Fructose Corn Syrup	<ul style="list-style-type: none"> • Dyslipidemias • Insulin Resistance • Metabolic Syndrome X 	7	5
Statin Drugs	<ul style="list-style-type: none"> • High Cholesterol • Hypertension 	57	10
Beta Blockers	<ul style="list-style-type: none"> • Hypertension • Pulmonary Hypertension 	50	5
Hydrogenated Oil	<ul style="list-style-type: none"> • Hypertension • Insulin Resistance 	18	4
Trans Fatty Acids	<ul style="list-style-type: none"> • Hypertension • Insulin Resistance 	17	3
Sugar Sweetened Beverages	<ul style="list-style-type: none"> • Dyslipidemias • Hypertension 	15	2
Simvastatin	<ul style="list-style-type: none"> • High Cholesterol • Hypertension 	12	2
Fenofibrates	<ul style="list-style-type: none"> • Dyslipidemias • High Cholesterol 	11	2
Zinc Acetate	<ul style="list-style-type: none"> • Hypertension • Metabolic Syndrome X 	4	2
Zinc Chloride	<ul style="list-style-type: none"> • Hypertension • Metabolic Syndrome X 	4	2
Zinc sulfate	<ul style="list-style-type: none"> • Hypertension • Metabolic Syndrome X 	4	2

9 Relevant Results for Therapeutic Actions

Therapeutic Actions Name	Diseases	Cumulative Knowledge	Article Count
Exercise	<ul style="list-style-type: none"> • Abdominal Obesity (Midsection Fat) • High Cholesterol • Hypertension • Insulin Resistance • Metabolic Syndrome X 	94	15
Dietary Modification: Mediterranean Diet	<ul style="list-style-type: none"> • Abdominal Obesity (Midsection Fat) • High Cholesterol • Hypertension • Insulin Resistance • Metabolic Syndrome X 	81	15
Qigong	<ul style="list-style-type: none"> • Hypertension • Insulin Resistance • Metabolic Syndrome X 	25	4

Dietary Modification: Low Carbohydrate	<ul style="list-style-type: none"> • Abdominal Obesity (Midsection Fat) • Dyslipidemias • Insulin Resistance 	22	3
Dietary Modification: Caloric Restriction	<ul style="list-style-type: none"> • Abdominal Obesity (Midsection Fat) • Insulin Resistance 	19	4
Yoga	<ul style="list-style-type: none"> • High Cholesterol • Hypertension 	18	4
Fasting/Caloric Restriction	<ul style="list-style-type: none"> • Abdominal Obesity (Midsection Fat) • Insulin Resistance 	15	5
Tai Chi	<ul style="list-style-type: none"> • Hypertension • Metabolic Syndrome X 	15	2
Exercise: Swimming	<ul style="list-style-type: none"> • Insulin Resistance • Metabolic Syndrome X 	4	2

Arginine

[L-Arginine supplementation in pregnant women with mild chronic hypertension does not significantly affect overall blood pressure but is associated with less need for antihypertensive medications and a trend toward fewer maternal and neonatal complications](#) -

GMI Summary

Pubmed Data : J Matern Fetal Neonatal Med. 2010 Dec;23(12):1456-60. Epub 2010 Oct 20. PMID: [20958228](#)

Article Published Date : Dec 01, 2010

Authors : Isabella Neri, Francesca Monari, Laura Sgarbi, Alberto Berardi, Giuseppe Masellis, Fabio Facchinetti

Study Type : Human Study

Additional Links

Substances : [Arginine](#) : CK(854) : AC(168)

Diseases : [Hypertension](#) : CK(1319) : AC(254), [Prenatal Nutrition: Health of the Offspring](#) : CK(199) : AC(29), [Prenatal Nutrition: Prevention of Problems](#) : CK(243) : AC(34)

Pharmacological Actions : [Antihypertensive Agents](#) : CK(158) : AC(35)

[L-arginine augments the effects of exercise training on insulin sensitivity and capillary growth in muscles.](#) - GMI Summary

Pubmed Data : Curr Opin Clin Nutr Metab Care. 2007 Jan;10(1):46-51. PMID: [17143054](#)

Article Published Date : Jan 01, 2007

Authors : Glenn K McConell

Study Type : Human Study

Additional Links

Substances : [Arginine](#) : CK(854) : AC(168)

Diseases : [Insulin Resistance](#) : CK(707) : AC(184)

Pharmacological Actions : [Insulin Sensitizers](#) : CK(87) : AC(16)

[A low calorie diet enriched with legumes, L-arginine and selenium reduces abdominal obesity in premenopausal women.](#) - GMI Summary

Pubmed Data : J Res Med Sci. 2010 Nov;15(6):331-43. PMID: [21526106](#)

Article Published Date : Nov 01, 2010

Authors : Mohammad Alizadeh, Sevana Daneghian, Aida Ghaffari, Alireza Ostadrahimi, Abdolrasoul Safaeiyan, Rassul Estakhri, Bahram Pourghasem Gargari

Study Type : Human Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#), [Legumes : CK\(13\) : AC\(2\)](#), [Selenium : CK\(402\) : AC\(92\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#)

[Administration of L-arginine and citrulline to patients improve the condition of heart failure patients with preserved ejection fraction.](#) - GMI Summary

Pubmed Data : Cardiol J. 2010;17(6):612-8. PMID: [21154265](#)

Article Published Date : Jan 01, 2010

Authors : Juan José Orozco-Gutiérrez, Lilia Castillo-Martínez, Arturo Orea-Tejeda, Oscar Vázquez-Díaz, Adrián Valdespino-Trejo, René Narváez-David, Candace Keirns-Davis, Olín Carrasco-Ortiz, Adolfo Navarro-Navarro, Rocío Sánchez-Santillán

Study Type : Human Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#), [Citrulline : CK\(74\) : AC\(14\)](#)

Diseases : [Heart Failure : CK\(452\) : AC\(85\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Cardiotonic Agents : CK\(34\) : AC\(6\)](#)

[Aged garlic extract supplemented with B vitamins, folic acid and L-arginine retards the progression of subclinical atherosclerosis.](#) - GMI Summary

Pubmed Data : Breast Cancer Res Treat. 2004 Feb;83(3):221-31. PMID: [19573556](#)

Article Published Date : Feb 01, 2004

Authors : Matthew J Budoff, Naser Ahmadi, Khawar M Gul, Sandy T Liu, Ferdinand R Flores, Jima Tiano, Junichiro Takasu, Elizabeth Miller, Sotirios Tsimikas

Study Type : Human Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#), [B-complex : CK\(184\) : AC\(32\)](#), [Garlic : CK\(372\) : AC\(142\)](#), [Vitamin B-12 : CK\(492\) : AC\(98\)](#)

Diseases : [Arterial Calcification : CK\(99\) : AC\(21\)](#), [Atherosclerosis : CK\(461\) : AC\(71\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Cardioprotective : CK\(540\) : AC\(179\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

[Aged garlic extract supplemented with B vitamins, folic acid and L-arginine retards the progression of subclinical atherosclerosis.](#) - GMI Summary

Pubmed Data : Prev Med. 2009 Aug-Sep;49(2-3):101-7. Epub 2009 Jun 30. PMID: [19573556](#)

Article Published Date : Aug 01, 2009

Authors : Matthew J Budoff, Naser Ahmadi, Khawar M Gul, Sandy T Liu, Ferdinand R Flores, Jima Tiano, Junichiro Takasu, Elizabeth Miller, Sotirios Tsimikas

Study Type : Human Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#), [B-complex : CK\(184\) : AC\(32\)](#), [Garlic : CK\(372\) : AC\(142\)](#), [Vitamin B-12 : CK\(492\) : AC\(98\)](#)

Diseases : [Atherosclerosis : CK\(461\) : AC\(71\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

[Arginine may be beneficial for ameliorating vascular insulin resistance in obesity and diabetes.](#) - GMI Summary

Pubmed Data : Biofactors. 2009 Jan-Feb;35(1):21-7. PMID: [19319842](#)

Article Published Date : Jan 01, 2009

Authors : Guoyao Wu, Cynthia J Meininger

Study Type : Review

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Pharmacological Actions : [Nitric Oxide Inhibitor : CK\(88\) : AC\(52\)](#)

[Coconut kernel protein favorably modifies the effect of coconut oil on serum lipids.](#) - GMI Summary

Pubmed Data : Plant Foods Hum Nutr. 1999;53(2):133-44. PMID: [10472790](#)

Article Published Date : Jan 01, 1999

Authors : K G Padmakumaran Nair, T Rajamohan, P A Kurup

Study Type : Human Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#), [Coconut : CK\(99\) : AC\(35\)](#), [Coconut Oil : CK\(59\) : AC\(17\)](#), [Coconut Protein : CK\(11\) : AC\(3\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Anti-Adipogenic : CK\(79\) : AC\(38\)](#), [Hypolipidemic : CK\(282\) : AC\(75\)](#)

[Coconut protein is able to reduce hyperlipidemia and peroxidative effect induced by high fat cholesterol containing diet and these effects are mainly mediated by the L-arginine present in it.](#) - GMI Summary

Pubmed Data : Clin Ther. 2010 May;32(5):909-14. PMID: [11883511](#)

Article Published Date : May 01, 2010

Authors : G Salil, T Rajamohan

Study Type : Animal Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#), [Coconut : CK\(99\) : AC\(35\)](#), [Coconut Protein : CK\(11\) : AC\(3\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Hypolipidemic : CK\(282\) : AC\(75\)](#)

[Dietary L-arginine supplementation reduces fat mass in Zucker diabetic fatty rats.](#) - GMI Summary

Pubmed Data : J Nutr. 2005 Apr;135(4):714-21. PMID: [15795423](#)

Article Published Date : Apr 01, 2005

Authors : Wenjiang J Fu, Tony E Haynes, Ripra Kohli, Jianbo Hu, Wenjuan Shi, Thomas E Spencer, Raymond J Carroll, Cynthia J Meininger, Guoyao Wu

Study Type : Animal Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Pharmacological Actions : [Lipolytic : CK\(49\) : AC\(14\)](#)

[L-arginine ameliorates cardiac matrix remodelling in insulin resistant rats.](#) - GMI Summary

Pubmed Data : Eur J Clin Invest. 2008 Nov;38(11):849-56. PMID: [19021703](#)

Article Published Date : Nov 01, 2008

Authors : L D Monti, E Galluccio, P Lucotti, E Setola, S Costa, B Fontana, M Oldani, D Merante, P Di Blasi, E Bosi, P M Piatti

Study Type : Animal Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Pharmacological Actions : [Cardioprotective : CK\(540\) : AC\(179\)](#)

[L-arginine compares favorably with calcium channel blockers in the treatment of hypoxic pulmonary hypertension and right ventricular hypertrophy.](#) - GMI Summary

Pubmed Data : Zhonghua Jie He He Hu Xi Za Zhi. 1994 Dec;17(6):372-4, 385. PMID: [7712585](#)

Article Published Date : Dec 01, 1994

Authors : M R Li, S C Chen, G Ma

Study Type : Animal Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#)

Diseases : [Pulmonary Hypertension : CK\(108\) : AC\(34\)](#), [Right Ventricular Hypertrophy : CK\(32\) : AC\(11\)](#)

Additional Keywords : [Drugs: Calcium Channel Blockers : CK\(3\) : AC\(1\)](#), [Natural Substances Versus Drugs : CK\(832\) : AC\(164\)](#)

[L-arginine improve the NO production and prevents glomerular hypertrophy in the offspring of diabetic mothers.](#) - GMI Summary

Pubmed Data : Pediatr Res. 2007 Aug;62(2):145-50. PMID: [17597655](#)

Article Published Date : Aug 01, 2007

Authors : Maria de Fatima Cavanal, Guiomar Nascimento Gomes, Andre L Forti, Silvia Oliveira Rocha, Maria do Carmo Pinho Franco, Zuleica B Fortes, Frida Zaladek Gil

Study Type : Animal Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#)

Diseases : [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Gestational Diabetes : CK\(24\) : AC\(5\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Prenatal Nutrition: Prevention of Problems : CK\(243\) : AC\(34\)](#)

Pharmacological Actions : [Nitric Oxide Enhancer : CK\(126\) : AC\(32\)](#), [Vasodilator Agents : CK\(223\) : AC\(50\)](#)

[L-arginine improves blood pressure and vascular compliance in 29 healthy individuals.](#) - GMI Summary

Pubmed Data : Altern Med Rev. 2006 Mar;11(1):23-9. PMID: [16597191](#)

Article Published Date : Mar 01, 2006

Authors : Alan L Miller

Study Type : Human Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#)

Diseases : [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Antihypertensive Agents : CK\(158\) : AC\(35\)](#)

[L-arginine increases circulating endothelial progenitor cells in hypercholesterolemic rabbits.](#) - GMI Summary

Pubmed Data : Int J Cardiol. 2010 Aug 20;143(2):213-6. Epub 2009 Jan 24. PMID: [19167766](#)

Article Published Date : Aug 20, 2010

Authors : Shaghayegh Haghjooy Javanmard, Yousof Gheisari, Masoud Soleimani, Mehdi Nematbakhsh, Alireza Monajemi

Study Type : Animal Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#)

Diseases : [Atherosclerosis : CK\(461\) : AC\(71\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Additional Keywords : [Endothelial Progenitor Cells \(EPCs\) : CK\(2\) : AC\(1\)](#)

[L-arginine infusions have an ameliorative effect in hypertensive pregnant women.](#) - GMI Summary

Pubmed Data : J Matern Fetal Neonatal Med. 2004 Jul;16(1):23-6. PMID: [15370078](#)

Article Published Date : Jul 01, 2004

Authors : I Neri, I Blasi, F Facchinetti

Study Type : Human Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#), [Hypertension: Pre-Eclampsia Induced : CK\(77\) : AC\(11\)](#)

Pharmacological Actions : [Antihypertensive Agents : CK\(158\) : AC\(35\)](#)

[L-arginine prevents endothelial dysfunction in a hypercholesterolemic rabbit model.](#) - GMI Summary

Pubmed Data : Lipids Health Dis. 2008;7:27. Epub 2008 Aug 2. PMID: [18673573](#)

Article Published Date : Jan 01, 2008

Authors : Mehdi Nematbakhsh, Shaghayegh Haghjooyjavanmard, Farzaneh Mahmoodi, Ali Reza Monajemi

Study Type : Animal Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#)

Diseases : [Aortic Plaques : CK\(19\) : AC\(8\)](#), [Aortic Stenosis : CK\(41\) : AC\(11\)](#), [Atherosclerosis : CK\(461\) : AC\(71\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Intima Media Thickening : CK\(151\) : AC\(42\)](#)

Pharmacological Actions : [Apoptotic : CK\(1423\) : AC\(1028\)](#), [Cardioprotective : CK\(540\) : AC\(179\)](#)

[L-arginine prevents endothelial dysfunction in a hypercholesterolemic rabbit model.](#) - GMI Summary

Pubmed Data : Lipids Health Dis. 2008;7:27. Epub 2008 Aug 2. PMID: [18673573](#)

Article Published Date : Jan 01, 2008

Authors : Mehdi Nematbakhsh, Shaghayegh Haghjooyjavanmard, Farzaneh Mahmoodi, Ali Reza Monajemi

Study Type : Animal Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#)

Diseases : [Aortic Plaques : CK\(19\) : AC\(8\)](#), [Aortic Stenosis : CK\(41\) : AC\(11\)](#), [Atherosclerosis : CK\(461\) : AC\(71\)](#), [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Intima Media Thickening : CK\(151\) : AC\(42\)](#)

Pharmacological Actions : [Apoptotic : CK\(1423\) : AC\(1028\)](#), [Cardioprotective : CK\(540\) : AC\(179\)](#)

[L-arginine prevents endothelial dysfunction in rats with chronic renal failure.](#) - GMI

Summary

Pubmed Data : J Cardiovasc Pharmacol. 2007 Mar;49(3):131-9. PMID: [17414224](#)

Article Published Date : Mar 01, 2007

Authors : Kohei Yamamizu, Kazuya Shinozaki, Kazuhide Ayajiki, Munekazu Gemba, Tomio Okamura

Study Type : Animal Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#)

Diseases : [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Kidney Failure: Chronic : CK\(134\) : AC\(17\)](#)

Pharmacological Actions : [Superoxide Dismutase Up-regulation : CK\(91\) : AC\(29\)](#), [Vasodilator Agents : CK\(223\) : AC\(50\)](#)

Additional Keywords : [Drug Synergy : CK\(244\) : AC\(116\)](#)

[L-arginine reduces symptoms of pregnancy-induced hypertension.](#) - GMI Summary

Pubmed Data : J Matern Fetal Neonatal Med. 2006 May;19(5):277-81. PMID: [16753767](#)

Article Published Date : May 01, 2006

Authors : Isabella Neri, Valerio M Jasonni, Gian Franco Gori, Immacolata Blasi, Fabio Facchinetti

Study Type : Human Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#), [Hypertension: Pre-Eclampsia Induced : CK\(77\) : AC\(11\)](#)

Pharmacological Actions : [Antihypertensive Agents : CK\(158\) : AC\(35\)](#)

[L-arginine supplementation decreased hypertension \(HT\), proteinuria, and ADMA levels indicating that taking L-arginine may be beneficial in preeclampsia treatment.](#) - GMI

Summary

Pubmed Data : Cell Biochem Funct. 2008 Sep-Oct;26(5):648-53. PMID: [18521818](#)

Article Published Date : Sep 01, 2008

Authors : Zekiye Sultan Altun, Sezer Uysal, Gul Guner, Osman Yilmaz, Cemal Posaci

Study Type : Animal Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#), [Hypertension: Pre-Eclampsia Induced : CK\(77\) : AC\(11\)](#), [Oxidative Stress : CK\(1631\) : AC\(660\)](#), [Pre-Eclampsia : CK\(173\) : AC\(26\)](#)

[L-arginine supplementation reduces cardiac noradrenergic neurotransmission in spontaneously hypertensive rats. - GMI Summary](#)

Pubmed Data : J Mol Cell Cardiol. 2009 Jul;47(1):149-55. Epub 2009 Apr 9. PMID: [19362092](#)

Article Published Date : Jul 01, 2009

Authors : Chee-Wan Lee, Dan Li, Keith M Channon, David J Paterson

Study Type : Animal Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#)

Diseases : [Cardiac noradrenergic hyperactivity : CK\(2\) : AC\(1\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Nitric Oxide Inhibitor : CK\(88\) : AC\(52\)](#)

[L0arginine supplementation improves endothelial function and myocardial perfusion in a swine model of chronic myocardial ischemia. - GMI Summary](#)

Pubmed Data : Surgery. 2005 Aug;138(2):291-8. PMID: [16153439](#)

Article Published Date : Aug 01, 2005

Authors : Yasunari Nakai, Pierre Voisine, Cesario Bianchi, Shu-Hua Xu, Jun Feng, Tamer Malik, Audrey Rosinberg, Frank W Sellke

Study Type : Animal Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#)

Diseases : [Coronary Artery Disease : CK\(912\) : AC\(131\)](#), [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Myocardial Ischemia : CK\(83\) : AC\(36\)](#)

Pharmacological Actions : [Nitric Oxide Inhibitor : CK\(88\) : AC\(52\)](#)

[Long-term N-acetylcysteine and L-arginine administration reduces endothelial activation and systolic blood pressure in hypertensive patients with type 2 diabetes. - GMI Summary](#)

Pubmed Data : Diabetes Care. 2008 May;31(5):940-4. Epub 2008 Feb 11. PMID: [18268065](#)

Article Published Date : May 01, 2008

Authors : Valentino Martina, Andi Masha, Valentina Ramella Gigliardi, Loredana Brocato, Enzo Manzato, Arrigo Berchio, Paola Massarenti, Fabio Settanni, Lara Della Casa, Stefania Bergamini, Anna Iannone

Study Type : Human Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#), [NAC \(N-acetyl-L-cysteine\) : CK\(204\) : AC\(63\)](#)

Diseases : [C-Reactive Protein : CK\(425\) : AC\(72\)](#), [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Fibrinogen: Elevated : CK\(81\) : AC\(13\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Intima Media Thickening : CK\(151\) : AC\(42\)](#)

Pharmacological Actions : [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#), [Vascular Cell Adhesion Molecule-1 Inhibitor : CK\(65\) : AC\(20\)](#)

[Long-term oral L-arginine administration improves peripheral and hepatic insulin sensitivity in type 2 diabetic patients. - GMI Summary](#)

Pubmed Data : Diabetes Care. 2001 May;24(5):875-80. PMID: [11347747](#)

Article Published Date : May 01, 2001

Authors : P M Piatti, L D Monti, G Valsecchi, F Magni, E Setola, F Marchesi, M Galli-Kienle, G Pozza, K G Alberti

Study Type : Human Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Hypotensive : CK\(239\) : AC\(45\)](#), [Insulin Sensitizers : CK\(87\) : AC\(16\)](#)

[Long-term oral L-arginine treatment has a beneficial effect when added to a hypocaloric diet and exercise training program in obese, insulin-resistant type 2 diabetic patients.](#) - GMI

Summary

Pubmed Data : Am J Physiol Endocrinol Metab. 2006 Nov;291(5):E906-12. Epub 2006 Jun 13. PMID: [16772327](#)

Article Published Date : Nov 01, 2006

Authors : Pietro Lucotti, Emanuela Setola, Lucilla D Monti, Elena Galluccio, Sabrina Costa, Emilia P Sandoli, Isabella Fermo, Giovanni Rabaiotti, Roberto Gatti, PierMarco Piatti

Study Type : Human Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Insulin Sensitizers : CK\(87\) : AC\(16\)](#)

[Oral L-arginine improves endothelial dysfunction in patients with essential hypertension.](#) - GMI Summary

Pubmed Data : Int J Cardiol. 2002 Dec;86(2-3):317-23. PMID: [12419572](#)

Article Published Date : Dec 01, 2002

Authors : John P Lekakis, Sotirios Papathanassiou, Theodoros G Papaioannou, Christos M Papamichael, Nikos Zakopoulos, Vassilios Kotsis, Anna G Dagle, Kimon Stamatelopoulos, Athanassios Protogerou, Stamatios F Stamatelopoulos

Study Type : Human Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#)

Diseases : [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

[Pharmokinetics-Pharmacodynamics: L-arginine-induced vasodilation in healthy humans.](#) - GMI Summary

Pubmed Data : Br J Clin Pharmacol. 1998 Nov;46(5):489-97. PMID: [9833603](#)

Article Published Date : Nov 01, 1998

Authors : S M Bode-Böger, R H Böger, A Galland, D Tsikas, J C Frölich

Study Type : Human Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#)

Diseases : [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Vasodilator Agents : CK\(223\) : AC\(50\)](#)

[There is a strong association between L-arginine supplementation and blood pressure reduction.](#) - GMI Summary

Pubmed Data : Med Sci Monit. 2010 May;16(5):CR266-71. PMID: [20424555](#)

Article Published Date : May 01, 2010

Authors : Jarosław Ast, Anna Jablecka, Paweł Bogdanski, Iwona Smolarek, Hanna Krauss, Ewa Chmara

Study Type : Human Study

Additional Links

Substances : [Arginine](#) : CK(854) : AC(168)

Diseases : [Hypertension](#) : CK(1319) : AC(254)

Pharmacological Actions : [Antihypertensive Agents](#) : CK(158) : AC(35)

Whey

[A fermented milk containing whey protein concentrate has a positive effect on serum lipids and blood pressure in rats and healthy men. - GMI Summary](#)

Pubmed Data : J Dairy Sci. 2000 Feb;83(2):255-63. PMID: [10714858](#)

Article Published Date : Feb 01, 2000

Authors : M Kawase, H Hashimoto, M Hosoda, H Morita, A Hosono

Study Type : Human Study

Additional Links

Substances : [Fermented Foods and Beverages](#) : CK(528) : AC(127), [Whey](#) : CK(269) : AC(70)

Diseases : [Cholesterol: LDL/HDL ratio](#) : CK(287) : AC(52), [High Cholesterol](#) : CK(865) : AC(192), [Hypertension](#) : CK(1319) : AC(254), [Triglycerides: Elevated](#) : CK(227) : AC(64)

Pharmacological Actions : [Hypolipidemic](#) : CK(282) : AC(75), [Hypotensive](#) : CK(239) : AC(45)

[A fermented whey product has therapeutic value in the treatment of metabolic syndrome. - GMI Summary](#)

Pubmed Data : J Med Food. 2010 Jun;13(3):509-19. PMID: [20406141](#)

Article Published Date : Jun 01, 2010

Authors : J Beaulieu, E Millette, E Trottier, L-P Précourt, C Dupont, P Lemieux

Study Type : Human Study

Additional Links

Substances : [Fermented Foods and Beverages](#) : CK(528) : AC(127), [Lactobacillus probiotics](#) : CK(904) : AC(143), [Whey](#) : CK(269) : AC(70)

Diseases : [Dyslipidemias](#) : CK(157) : AC(29), [Hypertension](#) : CK(1319) : AC(254), [Insulin Resistance](#) : CK(707) : AC(184), [Metabolic Syndrome X](#) : CK(376) : AC(97)

Pharmacological Actions : [Hypoglycemic Agents](#) : CK(441) : AC(143)

[Whey protein but not soy protein favorably alters body weight and composition in overweight and obese adults. - GMI Summary](#)

Pubmed Data : J Nutr. 2011 Jun 15. Epub 2011 Jun 15. PMID: [21677076](#)

Article Published Date : Jun 15, 2011

Authors : David J Baer, Kim S Stote, David R Paul, G Keith Harris, William V Rumpler, Beverly A Clevidence

Study Type : Human Study

Additional Links

Substances : [Whey](#) : CK(269) : AC(70)

Diseases : [Abdominal Obesity \(Midsection Fat\)](#) : CK(227) : AC(47), [Overweight](#) : CK(367) : AC(82)

Additional Keywords : [Soy Versus Whey](#) : CK(10) : AC(1)

[Whey protein improves blood pressure and vascular function in overweight and obese individuals. - GMI Summary](#)

Pubmed Data : Obesity (Silver Spring). 2010 Jul;18(7):1354-9. Epub 2009 Nov 5. PMID: [19893505](#)

Article Published Date : Jul 01, 2010

Authors : Sebely Pal, Vanessa Ellis

Study Type : Human Study

Additional Links

Substances : [Whey : CK\(269\) : AC\(70\)](#)

Diseases : [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

[Whey proteins improve fasting lipids and insulin levels in overweight and obese individuals.](#) - GMI Summary

Pubmed Data : Br J Nutr. 2010 Sep;104(5):716-23. Epub 2010 Apr 9. PMID: [20377924](#)

Article Published Date : Sep 01, 2010

Authors : Sebely Pal, Vanessa Ellis, Satvinder Dhaliwal

Study Type : Human Study

Additional Links

Substances : [Whey : CK\(269\) : AC\(70\)](#)

Diseases : [Hyperlipidemia : CK\(403\) : AC\(105\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Obesity : CK\(963\) : AC\(251\)](#), [Overweight : CK\(367\) : AC\(82\)](#)

Pharmacological Actions : [Hypolipidemic : CK\(282\) : AC\(75\)](#), [Insulin Sensitizers : CK\(87\) : AC\(16\)](#)

Flavonoids

[Blood pressure is reduced and insulin sensitivity increased in glucose-intolerant, hypertensive subjects after 15 days of consuming high-polyphenol dark chocolate.](#) - GMI Summary

Pubmed Data : J Nutr. 2008 Sep;138(9):1671-6. PMID: [18716168](#)

Article Published Date : Sep 01, 2008

Authors : Davide Grassi, Giovambattista Desideri, Stefano Necozione, Cristina Lippi, Raffaele Casale, Giuliana Properzi, Jeffrey B Blumberg, Claudio Ferri

Study Type : Human Study

Additional Links

Substances : [Flavonoids : CK\(732\) : AC\(287\)](#), [Polyphenols : CK\(382\) : AC\(170\)](#)

Diseases : [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

[Cocoa products have blood-pressure lowering capacity.](#) - GMI Summary

Pubmed Data : Am J Hypertens. 2010 Jan;23(1):97-103. Epub 2009 Nov 12. PMID: [19910929](#)

Article Published Date : Jan 01, 2010

Authors : Steffen Desch, Johanna Schmidt, Daniela Kobler, Melanie Sonnabend, Ingo Eitel, Mahdi Sareban, Kazem Rahimi, Gerhard Schuler, Holger Thiele

Study Type : Meta Analysis

Additional Links

Substances : [Cocoa : CK\(192\) : AC\(43\)](#), [Flavonoids : CK\(732\) : AC\(287\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Hypotensive : CK\(239\) : AC\(45\)](#)

[Dark chocolate is superior to placebo in reducing systolic hypertension or diastolic prehypertension.](#) - GMI Summary

Pubmed Data : BMC Med. 2010;8:39. Epub 2010 Jun 28. PMID: [20584271](#)

Article Published Date : Jan 01, 2010

Authors : Karin Ried, Thomas Sullivan, Peter Fakler, Oliver R Frank, Nigel P Stocks

Study Type : Meta Analysis

Additional Links

Substances : [Cocoa](#) : CK(192) : AC(43), [Flavonoids](#) : CK(732) : AC(287)

Diseases : [Hypertension](#) : CK(1319) : AC(254), [Prehypertension](#) : CK(23) : AC(3)

Pharmacological Actions : [Hypotensive](#) : CK(239) : AC(45)

[Licorice ethanolic extract may be effective in preventing and ameliorating diabetes, ameliorating abdominal obesity and preventing hypertension \(three facets of metabolic syndrome\).](#) - GMI Summary

Pubmed Data : J Nutr. 2003 Nov;133(11):3369-77. PMID: [14608046](#)

Article Published Date : Nov 01, 2003

Authors : Tatsumasa Mae, Hideyuki Kishida, Tozo Nishiyama, Misuzu Tsukagawa, Eisaku Konishi, Minpei Kuroda, Yoshihiro Mimaki, Yutaka Sashida, Kazuma Takahashi, Teruo Kawada, Kaku Nakagawa, Mikio Kitahara

Study Type : Animal Study

Additional Links

Substances : [Flavonoids](#) : CK(732) : AC(287), [Licorice](#) : CK(181) : AC(79)

Diseases : [Abdominal Obesity \(Midsection Fat\)](#) : CK(227) : AC(47), [Diabetes Mellitus: Type 2](#) : CK(2227) : AC(301), [Hypertension](#) : CK(1319) : AC(254), [Metabolic Syndrome X](#) : CK(376) : AC(97)

Additional Keywords : [Plant Extracts](#) : CK(3121) : AC(1098)

[Melatonin and pycnogenol have a therapeutic role in the treatment fo endothelial dysfunction.](#) - GMI Summary

Pubmed Data : Int J Mol Med. 2003 Aug;12(2):269-73. PMID: [20421515](#)

Article Published Date : Aug 01, 2003

Authors : Rita Rezzani, Enzo Porteri, Carolina De Ciuceis, Francesca Bonomini, Luigi F Rodella, Silvia Paiardi, Gianluca E M Boari, Caterina Platto, Annamaria Pilu, Daniele Avanzi, Damiano Rizzoni, Enrico Agabiti Rosei

Study Type : Animal Study

Additional Links

Substances : [Flavonoids](#) : CK(732) : AC(287), [Melatonin](#) : CK(322) : AC(113)

Diseases : [Endothelial Dysfunction](#) : CK(649) : AC(164), [Hypertension](#) : CK(1319) : AC(254)

Pharmacological Actions : [Antihypertensive Agents](#) : CK(158) : AC(35), [Cyclooxygenase 2 Inhibitors](#) : CK(275) : AC(163), [Matrix metalloproteinase-2 \(MMP-2\) inhibitor](#) : CK(149) : AC(66)

[Muskmelon, watermelon and mango fruit may have an ameliorative effect on atherogenic diet induced dyslipidemia, hypothyroidism and hyperglycemia in rats.](#) - GMI Summary

Pubmed Data : Biofactors. 2008;33(1):13-24. PMID: [19276533](#)

Article Published Date : Jan 01, 2008

Authors : Hamendra Singh Parmar, Anand Kar

Study Type : Animal Study

Additional Links

Substances : [Flavonoids](#) : CK(732) : AC(287), [Mango](#) : CK(23) : AC(11), [Muskmelon](#) : CK(3) : AC(1), [Polyphenols](#) :

[CK\(382\) : AC\(170\)](#), [Vitamin C : CK\(817\) : AC\(234\)](#), [Watermelon : CK\(40\) : AC\(9\)](#)

Diseases : [Arteriosclerosis : CK\(409\) : AC\(137\)](#), [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Hyperglycemia : CK\(145\) : AC\(47\)](#),
[Hypothyroidism : CK\(391\) : AC\(75\)](#), [Oxidative Stress : CK\(1631\) : AC\(660\)](#)

Pharmacological Actions : [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

[Pycnogenol has therapeutic value in the prevention of jet lag in healthy and hypertensive patients.](#) - GMI Summary

Pubmed Data : Minerva Cardioangiol. 2008 Oct;56(5 Suppl):3-9. PMID: [19597404](#)

Article Published Date : Oct 01, 2008

Authors : G Belcaro, M R Cesarone, R J Steigerwalt, A Di Renzo, M G Grossi, A Ricci, S Stuard, A Ledda, M Dugall, U Cornelli, M Cacchio

Study Type : Human Study

Additional Links

Substances : [Flavonoids : CK\(732\) : AC\(287\)](#), [Pycnogenol : CK\(301\) : AC\(63\)](#)

Diseases : [Brain Edema : CK\(11\) : AC\(3\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Jet Lag : CK\(18\) : AC\(5\)](#)

Pharmacological Actions : [Platelet Aggregation Inhibitors : CK\(138\) : AC\(34\)](#)

[Pycnogenol improves diabetes control, lowers cardiovascular disease risk factors, and reduces the need for hypertension medication in type diabetic patients.](#) - GMI Summary

Pubmed Data : Nutr Res. 2008 May;28(5):315-20. PMID: [19083426](#)

Article Published Date : May 01, 2008

Authors : Sherma Zibadi, Peter J Rohdewald, Danna Park, Ronald Ross Watson

Study Type : Human Study

Additional Links

Substances : [Flavonoids : CK\(732\) : AC\(287\)](#), [Pycnogenol : CK\(301\) : AC\(63\)](#)

Diseases : [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [Diabetes: Cardiovascular Illness : CK\(501\) : AC\(102\)](#),
[Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

Additional Keywords : [Drug Sparing : CK\(280\) : AC\(47\)](#), [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

[Pycnogenol improves endothelial function of hypertensive patients.](#) - GMI Summary

Pubmed Data : Life Sci. 2004 Jan 2;74(7):855-62. PMID: [14659974](#)

Article Published Date : Jan 02, 2004

Authors : Ximing Liu, Junping Wei, Fengsen Tan, Shengming Zhou, Gudrun Würthwein, Peter Rohdewald

Study Type : Human Study

Additional Links

Substances : [Flavonoids : CK\(732\) : AC\(287\)](#), [Pycnogenol : CK\(301\) : AC\(63\)](#)

Diseases : [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Platelet Aggregation Inhibitors : CK\(138\) : AC\(34\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

[Pycnogenol prevents damage in the microcirculation of hypertensive patients, and allows the dose of anti-hypertensive drugs to be reduced in most patients.](#) - GMI Summary

Pubmed Data : Clin Appl Thromb Hemost. 2006 Oct;12(4):440-4. PMID: [17000888](#)

Article Published Date : Oct 01, 2006

Authors : Gianni Belcaro, Maria Rosaria Cesarone, Andrea Ricci, Umberto Cornelli, Peter Rodhewald, Andrea Ledda, Andrea Di Renzo, Stefano Stuard, Marisa Cacchio, Giulia Vinciguerra, Giuseppe Gizzi, Luciano Pellegrini, Mark Dugall, Filiberto Fano

Study Type : Human Study

Additional Links

Substances : [Flavonoids : CK\(732\) : AC\(287\)](#), [Pycnogenol : CK\(301\) : AC\(63\)](#)

Diseases : [Edema : CK\(92\) : AC\(13\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Antihypertensive Agents : CK\(158\) : AC\(35\)](#), [Calcium Channel Blockers : CK\(78\) : AC\(21\)](#), [Platelet Aggregation Inhibitors : CK\(138\) : AC\(34\)](#)

Additional Keywords : [Drug-Plant-Vitamin Synergies : CK\(816\) : AC\(275\)](#), [Drug Sparing : CK\(280\) : AC\(47\)](#)

[Red wine polyphenols prevent cyclosporine-induced nephrotoxicity at the level of the intrinsic apoptotic pathway.](#) - GMI Summary

Pubmed Data : *Physiol Res.* 2009;58(4):511-9. Epub 2008 Jul 25. PMID: [18656999](#)

Article Published Date : Jan 01, 2009

Authors : R Rezzani, S Tengattini, F Bonomini, F Filippini, O Pechánová, R Bianchi, R Andriantsitohaina

Study Type : In Vitro Study

Additional Links

Substances : [Flavonoids : CK\(732\) : AC\(287\)](#), [Polyphenols : CK\(382\) : AC\(170\)](#), [Red Wine Extract : CK\(60\) : AC\(25\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#), [Kidney Damage: Drug-Induced : CK\(69\) : AC\(18\)](#), [Oxidative Stress : CK\(1631\) : AC\(660\)](#)

Pharmacological Actions : [Apoptotic : CK\(1423\) : AC\(1028\)](#), [Renoprotective : CK\(173\) : AC\(76\)](#)

[Red wine polyphenols prevent hypertension and endothelial dysfunction in rats.](#) - GMI Summary

Pubmed Data : *Cardiovasc Res.* 2006 Sep 1;71(4):794-802. Epub 2006 May 26. PMID: [16822492](#)

Article Published Date : Sep 01, 2006

Authors : Mamadou Sarr, Marta Chataigneau, Sandrine Martins, Christa Schott, Jasser El Bedoui, Min-Ho Oak, Bernard Muller, Thierry Chataigneau, Valérie B Schini-Kerth

Study Type : Animal Study

Additional Links

Substances : [Flavonoids : CK\(732\) : AC\(287\)](#), [Polyphenols : CK\(382\) : AC\(170\)](#), [Red Wine Extract : CK\(60\) : AC\(25\)](#)

Diseases : [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Cardioprotective : CK\(540\) : AC\(179\)](#), [Vasodilator Agents : CK\(223\) : AC\(50\)](#)

[Short-term cocoa consumption significantly reduces blood cholesterol.](#) - GMI Summary

Pubmed Data : *Am J Clin Nutr.* 2010 Jul;92(1):218-25. Epub 2010 May 26. PMID: [20504978](#)

Article Published Date : Jul 01, 2010

Authors : Lei Jia, Xuan Liu, Yong Yi Bai, Shao Hua Li, Kai Sun, Chen He, Rutai Hui

Study Type : Human Study

Additional Links

Substances : [Cocoa : CK\(192\) : AC\(43\)](#), [Flavonoids : CK\(732\) : AC\(287\)](#), [Polyphenols : CK\(382\) : AC\(170\)](#)

Diseases : [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Anticholesteremic Agents : CK\(180\) : AC\(38\)](#)

[Sprouting buckwheat triggers a variety of nutritional changes increasing hypocholesterolemic, hypotriglyceridemic, and antioxidative activities.](#) - GMI Summary

Pubmed Data : J Agric Food Chem. 2008 Feb 27;56(4):1216-23. Epub 2008 Jan 24. PMID: [18217700](#)

Article Published Date : Feb 27, 2008

Authors : Li-Yun Lin, Chiung-Chi Peng, Ya-Lu Yang, Robert Y Peng

Study Type : In Vitro Study

Additional Links

Substances : [Buckwheat : CK\(50\) : AC\(16\)](#), [Flavonoids : CK\(732\) : AC\(287\)](#), [Polyphenols : CK\(382\) : AC\(170\)](#), [Quercetin : CK\(265\) : AC\(134\)](#), [Rutin : CK\(75\) : AC\(29\)](#), [Sprouts : CK\(72\) : AC\(35\)](#), [Vitamin C : CK\(817\) : AC\(234\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hyperlipidemia : CK\(403\) : AC\(105\)](#), [Triglycerides: Elevated : CK\(227\) : AC\(64\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Hypolipidemic : CK\(282\) : AC\(75\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

[The high intake of flavanol-rich cocoa by the Kuna Indians may be responsible for their low blood pressure.](#) - GMI Summary

Pubmed Data : J Cardiovasc Pharmacol. 2006;47 Suppl 2:S103-9; discussion 119-21. PMID: [16794446](#)

Article Published Date : Jan 01, 2006

Authors : Marjorie L McCullough, Kati Chevaux, Lilian Jackson, Mack Preston, Gregorio Martinez, Harold H Schmitz, Caroline Coletti, Hannia Campos, Norman K Hollenberg

Study Type : Human Study

Additional Links

Substances : [Catechin : CK\(314\) : AC\(124\)](#), [Cocoa : CK\(192\) : AC\(43\)](#), [Flavonoids : CK\(732\) : AC\(287\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Additional Keywords : [Proanthocyanidins : CK\(129\) : AC\(45\)](#)

[The regular consumption of cocoa products containing flavanols may reduce risk of cardiovascular disease.](#) - GMI Summary

Pubmed Data : Asia Pac J Clin Nutr. 2008;17 Suppl 1:284-7. PMID: [18296357](#)

Article Published Date : Jan 01, 2008

Authors : John W Erdman, LeaAnn Carson, Catherine Kwik-Urbe, Ellen M Evans, Robin R Allen

Study Type : Human Study

Additional Links

Substances : [Cocoa : CK\(192\) : AC\(43\)](#), [Flavonoids : CK\(732\) : AC\(287\)](#)

Diseases : [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Additional Keywords : [Risk Reduction : CK\(1065\) : AC\(195\)](#)

Curcumin

[Curcumin attenuates diet-induced hypercholesterolemia in rats.](#) - GMI Summary

Pubmed Data : Med Sci Monit. 2005 Jul;11(7):BR228-234. Epub 2005 Jun 29. PMID: [15990684](#)

Article Published Date : Jul 01, 2005

Authors : Hossam M M Arafa

Study Type : Animal Study

Additional Links

Substances : [Curcumin : CK\(2792\) : AC\(1459\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hypercholesterolemia : CK\(692\) : AC\(159\)](#)

[Curcumin can decrease pulmonary arterial pressure, improve pulmonary vessel remodeling and inhibit the deposition of collagen I in pulmonary arterioles.](#) - GMI Summary

Pubmed Data : Zhongguo Ying Yong Sheng Li Xue Za Zhi. 2006 Aug;22(3):257-61. PMID: [21158062](#)

Article Published Date : Aug 01, 2006

Authors : Quan Lin, Liang-xing Wang, Shao-xian Chen, Xiang-feng Zhou, Xiao-ying Huang, Xiao-fang Fan

Study Type : Animal Study

Additional Links

Substances : [Curcumin : CK\(2792\) : AC\(1459\)](#)

Diseases : [Hypercapnia : CK\(2\) : AC\(1\)](#), [Hypoxia : CK\(84\) : AC\(39\)](#), [Pulmonary Hypertension : CK\(108\) : AC\(34\)](#)

Pharmacological Actions : [Cardioprotective : CK\(540\) : AC\(179\)](#)

[Curcumin exhibits cholesterol lowering properties.](#) - GMI Summary

Pubmed Data : Nutr Res Pract. 2010 Jun;4(3):191-5. Epub 2010 Jun 28. PMID: [20607063](#)

Article Published Date : Jun 01, 2010

Authors : Minji Kim, Yangha Kim

Study Type : Animal Study

Additional Links

Substances : [Curcumin : CK\(2792\) : AC\(1459\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Hypolipidemic : CK\(282\) : AC\(75\)](#)

[Curcumin has a protective effect against hyperlipidemia and insulin resistance in high-fat-fed hamsters.](#) - GMI Summary

Pubmed Data : J Am Diet Assoc. 2005 Jun;105(6):967-70. PMID: [18940397](#)

Article Published Date : Jun 01, 2005

Authors : Eun-Mi Jang, Myung-Sook Choi, Un Ju Jung, Myung-Joo Kim, Hye-Jin Kim, Seon-Min Jeon, Su-Kyung Shin, Chi-Nam Seong, Mi-Kyung Lee

Study Type : Animal Study

Additional Links

Substances : [Curcumin : CK\(2792\) : AC\(1459\)](#)

Diseases : [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [Hyperlipidemia : CK\(403\) : AC\(105\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Oxidative Stress : CK\(1631\) : AC\(660\)](#)

[Curcumin has a wide range of potential anti-obesity properties.](#) - GMI Summary

Pubmed Data : Eur J Nutr. 2011 Apr ;50(3):151-61. Epub 2011 Mar 27. PMID: [21442412](#)

Article Published Date : Apr 01, 2011

Authors : Adeeb Shehzad, Taewook Ha, Fazli Subhan, Young Sup Lee

Study Type : Review

Additional Links

Substances : [Curcumin : CK\(2792\) : AC\(1459\)](#)

Diseases : [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Pharmacological Actions : [Adiponectin upregulation : CK\(6\) : AC\(2\)](#), [Anti-Inflammatory Agents : CK\(999\) : AC\(390\)](#), [Leptin Down-Regulation : CK\(2\) : AC\(1\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

[Curcumin improves insulin resistance in skeletal muscle of rats.](#) - GMI Summary

Pubmed Data : Nutr Metab Cardiovasc Dis. 2010 Mar 12. Epub 2010 Mar 12. PMID: [20227862](#)

Article Published Date : Mar 12, 2010

Authors : L-X Na, Y-L Zhang, Y Li, L-Y Liu, R Li, T Kong, C-H Sun

Study Type : Animal Study

Additional Links

Substances : [Curcumin : CK\(2792\) : AC\(1459\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Insulin Sensitizers : CK\(87\) : AC\(16\)](#)

[Curcumin inhibits LDL cholesterol induced hepatic stellate cell activation associated with fatty liver and liver fibrosis.](#) - GMI Summary

Pubmed Data : Endocrinology. 2009 Dec;150(12):5384-94. Epub 2009 Oct 6. PMID: [19808779](#)

Article Published Date : Dec 01, 2009

Authors : Qiaohua Kang, Anping Chen

Study Type : In Vitro Study

Additional Links

Substances : [Curcumin : CK\(2792\) : AC\(1459\)](#)

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Liver Fibrosis : CK\(183\) : AC\(74\)](#)

Pharmacological Actions : [Hepatoprotective : CK\(580\) : AC\(245\)](#)

[Curcumin inhibits up-regulation of tumor necrosis factor alpha and reverses experimentally induced insulin resistance in adipocytes.](#) - GMI Summary

Pubmed Data : Biomed Environ Sci. 2009 Feb;22(1):32-9. PMID: [19462685](#)

Article Published Date : Feb 01, 2009

Authors : Shao-Ling Wang, Ying Li, Ying Wen, Yan-Feng Chen, Li-Xin Na, Song-Tao Li, Chang-Hao Sun

Study Type : In Vitro Study

Additional Links

Substances : [Curcumin : CK\(2792\) : AC\(1459\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Interleukin-6 Downregulation : CK\(393\) : AC\(131\)](#), [Tumor Necrosis Factor \(TNF\) Alpha Inhibitor : CK\(858\) : AC\(330\)](#)

[Curcumin is a potential glucose-lowering agent and antioxidant in type 2 diabetic mice.](#) - GMI Summary

Pubmed Data : Phytother Res. 2008 Feb;22(2):180-4. PMID: [18398869](#)

Article Published Date : Feb 01, 2008

Authors : Kwon-Il Seo, Myung-Sook Choi, Un Ju Jung, Hye-Jin Kim, Jiyoung Yeo, Seon-Min Jeon, Mi-Kyung Lee

Study Type : Animal Study

Additional Links

Substances : [Curcumin : CK\(2792\) : AC\(1459\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

[Curcumin might increase the effect of vitamin C in protecting the function of endothelial cells through its anti-oxidant with hypoglycemic and hypolipidemic actions.](#) - GMI Summary

Pubmed Data : Clin Hemorheol Microcirc. 2006;35(4):481-9. PMID: [17148847](#)

Article Published Date : Jan 01, 2006

Authors : Suthiluk Patumraj, Natchaya Wongeakin, Patarin Sridulyakul, Amporn Jariyapongskul, Narisa Futrakul, Srichitra Bunnag

Study Type : Animal Study

Additional Links

Substances : [Curcumin : CK\(2792\) : AC\(1459\)](#), [Vitamin C : CK\(817\) : AC\(234\)](#)

Diseases : [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#), [Hypolipidemic : CK\(282\) : AC\(75\)](#)

Additional Keywords : [Natural Substance Synergy : CK\(129\) : AC\(74\)](#)

[Curcumin might significantly decrease the level of insulin resistance and leptin resistance caused by the high fat diet.](#) - GMI Summary

Pubmed Data : J Atheroscler Thromb. 2009;16(6):870-7. Epub 2009 Dec 22. PMID: [19176142](#)

Article Published Date : Jan 01, 2009

Authors : Yan Yu, Sen-ke Hu, Hong Yan

Study Type : Animal Study

Additional Links

Substances : [Curcumin : CK\(2792\) : AC\(1459\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Leptin Resistance : CK\(11\) : AC\(5\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Pharmacological Actions : [Apoptotic : CK\(1423\) : AC\(1028\)](#)

[Curcumin prevents cardiac remodeling secondary to chronic renal failure in rats.](#) - GMI Summary

Pubmed Data : Am J Physiol Heart Circ Physiol. 2010 Oct;299(4):H975-84. Epub 2010 Jul 2. PMID: [20601462](#)

Article Published Date : Oct 01, 2010

Authors : Siddhartha S Ghosh, Fadi N Salloum, Antonio Abbate, Richard Krieg, Domenic A Sica, Todd W Gehr, Rakesh C Kukreja

Study Type : Animal Study

Additional Links

Substances : [Curcumin : CK\(2792\) : AC\(1459\)](#)

Diseases : [Cardiac Hypertrophy : CK\(48\) : AC\(22\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Kidney Failure: Chronic : CK\(134\) : AC\(17\)](#)

Pharmacological Actions : [Cardioprotective : CK\(540\) : AC\(179\)](#)

[Curcumin prevents fructose-induced hepatic steatosis driven by hepatic insulin and leptin resistance.](#) - GMI Summary

Pubmed Data : Hepatology. 2010 May;51(5):1555-66. PMID: [20222050](#)

Article Published Date : May 01, 2010

Authors : Jian-Mei Li, Yu-Cheng Li, Ling-Dong Kong, Qing-Hua Hu

Study Type : Animal Study

Additional Links

Substances : [Curcumin : CK\(2792\) : AC\(1459\)](#)

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Leptin Resistance : CK\(11\) : AC\(5\)](#)

Pharmacological Actions : [Hepatoprotective : CK\(580\) : AC\(245\)](#)

[Curcumin prevents restonsis in a rabbit artery stent model.](#) - GMI Summary

Pubmed Data : Catheter Cardiovasc Interv. 2009 Nov 15;74(6):881-8. PMID: [19496118](#)

Article Published Date : Nov 15, 2009

Authors : Hyung-Suk Jang, Hye Yeong Nam, Jeong-Min Kim, Dong-Hoon Hahm, So Hee Nam, Koung Li Kim, Jae-Ryang Joo, Wonhee Suh, Jong-Sang Park, Duk Kyung Kim, Hyeon-Cheol Gwon

Study Type : Animal Study

Additional Links

Substances : [Curcumin : CK\(2792\) : AC\(1459\)](#)

Diseases : [Coronary Artery Disease : CK\(912\) : AC\(131\)](#), [Coronary Stenting : CK\(18\) : AC\(5\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Antiproliferative : CK\(956\) : AC\(676\)](#), [Cardioprotective : CK\(540\) : AC\(179\)](#), [Cardiovascular Agents : CK\(45\) : AC\(10\)](#)

[Curcumin works synergistically with insulin on muscle cell glucose metabolism. - GMI Summary](#)

Pubmed Data : Food Chem Toxicol. 2010 Aug-Sep;48(8-9):2366-73. Epub 2010 Jun 1. PMID: [20561944](#)

Article Published Date : Aug 01, 2010

Authors : Changkeun Kang, Euikyung Kim

Study Type : In Vitro Study

Additional Links

Substances : [Curcumin : CK\(2792\) : AC\(1459\)](#)

Diseases : [Diabetes Insipidus : CK\(11\) : AC\(4\)](#), [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

Additional Keywords : [Drug Synergy : CK\(244\) : AC\(116\)](#)

[Curcumin, capsaicin and garlic attenuate adverse blood changes associated with a cholesterol-enriched diet. - GMI Summary](#)

Pubmed Data : Br J Nutr. 2005 Jan;93(1):81-91. PMID: [15705229](#)

Article Published Date : Jan 01, 2005

Authors : Rayavara K Kempaiah, Krishnapura Srinivasan

Study Type : Animal Study

Additional Links

Substances : [Capsaicin : CK\(44\) : AC\(25\)](#), [Curcumin : CK\(2792\) : AC\(1459\)](#), [Garlic : CK\(372\) : AC\(142\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

[Curcumin, capsaicin, and garlic have a beneficial effect in the red blood cells and liver of cholesterol fed rats. - GMI Summary](#)

Pubmed Data : Acta Pharmacol Sin. 2007 Oct;28(10):1559-65. PMID: [15296079](#)

Article Published Date : Oct 01, 2007

Authors : R K Kempaiah, K Srinivasan

Study Type : Animal Study

Additional Links

Substances : [Capsaicin : CK\(44\) : AC\(25\)](#), [Curcumin : CK\(2792\) : AC\(1459\)](#), [Garlic : CK\(372\) : AC\(142\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Cardioprotective : CK\(540\) : AC\(179\)](#), [Hepatoprotective : CK\(580\) : AC\(245\)](#)

[Dietary curcumin and capsaicin have hypolipidemic and antioxidant effects.](#) - GMI Summary

Pubmed Data : Life Sci. 2001 Dec 7;70(3):253-67. PMID: [17960446](#)

Article Published Date : Dec 07, 2001

Authors : H Manjunatha, K Srinivasan

Study Type : Animal Study

Additional Links

Substances : [Capsaicin : CK\(44\) : AC\(25\)](#), [Curcumin : CK\(2792\) : AC\(1459\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Hypolipidemic : CK\(282\) : AC\(75\)](#)

[Tetrahydrocurcumin increases the number of total cellular insulin binding sites resulting in a significant increase in plasma insulin.](#) - GMI Summary

Pubmed Data : J Biosci. 2008 Mar;33(1):63-72. PMID: [18376071](#)

Article Published Date : Mar 01, 2008

Authors : Pidan Murugan, Leelavinothan Pari, Chippada Appa Rao

Study Type : Animal Study

Additional Links

Substances : [Curcumin : CK\(2792\) : AC\(1459\)](#), [Tetrahydrocurcumin : CK\(37\) : AC\(20\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

[The administration of low-dose curcumin showed a trend of reduction in total cholesterol level and LDL cholesterol level in acute coronary syndrome patients.](#) - GMI Summary

Pubmed Data : Acta Med Indones. 2008 Oct;40(4):201-10. PMID: [19151449](#)

Article Published Date : Oct 01, 2008

Authors : Idrus Alwi, Teguh Santoso, Slamet Suyono, Bambang Sutrisna, Frans D Suyatna, Siti Boedina Kresno, Sri Ernie

Study Type : Human Study

Additional Links

Substances : [Curcumin : CK\(2792\) : AC\(1459\)](#)

Diseases : [Cholesterol: LDL/HDL ratio : CK\(287\) : AC\(52\)](#), [Coronary Artery Disease : CK\(912\) : AC\(131\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Enzyme Inhibitors : CK\(340\) : AC\(201\)](#), [Hypolipidemic : CK\(282\) : AC\(75\)](#)

Soy Protein

[A daily supplement of soy protein prevents the increase in subcutaneous and total abdominal fat in postmenopausal women.](#) - GMI Summary

Pubmed Data : Fertil Steril. 2007 Dec;88(6):1609-17. Epub 2007 Apr 6. PMID: [17412329](#)

Article Published Date : Dec 01, 2007

Authors : Cynthia K Sites, Brian C Cooper, Michael J Toth, Amalia Gastaldelli, Ali Arabshahi, Stephen Barnes

Study Type : Human Study

Additional Links

Substances : [Isoflavones : CK\(428\) : AC\(122\)](#), [Soy Protein : CK\(245\) : AC\(56\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#)

[Dietary soy protein isolate attenuates metabolic syndrome in rats.](#) - GMI Summary

Pubmed Data : J Nutr. 2009 Aug;139(8):1431-8. Epub 2009 Jun 10. PMID: [19515742](#)

Article Published Date : Aug 01, 2009

Authors : Martin J Ronis, Ying Chen, Jamie Badeaux, Thomas M Badger

Study Type : Animal Study

Additional Links

Substances : [Daidzein : CK\(76\) : AC\(27\)](#), [Genistein : CK\(395\) : AC\(169\)](#), [Isoflavones : CK\(428\) : AC\(122\)](#), [Soy Protein : CK\(245\) : AC\(56\)](#)

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Pharmacological Actions : [Anticholesteremic Agents : CK\(180\) : AC\(38\)](#)

[G. cambogia extract, soy peptide, and L-carnitine attenuated visceral fat accumulation and improved dyslipidemia in a rat model with high fat diet-induced obesity.](#) - GMI Summary

Pubmed Data : Genes Nutr. 2008 Feb;2(4):353-8. PMID: [18850230](#)

Article Published Date : Feb 01, 2008

Authors : [No authors listed]

Study Type : Animal Study

Additional Links

Substances : [Carnitine : CK\(285\) : AC\(67\)](#), [Garcinia cambogia : CK\(6\) : AC\(4\)](#), [L-Carnitine : CK\(3\) : AC\(1\)](#), [Soy Protein : CK\(245\) : AC\(56\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

[Soy proteins given as part of the daily protein intake have beneficial effects on serum LDL cholesterol levels of renal transplant recipients with moderate hypercholesterolemia.](#) - GMI Summary

Pubmed Data : J Ren Nutr. 2004 Jan;14(1):31-5. PMID: [14740328](#)

Article Published Date : Jan 01, 2004

Authors : Adamasco Cupisti, Claudia D'Alessandro, Lorenzo Ghiadoni, Ester Morelli, Vincenzo Panichi, Giuliano Barsotti

Study Type : Human Study

Additional Links

Substances : [Soy Protein : CK\(245\) : AC\(56\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#), [Kidney Transplant : CK\(37\) : AC\(7\)](#)

[Soy-based diets improve several metabolic parameters in obese rats.](#) - GMI Summary

Pubmed Data : Horm Metab Res. 2005 May;37(5):316-25. PMID: [15971156](#)

Article Published Date : May 01, 2005

Authors : J Davis, M J Iqbal, J Steinle, J Oitker, D A Higginbotham, R G Peterson, W J Banz

Study Type : Animal Study

Additional Links

Substances : [Soy Protein : CK\(245\) : AC\(56\)](#)

Diseases : [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

[Soybean protein supplementation results in a reduction in systolic and diastolic blood pressure.](#) - GMI Summary

Pubmed Data : Ann Intern Med. 2005 Jul 5;143(1):1-9. PMID: [15998749](#)

Article Published Date : Jul 05, 2005

Authors : Jiang He, Dongfeng Gu, Xigui Wu, Jichun Chen, Xiufang Duan, Jing Chen, Paul K Whelton

Study Type : Human Study

Additional Links

Substances : [Soy Protein : CK\(245\) : AC\(56\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Hypotensive : CK\(239\) : AC\(45\)](#)

[The hypotensive and anti-inflammatory effect of soy nut consumption may be due to a reduction in soluble vascular cell adhesion molecule-1 which results in an improvement in endothelial function.](#) - GMI Summary

Pubmed Data : Am J Cardiol. 2008 Jul 1;102(1):84-6. Epub 2008 Apr 16. PMID: [18572041](#)

Article Published Date : Jul 01, 2008

Authors : Melita M Nasca, Jin-Rong Zhou, Francine K Welty

Study Type : Human Study

Additional Links

Substances : [Isoflavones : CK\(428\) : AC\(122\)](#), [Soy Protein : CK\(245\) : AC\(56\)](#)

Diseases : [C-Reactive Protein : CK\(425\) : AC\(72\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Inflammation : CK\(829\) : AC\(330\)](#)

Pharmacological Actions : [Interleukin-6 Downregulation : CK\(393\) : AC\(131\)](#), [Matrix metalloproteinase-2 \(MMP-2\) inhibitor : CK\(149\) : AC\(66\)](#), [Vascular Cell Adhesion Molecule-1 Inhibitor : CK\(65\) : AC\(20\)](#)

Genistein

[Dietary soy protein isolate attenuates metabolic syndrome in rats.](#) - GMI Summary

Pubmed Data : J Nutr. 2009 Aug;139(8):1431-8. Epub 2009 Jun 10. PMID: [19515742](#)

Article Published Date : Aug 01, 2009

Authors : Martin J Ronis, Ying Chen, Jamie Badeaux, Thomas M Badger

Study Type : Animal Study

Additional Links

Substances : [Daidzein : CK\(76\) : AC\(27\)](#), [Genistein : CK\(395\) : AC\(169\)](#), [Isoflavones : CK\(428\) : AC\(122\)](#), [Soy Protein : CK\(245\) : AC\(56\)](#)

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Pharmacological Actions : [Anticholesteremic Agents : CK\(180\) : AC\(38\)](#)

[Genistein lowers blood pressure in spontaneously hypertensive rats.](#) - GMI Summary

Pubmed Data : J Nutr. 2008 Feb;138(2):297-304. PMID: [18203895](#)

Article Published Date : Feb 01, 2008

Authors : Hongwei Si, Dongmin Liu

Study Type : Animal Study

Additional Links

Substances : [Genistein : CK\(395\) : AC\(169\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Hypotensive : CK\(239\) : AC\(45\)](#)

[Genistein attenuates low temperature induced pulmonary hypertension in broiler chicks by modulating endothelial function.](#) - GMI Summary

Pubmed Data : Eur J Pharmacol. 2010 Dec 15;649(1-3):242-8. Epub 2010 Sep 18. PMID: [20854807](#)

Article Published Date : Dec 15, 2010

Authors : Ying Yang, Mingyu Gao, Zhenlong Wu, Yuming Guo

Study Type : Animal Study

Additional Links

Substances : [Genistein : CK\(395\) : AC\(169\)](#)

Diseases : [Pulmonary Hypertension : CK\(108\) : AC\(34\)](#)

Pharmacological Actions : [Nitric Oxide Enhancer : CK\(126\) : AC\(32\)](#)

[Genistein has vasodilator properties.](#) - GMI Summary

Pubmed Data : Pharmacol Res. 2010 Nov 25. Epub 2010 Nov 25. PMID: [21111822](#)

Article Published Date : Nov 25, 2010

Authors : Amanda H Y Lin, George P H Leung, Susan W S Leung, Paul M Vanhoutte, Ricky Y K Man

Study Type : Animal Study

Additional Links

Substances : [Genistein : CK\(395\) : AC\(169\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Vasodilator Agents : CK\(223\) : AC\(50\)](#)

[Genistein improves insulin sensitivity and kidney function in a dietary model of insulin resistance.](#) - GMI Summary

Pubmed Data : Ren Fail. 2008;30(6):645-54. PMID: [18661416](#)

Article Published Date : Jan 01, 2008

Authors : Nallasamy Palanisamy, Periyasamy Viswanathan, Carani Venkataraman Anuradha

Study Type : Animal Study

Additional Links

Substances : [Genistein : CK\(395\) : AC\(169\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Kidney Diseases : CK\(347\) : AC\(67\)](#)

Additional Keywords : [Fructose-Induced Insulin Resistance : CK\(44\) : AC\(14\)](#)

[Genistein, a phytoestrogen, attenuates monocrotaline-induced pulmonary hypertension, right ventricular hypertrophy, and pulmonary vascular remodeling in rats.](#) - GMI Summary

Pubmed Data : Respiration. 2006;73(1):105-12. Epub 2005 Oct 1. PMID: [16432296](#)

Article Published Date : Jan 01, 2006

Authors : Noriyuki Homma, Yoshiteru Morio, Hideki Takahashi, Akihito Yamamoto, Tsutomu Suzuki, Koichi Sato, Masashi Muramatsu, Yoshinosuke Fukuchi

Study Type : Animal Study

Additional Links

Substances : [Genistein : CK\(395\) : AC\(169\)](#)

Diseases : [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Pulmonary Hypertension : CK\(108\) : AC\(34\)](#), [Right Ventricular Hypertrophy : CK\(32\) : AC\(11\)](#)

Pharmacological Actions : [Enzyme Inhibitors : CK\(340\) : AC\(201\)](#)

[Isoflavonoids and peptides from meju, long-term fermented soybeans, increase insulin](#)

[sensitivity and exert insulinotropic effects in vitro.](#) - GMI Summary

Pubmed Data : Nutrition. 2011 Feb;27(2):244-52. Epub 2010 Jun 11. PMID: [20541368](#)

Article Published Date : Feb 01, 2011

Authors : Dae Young Kwon, Sang Mee Hong, Il Sung Ahn, Min Jung Kim, Hye Jeong Yang, Sunmin Park

Study Type : In Vitro Study

Additional Links

Substances : [Daidzein : CK\(76\) : AC\(27\)](#), [Genistein : CK\(395\) : AC\(169\)](#), [Isoflavones : CK\(428\) : AC\(122\)](#), [Soy : CK\(1229\) : AC\(332\)](#), [Soy: Fermented : CK\(69\) : AC\(23\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Pharmacological Actions : [Glucagon Like peptide 1 \(GLP-1\) Up-regulation : CK\(129\) : AC\(30\)](#), [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#), [Insulinotrophic : CK\(15\) : AC\(7\)](#)

[Soy isoflavones improve endothelial function in spontaneously hypertensive rats.](#) - GMI Summary

Pubmed Data : Pharmacology. 2003 Jun;68(2):81-8. PMID: [15958720](#)

Article Published Date : Jun 01, 2003

Authors : Rocío Vera, Milagros Galisteo, Inmaculada Concepción Villar, Manuel Sánchez, Antonio Zarzuelo, Francisco Pérez-Vizcaíno, Juan Duarte

Study Type : Animal Study

Additional Links

Substances : [Genistein : CK\(395\) : AC\(169\)](#), [Isoflavones : CK\(428\) : AC\(122\)](#), [Soy : CK\(1229\) : AC\(332\)](#)

Diseases : [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Nitric Oxide Enhancer : CK\(126\) : AC\(32\)](#)

[The combination of vitamin D with genistein results in an enhanced inhibition of lipid accumulation and induction of programmed cell death in maturing preadipocytes \(immature fat cells\).](#) - GMI Summary

Pubmed Data : Life Sci. 2002 Oct 4;71(20):2383-90. PMID: [18239559](#)

Article Published Date : Oct 04, 2002

Authors : Srujana Rayalam, Mary Anne Della-Fera, Suresh Ambati, Jeong-Yeh Yang, Hea Jin Park, Clifton A Baile

Study Type : In Vitro Study

Additional Links

Substances : [Genistein : CK\(395\) : AC\(169\)](#), [Vitamin D : CK\(976\) : AC\(213\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Pharmacological Actions : [Anti-Adipogenic : CK\(79\) : AC\(38\)](#), [Apoptotic : CK\(1423\) : AC\(1028\)](#)

Additional Keywords : [Natural Substance Synergy : CK\(129\) : AC\(74\)](#)

Fructose

[A high-fructose diet induces liver fibrosis in mice.](#) - GMI Summary

Pubmed Data : Hepatology. 2010 Sep;52(3):934-44. PMID: [20607689](#)

Article Published Date : Sep 01, 2010

Authors : Rohit Kohli, Michelle Kirby, Stavra A Xanthakos, Samir Softic, Ariel E Feldstein, Vijay Saxena, Peter H Tang, Lili Miles, Michael V Miles, William F Balistreri, Stephen C Woods, Randy J Seeley

Study Type : Animal Study

Additional Links

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Liver Fibrosis : CK\(183\) : AC\(74\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Other : [Hepatotoxic : CK\(95\) : AC\(34\)](#), [Profibrotic : CK\(4\) : AC\(2\)](#)

[A high-fructose diet is used to induce insulin resistance in the rat model.](#) - GMI Summary

Pubmed Data : Pharmacology. 2011 Jun 25;88(1-2):10-17. Epub 2011 Jun 25. PMID: [21709430](#)

Article Published Date : Jun 25, 2011

Authors : Antonieta Gómez-Solís, Ricardo De la Cruz-Cordero, Anaguiven Avalos-Soriano, Miguel Angel Duarte-Vázquez, Jorge Reyes-Esparza, Lourdes Rodríguez-Fragoso

Study Type : Animal Study

Additional Links

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Other : [Endocrine Disruptor: Insulin Resistance : CK\(50\) : AC\(18\)](#)

[Adding 10% fructose to the rat diet results within 8 wk in the development of insulin resistance, carbohydrate metabolism disorder, weight gain, hypertriglyceridemia and hyperuricemia.](#) - GMI Summary

Pubmed Data : Fiziol Zh. 2011;57(1):72-81. PMID: [21516836](#)

Article Published Date : Jan 01, 2011

Authors : A A Shuprovych, N M Hurina, O V Korpacheva-Zinych

Study Type : Animal Study

Additional Links

Diseases : [Hyperuricemia : CK\(137\) : AC\(31\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Overweight : CK\(367\) : AC\(82\)](#), [Triglycerides: Elevated : CK\(227\) : AC\(64\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Other : [Endocrine Disruptor: Insulin Resistance : CK\(50\) : AC\(18\)](#)

[Consuming fructose-sweetened, not glucose-sweetened, beverages increases visceral adiposity and lipids and decreases insulin sensitivity in overweight/obese humans.](#) - GMI Summary

Pubmed Data : J Clin Invest. 2009 May;119(5):1322-34. Epub 2009 Apr 20. PMID: [19381015](#)

Article Published Date : May 01, 2009

Authors : Kimber L Stanhope, Jean Marc Schwarz, Nancy L Keim, Steven C Griffen, Andrew A Bremer, James L Graham, Bonnie Hatcher, Chad L Cox, Artem Dyachenko, Wei Zhang, John P McGahan, Anthony Seibert, Ronald M Krauss, Sally Chiu, Ernst J Schaefer, Masumi Ai, Seiko Otokozawa, Katsuyuki Nakajima, Takamitsu Nakano, Carine Beysen, Marc K Hellerstein, Lars Berglund, Peter J Havel

Study Type : Meta Analysis

Additional Links

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Other : [Endocrine Disruptor : CK\(283\) : AC\(56\)](#)

[Dietary fructose contributes to insulin resistance and metabolic dyslipidemias.](#) - GMI

Summary

Pubmed Data : Nutr Metab (Lond). 2005 Feb 21;2(1):5. Epub 2005 Feb 21. PMID: [15723702](#)

Article Published Date : Feb 21, 2005

Authors : Heather Basciano, Lisa Federico, Khosrow Adeli

Study Type : Review

Additional Links

Diseases : [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Triglycerides: Elevated : CK\(227\) : AC\(64\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Other : [Endocrine Disruptor: Insulin Resistance : CK\(50\) : AC\(18\)](#)

[Dietary fructose may promote the development of nonalcoholic fatty liver disease, which in and of itself, can result in hepatic insulin resistance, a key feature of type 2 diabetes mellitus.](#) - GMI Summary

Pubmed Data : Trends Endocrinol Metab. 2011 Feb;22(2):60-5. Epub 2010 Nov 9. PMID: [21067942](#)

Article Published Date : Feb 01, 2011

Authors : Varman T Samuel

Study Type : Review

Additional Links

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Fatty Liver : CK\(449\) : AC\(109\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Nonalcoholic fatty liver disease \(NAFLD\) : CK\(50\) : AC\(16\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Other : [Lipogenesis Up-Regulation : CK\(10\) : AC\(6\)](#)

[Excessive dietary fructose consumption appears to contribute to metabolic syndrome and non-alcoholic fatty liver disease.](#) - GMI Summary

Pubmed Data : J Hepatol. 2008 Jun;48(6):993-9. Epub 2008 Mar 10. PMID: [18395287](#)

Article Published Date : Jun 01, 2008

Authors : Xiaosen Ouyang, Pietro Cirillo, Yuri Sautin, Shannon McCall, James L Bruchette, Anna Mae Diehl, Richard J Johnson, Manal F Abdelmalek

Study Type : Human Study

Additional Links

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Other : [Endocrine Disruptor : CK\(283\) : AC\(56\)](#)

[excessive dietary fructose consumption may underlie the development of nonalcoholic fatty liver disease and the metabolic syndrome.](#) - GMI Summary

Pubmed Data : Nat Rev Gastroenterol Hepatol. 2010 May;7(5):251-64. Epub 2010 Apr 6. PMID: [20368739](#)

Article Published Date : May 01, 2010

Authors : Jung Sub Lim, Michele Mietus-Snyder, Annie Valente, Jean-Marc Schwarz, Robert H Lustig

Study Type : Review

Additional Links

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Oxidative Stress : CK\(1631\) : AC\(660\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Other : [Endocrine Disruptor : CK\(283\) : AC\(56\)](#)

[Exercise improves fructose-induced insulin resistance, hyperinsulinemia and hypertension.](#) - GMI Summary

Pubmed Data : Hypertension. 1988 Aug;12(2):129-32. PMID: [3410522](#)

Article Published Date : Aug 01, 1988

Authors : G M Reaven, H Ho, B B Hoffman

Study Type : Animal Study

Additional Links

Diseases : [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Hyperinsulinism : CK\(123\) : AC\(35\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Therapeutic Actions : [Exercise : CK\(281\) : AC\(57\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Other : [Endocrine Disruptor: Insulin Resistance : CK\(50\) : AC\(18\)](#), [Hypertensive : CK\(68\) : AC\(9\)](#)

[Fructose can be used to induce insulin resistance and hypertension in rats.](#) - GMI Summary

Pubmed Data : Hypertension. 1987 Nov;10(5):512-6. PMID: [3311990](#)

Article Published Date : Nov 01, 1987

Authors : I S Hwang, H Ho, B B Hoffman, G M Reaven

Study Type : Animal Study

Additional Links

Diseases : [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Other : [Endocrine Disruptor: Insulin Resistance : CK\(50\) : AC\(18\)](#), [Hypertensive : CK\(68\) : AC\(9\)](#)

[Fructose causes renal damage in an animal model of metabolic syndrome.](#) - GMI Summary

Pubmed Data : *Pediatr Nephrol.* 2011 May 1. Epub 2011 May 1. PMID: [21533627](#)

Article Published Date : May 01, 2011

Authors : Nallasamy Palanisamy, Carani Venkataraman Anuradha

Study Type : Animal Study

Additional Links

Diseases : [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Kidney Damage : CK\(103\) : AC\(36\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Other : [Inflammatory : CK\(72\) : AC\(24\)](#), [Renotoxic : CK\(105\) : AC\(24\)](#)

[Fructose consumption is associated with metabolic syndrome.](#) - Article 1. - GMI Summary

Pubmed Data : *Curr Opin Lipidol.* 2008 Feb;19(1):16-24. PMID: [18196982](#)

Article Published Date : Feb 01, 2008

Authors : Kimber L Stanhope, Peter J Havel

Study Type : Commentary

Additional Links

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

[Fructose consumption is associated with metabolic syndrome. - Article 2. - GMI Summary](#)

Pubmed Data : Am J Clin Nutr. 2008 Dec;88(6):1733S-1737S. PMID: [19064538](#)

Article Published Date : Dec 01, 2008

Authors : Kimber L Stanhope, Peter J Havel

Study Type : Commentary

Additional Links

Diseases : [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

[Fructose consumption: potential mechanisms for its effects to increase visceral adiposity and induce dyslipidemia and insulin resistance. - GMI Summary](#)

Pubmed Data : Curr Opin Lipidol. 2008 Feb;19(1):16-24. PMID: [18196982](#)

Article Published Date : Feb 01, 2008

Authors : Kimber L Stanhope, Peter J Havel

Study Type : Review

Additional Links

Diseases : [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [High Cholesterol: very low density lipoprotein \(VLDL\) : CK\(21\) : AC\(9\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Triglycerides: Elevated : CK\(227\) : AC\(64\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

[Fructose has been strongly linked with hypertension, hyperuricemia and inflammation in experimental models and humans. - GMI Summary](#)

Pubmed Data : Nephrol Dial Transplant. 2011 May 25. Epub 2011 May 25. PMID: [21613382](#)

Article Published Date : May 25, 2011

Authors : Andrzej Brymora, Mariusz Flisinski, Richard J Johnson, Grazyna Goszka, Anna Stefanska, Jacek Manitius

Study Type : Human Study

Additional Links

Diseases : [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Hyperuricemia : CK\(137\) : AC\(31\)](#), [Inflammation : CK\(829\) : AC\(330\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Other : [Hypertensive : CK\(68\) : AC\(9\)](#), [Inflammatory : CK\(72\) : AC\(24\)](#)

[Fructose induces gluconeogenesis and lipogenesis which may result in adverse metabolic changes. - GMI Summary](#)

Pubmed Data : J Endocrinol. 2011 Mar;208(3):273-83. Epub 2011 Jan 6. PMID: [21212096](#)

Article Published Date : Mar 01, 2011

Authors : Paul W Caton, Nanda K Nayuni, Noorafza Q Khan, Elizabeth G Wood, Roger Corder

Study Type : Animal Study

Additional Links

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Other : [Endocrine Disruptor: Insulin Resistance : CK\(50\) : AC\(18\)](#), [Gluconeogenesis Up-Regulation : CK\(8\) : AC\(4\)](#), [Lipogenesis Up-Regulation : CK\(10\) : AC\(6\)](#), [SIRT1 Modulator : CK\(2\) : AC\(1\)](#)

[Fructose induces insulin resistance and myocardial hypertrophy in the animal model. - GMI](#)

Summary

Pubmed Data : Peptides. 2011 Jun 1. Epub 2011 Jun 1. PMID: [21664393](#)

Article Published Date : Jun 01, 2011

Authors : Jing Zhang, Bao-Hong Zhang, Yan-Rong Yu, Chao-Shu Tang, Yong-Fen Qi

Study Type : Animal Study

Additional Links

Diseases : [Cardiac Hypertrophy](#) : CK(48) : AC(22), [Insulin Resistance](#) : CK(707) : AC(184)

Problem Substances : [Fructose](#) : CK(304) : AC(85)

Other : [Cardiotoxic](#) : CK(467) : AC(53), [Endocrine Disruptor: Insulin Resistance](#) : CK(50) : AC(18)

[Fructose is implicated in the pathogenesis of nonalcoholic fatty liver disease. - GMI](#)

Summary

Pubmed Data : J Nutr Biochem. 2009 Sep;20(9):657-62. PMID: [19679262](#)

Article Published Date : Sep 01, 2009

Authors : Astrid Spruss, Ina Bergheim

Study Type : Review

Additional Links

Diseases : [Fatty Liver](#) : CK(449) : AC(109), [Metabolic Syndrome X](#) : CK(376) : AC(97), [Nonalcoholic fatty liver disease \(NAFLD\)](#) : CK(50) : AC(16)

Problem Substances : [Fructose](#) : CK(304) : AC(85)

Other : [Hepatotoxic](#) : CK(95) : AC(34)

[Fructose is used in an experimental model to induce metabolic syndrome. - GMI Summary](#)

Pubmed Data : Acta Med Iran. 2011 May;49(5):277-83. PMID: [21713743](#)

Article Published Date : May 01, 2011

Authors : Mohamm Reza Shahraki, Mehdi Harati, Ahamd Reza Shahraki

Study Type : Animal Study

Additional Links

Diseases : [Cholesterol: LDL/HDL ratio](#) : CK(287) : AC(52), [High Cholesterol: very low density lipoprotein \(VLDL\)](#) : CK(21) : AC(9), [Insulin: Elevated](#) : CK(123) : AC(35), [Insulin Resistance](#) : CK(707) : AC(184), [Metabolic Syndrome X](#) : CK(376) : AC(97), [Triglycerides: Elevated](#) : CK(227) : AC(64)

Problem Substances : [Fructose](#) : CK(304) : AC(85)

Other : [Endocrine Disruptor: Insulin Resistance](#) : CK(50) : AC(18)

[Fructose is used to induce fatty liver disease in a rat model of insulin resistance. - GMI](#)

Summary

Pubmed Data : J Diabetes. 2009 Dec;1(4):278-87. Epub 2009 Jul 21. PMID: [20923528](#)

Article Published Date : Dec 01, 2009

Authors : Sumiyabanu Mohamed Salih, Palanisamy Nallasamy, Pooranaperundevi Muniyandi, Viswanathan Periyasami, Anuradha Carani Venkatraman

Study Type : Animal Study

Additional Links

Diseases : [Fatty Liver](#) : CK(449) : AC(109), [Fructose-Induced Toxicity](#) : CK(129) : AC(41), [Insulin Resistance](#) : CK(707) : AC(184), [Liver Stress: Fructose-Induced](#) : CK(21) : AC(10), [Nonalcoholic fatty liver disease \(NAFLD\)](#) : CK(50) : AC(16)

Problem Substances : [Fructose](#) : CK(304) : AC(85)

Other : [Hepatotoxic : CK\(95\) : AC\(34\)](#)

[Fructose is used to induce fatty liver disease in a rat model.](#) - GMI Summary

Pubmed Data : Lipids Health Dis. 2010;9:116. Epub 2010 Oct 14. PMID: [20946638](#)

Article Published Date : Jan 01, 2010

Authors : José D Botezelli, Rodrigo F Mora, Rodrigo A Dalia, Leandro P Moura, Lucieli T Cambri, Ana C Ghezzi, Fabrício A Voltarelli, Maria A R Mello

Study Type : Animal Study

Additional Links

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Nonalcoholic fatty liver disease \(NAFLD\) : CK\(50\) : AC\(16\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Other : [Hepatotoxic : CK\(95\) : AC\(34\)](#)

[Fructose is used to induce hypertension in the animal model.](#) - GMI Summary

Pubmed Data : Hypertension. 1989 Aug;14(2):117-20. PMID: [2569446](#)

Article Published Date : Aug 01, 1989

Authors : G M Reaven, H Ho, B B Hoffmann

Study Type : Animal Study

Additional Links

Diseases : [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Insulin: Elevated : CK\(123\) : AC\(35\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Other : [Endocrine Disruptor: Insulin Resistance : CK\(50\) : AC\(18\)](#), [Hypertensive : CK\(68\) : AC\(9\)](#)

[Fructose is used to induce insulin resistance and elevated plasma triglyceride levels in rats.](#) - GMI Summary

Pubmed Data : Am J Clin Nutr. 1989 Jun;49(6):1155-63. PMID: [2658534](#)

Article Published Date : Jun 01, 1989

Authors : A W Thorburn, L H Storlien, A B Jenkins, S Khouri, E W Kraegen

Study Type : Animal Study

Additional Links

Diseases : [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Triglycerides: Elevated : CK\(227\) : AC\(64\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Other : [Dyslipidemic : CK\(22\) : AC\(7\)](#), [Endocrine Disruptor: Insulin Resistance : CK\(50\) : AC\(18\)](#)

[Fructose is used to induce insulin resistance in an animal mode of type 2 diabetes.](#) - GMI Summary

Pubmed Data : Acupunct Med. 2011 Jun 22. Epub 2011 Jun 22. PMID: [21697213](#)

Article Published Date : Jun 22, 2011

Authors : Atsushi Tominaga, Naoto Ishizaki, Yoshihisa Naruse, Hiroshi Kitakoji, Yoshiharu Yamamura

Study Type : Animal Study

Additional Links

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Other : [Diabetogenic : CK\(89\) : AC\(9\)](#), [Endocrine Disruptor: Insulin Resistance : CK\(50\) : AC\(18\)](#)

[Fructose is used to induce insulin resistance in the animal model.](#) - GMI Summary

Pubmed Data : [Cardiovasc Drugs Ther. 2011 Jun 14. Epub 2011 Jun 14. PMID: 21671014](#)

Article Published Date : Jun 14, 2011

Authors : Prem Prakash, Vivek Khanna, Vishal Singh, Anupam Jyoti, Manish Jain, Ravi Shankar Keshari, Manoj Kumar Barthwal, Madhu Dikshit

Study Type : Animal Study

Additional Links

Diseases : [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Other : [Endocrine Disruptor: Insulin Resistance : CK\(50\) : AC\(18\)](#)

[Fructose is used to induced hyperinsulinemia, hypertriglyceridemia and hypertension in an animal moodel.](#) - GMI Summary

Pubmed Data : [Am J Hypertens. 1989 Jun;2\(6 Pt 1\):424-7. PMID: 2527043](#)

Article Published Date : Jun 01, 1989

Authors : I S Hwang, W C Huang, J N Wu, L R Shian, G M Reaven

Study Type : Animal Study

Additional Links

Diseases : [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Hyperinsulinism : CK\(123\) : AC\(35\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Triglycerides: Elevated : CK\(227\) : AC\(64\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Other : [Dyslipidemic : CK\(22\) : AC\(7\)](#), [Hypertensive : CK\(68\) : AC\(9\)](#)

[Fructose may cause metabolic syndrome due to its ability to raise uric acid levels.](#) - GMI Summary

Pubmed Data : [Am J Physiol Renal Physiol. 2006 Mar;290\(3\):F625-31. Epub 2005 Oct 18. PMID: 16234313](#)

Article Published Date : Mar 01, 2006

Authors : Takahiko Nakagawa, Hanbo Hu, Sergey Zharikov, Katherine R Tuttle, Robert A Short, Olena Glushakova, Xiaosen Ouyang, Daniel I Feig, Edward R Block, Jaime Herrera-Acosta, Jawaharlal M Patel, Richard J Johnson

Study Type : Animal Study

Additional Links

Diseases : [Hyperuricemia : CK\(137\) : AC\(31\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

[Fructose-fed animals develop hyperglycemia, hyperinsulinemia, hypertriglyceridemia and insulin resistance.](#) - GMI Summary

Pubmed Data : [Chem Biol Interact. 2011 Jun 24. Epub 2011 Jun 24. PMID: 21708140](#)

Article Published Date : Jun 24, 2011

Authors : Allur Subramaniyan Sivakumar, Carani Venkatraman Anuradha

Study Type : Animal Study

Additional Links

Diseases : [Hyperglycemia : CK\(145\) : AC\(47\)](#), [Insulin: Elevated : CK\(123\) : AC\(35\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Triglycerides: Elevated : CK\(227\) : AC\(64\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Other : [Endocrine Disruptor: Insulin Resistance : CK\(50\) : AC\(18\)](#)

[Fructose-induced hyperuricemia may play a role in essential hypertension. - GMI Summary](#)

Pubmed Data : Metabolism. 1977 Nov;26(11):1219-23. PMID: [909398](#)

Article Published Date : Nov 01, 1977

Authors : E Fiaschi, B Baggio, S Favaro, A Antonello, E Camerin, S Todesco, A Borsatti

Study Type : Human Study

Additional Links

Diseases : [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Hyperuricemia : CK\(137\) : AC\(31\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

[High doses of fructose raise the BP and cause the features of metabolic syndrome. - GMI Summary](#)

Pubmed Data : Int J Obes (Lond). 2010 Mar;34(3):454-61. Epub 2009 Dec 22. PMID: [20029377](#)

Article Published Date : Mar 01, 2010

Authors : S E Perez-Pozo, J Schold, T Nakagawa, L G Sánchez-Lozada, R J Johnson, J López Lillo

Study Type : Human Study

Additional Links

Diseases : [Diabetes: Cardiovascular Illness : CK\(501\) : AC\(102\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

[High fructose consumption combined with low dietary magnesium intake may increase the incidence of the metabolic syndrome by inducing inflammation. - GMI Summary](#)

Pubmed Data : Magnes Res. 2006 Dec;19(4):237-43. PMID: [17402291](#)

Article Published Date : Dec 01, 2006

Authors : Y Rayssiguier, E Gueux, W Nowacki, E Rock, A Mazur

Study Type : Animal Study

Additional Links

Diseases : [Inflammation : CK\(829\) : AC\(330\)](#), [Magnesium Deficiency : CK\(44\) : AC\(9\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Other : [Endocrine Disruptor: Insulin Resistance : CK\(50\) : AC\(18\)](#), [Inflammatory : CK\(72\) : AC\(24\)](#)

[High fructose corn syrup may contribute to the pathogenesis of nonalcoholic fatty liver disease \(NAFLD\). - GMI Summary](#)

Pubmed Data : Obesity (Silver Spring). 2009 Nov;17(11):2003-13. Epub 2009 Mar 12. PMID: [19282820](#)

Article Published Date : Nov 01, 2009

Authors : Kate S Collison, Soad M Saleh, Razan H Bakheet, Rana K Al-Rabiah, Angela L Inglis, Nadine J Makhoul, Zakia M Maqbool, Marya Zia Zaidi, Mohammed A Al-Johi, Futwan A Al-Mohanna

Study Type : In Vitro Study

Additional Links

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Nonalcoholic fatty liver disease \(NAFLD\) : CK\(50\) : AC\(16\)](#), [Oxidative Stress : CK\(1631\) : AC\(660\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#), [High Fructose Corn Syrup : CK\(47\) : AC\(9\)](#)

Other : [Hepatotoxic : CK\(95\) : AC\(34\)](#)

Higher sugar-sweetened beverage consumption is associated with higher serum uric acid levels and systolic blood pressure in US adolescents. - GMI Summary

Pubmed Data : J Pediatr. 2009 Jun;154(6):807-13. Epub 2009 Apr 17. PMID: [19375714](#)

Article Published Date : Jun 01, 2009

Authors : Stephanie Nguyen, Hyon K Choi, Robert H Lustig, Chi-yuan Hsu

Study Type : Human Study

Additional Links

Diseases : [Adolescent Diseases : CK\(25\) : AC\(3\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Hyperuricemia : CK\(137\) : AC\(31\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#), [Sugar Sweetened Beverages : CK\(40\) : AC\(6\)](#), [Sugary soda : CK\(91\) : AC\(17\)](#)

Low-grade inflammation and oxidative stress contribute to the development of insulin resistance in fructose fed rats. - GMI Summary

Pubmed Data : Chin J Physiol. 2009 Apr 30;52(2):65-71. PMID: [19764341](#)

Article Published Date : Apr 30, 2009

Authors : Tse-Tsung Liu, Kuang-Chung Shih, Chung-Cheng Kao, Wei-Tung Cheng, Po-Shiuan Hsieh

Study Type : Animal Study

Additional Links

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#), [Inflammation : CK\(829\) : AC\(330\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Nocturnal hypertension has occurred in mice consuming a high fructose diet. - GMI Summary

Pubmed Data : Auton Neurosci. 2006 Dec 30;130(1-2):41-50. Epub 2006 Jul 13. PMID: [16843071](#)

Article Published Date : Dec 30, 2006

Authors : Vera Farah, Khalid M Elased, Yanfang Chen, Mary P Key, Tatiana S Cunha, Maria Claudia Irigoyen, Mariana Morris

Study Type : Animal Study

Additional Links

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#), [Hypertension: Nocturnal : CK\(2\) : AC\(1\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Rats fed fructose-enriched diets have characteristics of nonalcoholic hepatic steatosis. - GMI Summary

Pubmed Data : J Nutr. 2009 Nov;139(11):2067-71. Epub 2009 Sep 23. PMID: [19776184](#)

Article Published Date : Nov 01, 2009

Authors : Takahiro Kawasaki, Kanji Igarashi, Tatsuki Koeda, Keiichiro Sugimoto, Kazuya Nakagawa, Shuichi Hayashi, Ryoichi Yamaji, Hiroshi Inui, Toshio Fukusato, Toshikazu Yamanouchi

Study Type : Animal Study

Additional Links

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Liver Stress: Fructose-Induced : CK\(21\) : AC\(10\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Nonalcoholic fatty liver disease \(NAFLD\) :](#)

[CK\(50\) : AC\(16\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Other : [Hepatotoxic : CK\(95\) : AC\(34\)](#), [Lipogenesis Up-Regulation : CK\(10\) : AC\(6\)](#)

[Saturated fat \(trans fatty acids\) and fructose play a role in the pathogenesis of nonalcoholic fatty liver disease. - GMI Summary](#)

Pubmed Data : Annu Rev Pathol. 2010;5:145-71. PMID: [20078219](#)

Article Published Date : Jan 01, 2010

Authors : Dina G Tiniakos, Miriam B Vos, Elizabeth M Brunt

Study Type : Animal Study

Additional Links

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Liver Stress: Fructose-Induced : CK\(21\) : AC\(10\)](#), [Nonalcoholic fatty liver disease \(NAFLD\) : CK\(50\) : AC\(16\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#), [Trans Fatty Acids : CK\(202\) : AC\(34\)](#)

Other : [Hepatotoxic : CK\(95\) : AC\(34\)](#)

[Soft drinks consumption \(fructose\) and nonalcoholic fatty liver disease. - GMI Summary](#)

Pubmed Data : World J Gastroenterol. 2010 Jun 7;16(21):2579-88. PMID: [20518077](#)

Article Published Date : Jun 07, 2010

Authors : William Nseir, Fares Nassar, Nimer Assy

Study Type : Review

Additional Links

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Liver Stress: Fructose-Induced : CK\(21\) : AC\(10\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Nonalcoholic fatty liver disease \(NAFLD\) : CK\(50\) : AC\(16\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#), [High Fructose Corn Syrup : CK\(47\) : AC\(9\)](#), [Sugary soda : CK\(91\) : AC\(17\)](#)

Other : [Endocrine Disruptor: Insulin Resistance : CK\(50\) : AC\(18\)](#), [Hepatotoxic : CK\(95\) : AC\(34\)](#)

[The consumption of fructose-containing sugar-sweetened beverage is associated with a more atherogenic LDL lipid profile. - GMI Summary](#)

Pubmed Data : Am J Clin Nutr. 2011 Jun 15. Epub 2011 Jun 15. PMID: [21677052](#)

Article Published Date : Jun 15, 2011

Authors : Isabelle Aeberli, Philipp A Gerber, Michel Hochuli, Sibylle Kohler, Sarah R Haile, Ioanna Gouni-Berthold, Heiner K Berthold, Giatgen A Spinaz, Kaspar Berneis

Study Type : Human Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [Dyslipidemias : CK\(157\) : AC\(29\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#), [Sugar Sweetened Beverages : CK\(40\) : AC\(6\)](#), [Sugary soda : CK\(91\) : AC\(17\)](#)

Other : [Atherogenic : CK\(11\) : AC\(2\)](#), [Cardiotoxic : CK\(467\) : AC\(53\)](#)

[Vanadyl sulfate ameliorates insulin resistance and restores plasma dehydroepiandrosterone-sulfate levels in fructose-fed, insulin-resistant rats. - GMI Summary](#)

Pubmed Data : Clin Biochem. 2004 Aug;37(8):694-7. PMID: [15302613](#)

Article Published Date : Aug 01, 2004

Authors : Mehdi Harati, Mohsen Ani

Study Type : Animal Study

Additional Links

Substances : [Vanadyl Sulfate : CK\(2\) : AC\(1\)](#)

Diseases : [DHEA: Low : CK\(28\) : AC\(7\)](#), [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Hyperinsulinism : CK\(123\) : AC\(35\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Exercise

[Acute exercise protects against doxorubicin cardiotoxicity.](#) - GMI Summary

Pubmed Data : Integr Cancer Ther. 2008 Sep;7(3):147-54. PMID: [18815146](#)

Article Published Date : Sep 01, 2008

Authors : Karen Y Wonders, David S Hydock, Carole M Schneider, Reid Hayward

Study Type : Human Study

Additional Links

Diseases : [Chemotherapy-Induced Toxicity : CK\(642\) : AC\(180\)](#), [Chemotherapy-Induced Toxicity: Doxorubicin : CK\(59\) : AC\(23\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Oxidative Stress : CK\(1631\) : AC\(660\)](#)

Therapeutic Actions : [Exercise : CK\(281\) : AC\(57\)](#)

Additional Keywords : [Drug: Doxorubicin : CK\(120\) : AC\(48\)](#)

[Aerobic interval training improves the cardiovascular risk profile in patients with metabolic syndrome.](#) - GMI Summary

Pubmed Data : Eur J Cardiovasc Prev Rehabil. 2009 Feb;16(1):47-52. PMID: [19169141](#)

Article Published Date : Feb 01, 2009

Authors : Anja Bye, Arnt E Tjønnå, Tomas O Stølen, Ragnhild E N Røsbjørgen, Ulrik Wisløff

Study Type : Human Study

Additional Links

Diseases : [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Therapeutic Actions : [Exercise : CK\(281\) : AC\(57\)](#)

[Consistent exercise, regardless of intensity, increases nocturnal growth hormone secretion in obese adults with metabolic syndrome.](#) - GMI Summary

Pubmed Data : J Clin Endocrinol Metab. 2009 Jun;94(6):1979-86. Epub 2009 Mar 24. PMID: [19318453](#)

Article Published Date : Jun 01, 2009

Authors : Brian A Irving, J Y Weltman, James T Patrie, Christopher K Davis, David W Brock, Damon Swift, Eugene J Barrett, Glenn A Gaesser, Arthur Weltman

Study Type : Human Study

Additional Links

Diseases : [Human Growth Hormone: Enhancement : CK\(54\) : AC\(10\)](#), [Low Human Growth Hormone : CK\(28\) : AC\(6\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Therapeutic Actions : [Exercise : CK\(281\) : AC\(57\)](#)

[Daily mechanical horseback riding on insulin sensitivity and resting metabolism in middle-aged type 2 diabetes mellitus patients.](#) - GMI Summary

Pubmed Data : Nagoya J Med Sci. 2010 Aug;72(3-4):129-37. PMID: [20942267](#)

Article Published Date : Aug 01, 2010

Authors : Yoshiyuki Hosaka, Masaru Nagasaki, Gustavo Bajotto, Youichi Shinomiya, Takahisa Ozawa, Yuzo Sato

Study Type : Human Study

Additional Links

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Therapeutic Actions : [Exercise : CK\(281\) : AC\(57\)](#)

[Exercise has a therapeutic effect on improving HDL/LDL balance and cholesterol levels in men and women.](#) - GMI Summary

Pubmed Data : N Engl J Med. 1998 Jul 2;339(1):12-20. PMID: [9647874](#)

Article Published Date : Jul 02, 1998

Authors : M L Stefanick, S Mackey, M Sheehan, N Ellsworth, W L Haskell, P D Wood

Study Type : Human Study

Additional Links

Diseases : [Cholesterol: LDL/HDL ratio : CK\(287\) : AC\(52\)](#), [HDL: Low : CK\(195\) : AC\(48\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Therapeutic Actions : [Exercise : CK\(281\) : AC\(57\)](#)

[Exercise improves fructose-induced insulin resistance, hyperinsulinemia and hypertension.](#) - GMI Summary

Pubmed Data : Hypertension. 1988 Aug;12(2):129-32. PMID: [3410522](#)

Article Published Date : Aug 01, 1988

Authors : G M Reaven, H Ho, B B Hoffman

Study Type : Animal Study

Additional Links

Diseases : [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Hyperinsulinism : CK\(123\) : AC\(35\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Therapeutic Actions : [Exercise : CK\(281\) : AC\(57\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#)

Other : [Endocrine Disruptor: Insulin Resistance : CK\(50\) : AC\(18\)](#), [Hypertensive : CK\(68\) : AC\(9\)](#)

[Exercise overcomes skeletal muscle insulin resistance.](#) - GMI Summary

Pubmed Data : Proc Natl Acad Sci U S A. 2011 Aug 1. Epub 2011 Aug 1. PMID: [21808028](#)

Article Published Date : Aug 01, 2011

Authors : Rasmus Rabøl, Kitt Falk Petersen, Sylvie Dufour, Clare Flannery, Gerald I Shulman

Study Type : Human Study

Additional Links

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Nonalcoholic fatty liver disease \(NAFLD\) : CK\(50\) : AC\(16\)](#)

Therapeutic Actions : [Exercise : CK\(281\) : AC\(57\)](#)

Pharmacological Actions : [Insulin Sensitizers : CK\(87\) : AC\(16\)](#)

[Green tea catechin consumption enhances exercise-induced abdominal fat loss in overweight and obese adults.](#) - GMI Summary

Pubmed Data : J Nutr. 2009 Feb;139(2):264-70. Epub 2008 Dec 11. PMID: [19074207](#)

Article Published Date : Feb 01, 2009

Authors : Kevin C Maki, Matthew S Reeves, Mildred Farmer, Koichi Yasunaga, Noboru Matsuo, Yoshihisa Katsuragi, Masanori Komikado, Ichiro Tokimitsu, Donna Wilder, Franz Jones, Jeffrey B Blumberg, Yolanda Cartwright

Study Type : Human Study

Additional Links

Substances : [Catechin : CK\(314\) : AC\(124\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Therapeutic Actions : [Exercise : CK\(281\) : AC\(57\)](#)

[High-intensity exercise reduces abdominal fat in obese women with metabolic syndrome.](#) - GMI Summary

Pubmed Data : Med Sci Sports Exerc. 2008 Nov;40(11):1863-72. PMID: [18845966](#)

Article Published Date : Nov 01, 2008

Authors : Brian A Irving, Christopher K Davis, David W Brock, Judy Y Weltman, Damon Swift, Eugene J Barrett, Glenn A Gaesser, Arthur Weltman

Study Type : Human Study

Additional Links

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Therapeutic Actions : [Exercise : CK\(281\) : AC\(57\)](#)

[Mechanical horseback riding improves insulin sensitivity in elder diabetic patients.](#) - GMI Summary

Pubmed Data : Diabetes Res Clin Pract. 2006 Feb;71(2):124-30. Epub 2005 Aug 18. PMID: [16105705](#)

Article Published Date : Feb 01, 2006

Authors : Masakazu Kubota, Masaru Nagasaki, Mizuho Tokudome, Youichi Shinomiya, Takahisa Ozawa, Yuzo Sato

Study Type : Human Study

Additional Links

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Therapeutic Actions : [Exercise : CK\(281\) : AC\(57\)](#)

Additional Keywords : [Mad Science : CK\(13\) : AC\(4\)](#)

[Soluble fiber intake and increased physical activity were related to decreased abdominal fat accumulationaccumulation over 5 years.](#) - GMI Summary

Pubmed Data : Obesity (Silver Spring). 2011 Jun 16. Epub 2011 Jun 16. PMID: [21681224](#)

Article Published Date : Jun 16, 2011

Authors : Kristen G Hairston, Mara Z Vitolins, Jill M Norris, Andrea M Anderson, Anthony J Hanley, Lynne E Wagenknecht

Study Type : Human Study

Additional Links

Substances : [Fiber : CK\(381\) : AC\(71\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#)

Therapeutic Actions : [Exercise : CK\(281\) : AC\(57\)](#)

[There are 9 easily measured risk factors \(smoking, lipids, hypertension, diabetes, obesity, diet, physical activity, alcohol consumption, and psychosocial factors\) that account for over 90% of the risk of acute myocardial infarction \(AMI\).](#) - GMI Summary

Pubmed Data : Orv Hetil. 2006 Apr 16;147(15):675-86. PMID: [16734179](#)

Article Published Date : Apr 16, 2006

Authors : Iván Gyárfás, Mátyás Keltai, Yusuf Salim

Study Type : Human Study

Additional Links

Diseases : [Alcohol Toxicity : CK\(205\) : AC\(81\)](#), [Diabetes: Cardiovascular Illness : CK\(501\) : AC\(102\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Myocardial Infarction : CK\(1773\) : AC\(112\)](#), [Obesity : CK\(963\) : AC\(251\)](#), [Smoking : CK\(403\) : AC\(67\)](#)

Therapeutic Actions : [Exercise : CK\(281\) : AC\(57\)](#)

Additional Keywords : [Risk Reduction : CK\(1065\) : AC\(195\)](#)

Dietary Modification: Mediterranean Diet

[A Mediterranean diet in adults with mild abdominal obesity improves serum lipids and insulin sensitivity.](#) - GMI Summary

Pubmed Data : Nutr Metab Cardiovasc Dis. 2009 Aug 17. Epub 2009 Aug 17. PMID: [19692213](#)

Article Published Date : Aug 17, 2009

Authors : M B Bos, J H M de Vries, E J M Feskens, S J van Dijk, D W M Hoelen, E Siebelink, R Heijligenberg, L C P G M de Groot

Study Type : Human Study

Additional Links

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Therapeutic Actions : [Dietary Modification: Mediterranean Diet : CK\(319\) : AC\(58\)](#)

[A Mediterranean-style diet achieved by close dietetic supervision improves endothelial function in subjects with abdominal obesity.](#) - GMI Summary

Pubmed Data : Am J Clin Nutr. 2009 Aug;90(2):263-8. Epub 2009 Jun 10. PMID: [19515732](#)

Article Published Date : Aug 01, 2009

Authors : Loukianos S Rallidis, John Lekakis, Anastasia Kolomvotsou, Antonios Zampelas, Georgia Vamvakou, Stamatias Efstathiou, George Dimitriadis, Sotirios A Raptis, Dimitrios T Kremastinos

Study Type : Human Study

Additional Links

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Therapeutic Actions : [Dietary Modification: Mediterranean Diet : CK\(319\) : AC\(58\)](#)

[A modified Mediterranean-type diet rich in omega-3 fatty acids efficiently potentiated the cholesterol-lowering effect of simvastatin, counteracted the fasting insulin-elevating effect of simvastatin, and, unlike simvastatin, did not decrease serum levels](#) - GMI Summary

Pubmed Data : JAMA. 2002 Feb 6;287(5):598-605. PMID: [11829698](#)

Article Published Date : Feb 06, 2002

Authors : Antti Jula, Jukka Marniemi, Risto Huupponen, Arja Virtanen, Merja Rastas, Tapani Rönnemaa

Study Type : Human Study

Additional Links

Substances : [Omega-3 Fatty Acids : CK\(1938\) : AC\(318\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)
Therapeutic Actions : [Dietary Modification: Mediterranean Diet : CK\(319\) : AC\(58\)](#)
Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#)
Additional Keywords : [Therapeutic Action Synergy with Drugs : CK\(15\) : AC\(2\)](#)

[A MUFA-rich diet improves postprandial glucose, lipid and GLP-1 responses in insulin-resistant subjects. - GMI Summary](#)

Pubmed Data : J Am Coll Nutr. 2007 Oct;26(5):434-44. PMID: [17914131](#)

Article Published Date : Oct 01, 2007

Authors : Juan A Paniagua, Angel Gallego de la Sacristana, Esther Sánchez, Inmaculada Romero, Antonio Vidal-Puig, Francisco J Berral, Antonio Escribano, Maria José Moyano, Pablo Pérez-Martinez, José López-Miranda, Francisco Pérez-Jiménez

Study Type : Human Study

Additional Links

Substances : [Monounsaturated fatty acids : CK\(35\) : AC\(5\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Therapeutic Actions : [Dietary Modification: Mediterranean Diet : CK\(319\) : AC\(58\)](#)

Pharmacological Actions : [Glucagon Like peptide 1 \(GLP-1\) Up-regulation : CK\(129\) : AC\(30\)](#), [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#), [Insulin Down-Regulation : CK\(12\) : AC\(2\)](#)

[Adherence to a modified Mediterranean diet, high in foods of vegetable origin and unsaturated fatty acids, is associated with lower abdominal adiposity. - GMI Summary](#)

Pubmed Data : J Nutr. 2009 Sep;139(9):1728-37. Epub 2009 Jul 1. PMID: [19571036](#)

Article Published Date : Sep 01, 2009

Authors : Dora Romaguera, Teresa Norat, Traci Mouw, Anne M May, Christina Bamia, Nadia Slimani, Noemie Travier, Herve Besson, Jian'an Luan, Nick Wareham, Sabina Rinaldi, Elisabeth Couto, Françoise Clavel-Chapelon, Marie-Christine Boutron-Ruault, Vanessa Cottet, Domenico Palli, Claudia Agnoli, Salvatore Panico, Rosario Tumino, Paolo Vineis, Antonio Agudo, Laudina Rodriguez, Maria Jose Sanchez, Pilar Amiano, Aurelio Barricarte, Jose Maria Huerta, Timothy J Key, Elisabeth A Spencer, H Bas Bueno-de-Mesquita, Frederike L Büchner, Philippos Orfanos, Androniki Naska, Antonia Trichopoulou, Sabine Rohrmann, Rudolf Kaaks, Manuela Bergmann, Heiner Boeing, Ingegerd Johansson, Veronica Hellstrom, Jonas Manjer, Elisabet Wirfält, Marianne Uhre Jacobsen, Kim Overvad, Anne Tjønneland, Jytte Halkjaer, Eiliv Lund, Toni Braaten, Dragun Engeset, Andreani Odysseos, Elio Riboli, Petra H M Peeters

Study Type : Human Study

Additional Links

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#)

Therapeutic Actions : [Dietary Modification: Mediterranean Diet : CK\(319\) : AC\(58\)](#)

[An onion-olive-oil combination reduces arterial blood pressure, plasma viscosity and hematocrit, indicating the cardiovascular benefits of a Mediterranean diet. - GMI Summary](#)

Pubmed Data : Arzneimittelforschung. 2000 Sep;50(9):795-801. PMID: [11050695](#)

Article Published Date : Sep 01, 2000

Authors : U Kalus, G Pindur, F Jung, B Mayer, H Radtke, K Bachmann, C Mrowietz, J Koscielny, H Kiesewetter

Study Type : Human Study

Additional Links

Substances : [Olive : CK\(314\) : AC\(93\)](#), [Onion : CK\(108\) : AC\(40\)](#)

Diseases : [Blood Coagulation Disorders : CK\(36\) : AC\(11\)](#), [Clotting : CK\(144\) : AC\(35\)](#), [Hypertension : CK\(1319\) :](#)

[AC\(254\)](#)

Therapeutic Actions : [Dietary Modification: Mediterranean Diet : CK\(319\) : AC\(58\)](#)

[Mediterranean diets are associated with a lower incidence of metabolic syndrome one year following renal transplantation.](#) - GMI Summary

Pubmed Data : Kidney Int. 2009 Dec;76(11):1199-206. Epub 2009 Sep 9. PMID: [19741589](#)

Article Published Date : Dec 01, 2009

Authors : Mohsen Nafar, Nazanin Noori, Sara Jalali-Farahani, Farhad Hosseinpanah, Fatemeh Poorrezagholi, Pedram Ahmadpoor, Fariba Samadian, Ahmad Firouzan, Behzad Einollahi

Study Type : Human Study

Additional Links

Diseases : [Kidney Transplant : CK\(37\) : AC\(7\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Therapeutic Actions : [Dietary Modification: Mediterranean Diet : CK\(319\) : AC\(58\)](#)

Additional Keywords : [Risk Reduction : CK\(1065\) : AC\(195\)](#)

[Olive oil consumption has an ameliorative effect in non-alcoholic fatty liver disease.](#) - GMI Summary

Pubmed Data : World J Gastroenterol. 2009 Apr 21;15(15):1809-15. PMID: [19370776](#)

Article Published Date : Apr 21, 2009

Authors : Nimer Assy, Faris Nassar, Gattas Nasser, Maria Grosovski

Study Type : Human Study

Additional Links

Substances : [Olive Oil : CK\(55\) : AC\(12\)](#)

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Therapeutic Actions : [Dietary Modification: Mediterranean Diet : CK\(319\) : AC\(58\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Glucagon Like peptide 1 \(GLP-1\) Up-regulation : CK\(129\) : AC\(30\)](#), [Glucose transporter-2 \(GLUT2\) expression up-regulation : CK\(10\) : AC\(1\)](#), [Insulin Sensitizers : CK\(87\) : AC\(16\)](#), [Interleukin-6 Downregulation : CK\(393\) : AC\(131\)](#), [NF-kappaB inhibitor : CK\(631\) : AC\(382\)](#)

[Olive oil consumption increases HDL-cholesterol levels, while decreasing LDL-cholesterol levels, LDL susceptibility to oxidation and lipid peroxidation.](#) - GMI Summary

Pubmed Data : Med Health R I. 2006 Mar;89(3):113. PMID: [16596937](#)

Article Published Date : Mar 01, 2006

Authors : Kathleen Cullinen

Study Type : Commentary

Additional Links

Substances : [Olive : CK\(314\) : AC\(93\)](#)

Diseases : [Arteriosclerosis : CK\(409\) : AC\(137\)](#), [Cholesterol: Oxidation : CK\(329\) : AC\(96\)](#), [HDL: Low : CK\(195\) : AC\(48\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Therapeutic Actions : [Dietary Modification: Mediterranean Diet : CK\(319\) : AC\(58\)](#)

[The Mediterranean-style diet may protect against metabolic syndrome in Americans.](#) - GMI Summary

Pubmed Data : Am J Clin Nutr. 2009 Dec;90(6):1608-14. Epub 2009 Oct 14. PMID: [19828705](#)

Article Published Date : Dec 01, 2009

Authors : Marcella E Rumawas, James B Meigs, Johanna T Dwyer, Nicola M McKeown, Paul F Jacques

Study Type : Human Study

Additional Links

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Therapeutic Actions : [Dietary Modification: Mediterranean Diet : CK\(319\) : AC\(58\)](#)

Additional Keywords : [Risk Reduction : CK\(1065\) : AC\(195\)](#)

Fermented Foods and Beverages

[A fermented milk containing whey protein concentrate has a positive effect on serum lipids and blood pressure in rats and healthy men. - GMI Summary](#)

Pubmed Data : J Dairy Sci. 2000 Feb;83(2):255-63. PMID: [10714858](#)

Article Published Date : Feb 01, 2000

Authors : M Kawase, H Hashimoto, M Hosoda, H Morita, A Hosono

Study Type : Human Study

Additional Links

Substances : [Fermented Foods and Beverages : CK\(528\) : AC\(127\)](#), [Whey : CK\(269\) : AC\(70\)](#)

Diseases : [Cholesterol: LDL/HDL ratio : CK\(287\) : AC\(52\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Triglycerides: Elevated : CK\(227\) : AC\(64\)](#)

Pharmacological Actions : [Hypolipidemic : CK\(282\) : AC\(75\)](#), [Hypotensive : CK\(239\) : AC\(45\)](#)

[A fermented whey product has therapeutic value in the treatment of metabolic syndrome. - GMI Summary](#)

Pubmed Data : J Med Food. 2010 Jun;13(3):509-19. PMID: [20406141](#)

Article Published Date : Jun 01, 2010

Authors : J Beaulieu, E Millette, E Trottier, L-P Précourt, C Dupont, P Lemieux

Study Type : Human Study

Additional Links

Substances : [Fermented Foods and Beverages : CK\(528\) : AC\(127\)](#), [Lactobacillus probiotics : CK\(904\) : AC\(143\)](#), [Whey : CK\(269\) : AC\(70\)](#)

Diseases : [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Pharmacological Actions : [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

[A Korean fermented red pepper plus soybean paste, improves glucose homeostasis by reducing insulin resistance in 90% pancreatectomized diabetic rats. - GMI Summary](#)

Pubmed Data : Nutrition. 2009 Jul-Aug;25(7-8):790-9. Epub 2009 Feb 28. PMID: [19251395](#)

Article Published Date : Jul 01, 2009

Authors : Dae Young Kwon, Sang Mee Hong, Il Sung Ahn, Young Suk Kim, Dong Wha Shin, Sunmin Park

Study Type : Animal Study

Additional Links

Substances : [Fermented Foods and Beverages : CK\(528\) : AC\(127\)](#), [Soy : CK\(1229\) : AC\(332\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#)

[Yogurt containing two probiotic bacteria strains, L. acidophilus and B. lactis, had a cholesterol-lowering effect in hypercholesterolemic subjects. - GMI Summary](#)

Pubmed Data : Ann Nutr Metab. 2009;54(1):22-7. Epub 2009 Feb 20. PMID: [19229114](#)

Article Published Date : Jan 01, 2009

Authors : Asal Ataie-Jafari, Bagher Larijani, Hamid Alavi Majd, Farideh Tahbaz

Study Type : Human Study

Additional Links

Substances : [Bifidobacterium Lactis : CK\(35\) : AC\(7\)](#), [Fermented Foods and Beverages : CK\(528\) : AC\(127\)](#), [Lactobacillus Acidophilus : CK\(143\) : AC\(23\)](#), [Yoghurt : CK\(65\) : AC\(15\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Anticholesteremic Agents : CK\(180\) : AC\(38\)](#)

Fiber

[A diet high in plant sterols, vegetable proteins, viscous fibers and almonds is as effective as the statin drug lovastatin in managing hypercholesterolemia. - GMI Summary](#)

Pubmed Data : JAMA. 2003 Jul 23;290(4):502-10. PMID: [12876093](#)

Article Published Date : Jul 23, 2003

Authors : David J A Jenkins, Cyril W C Kendall, Augustine Marchie, Dorothea A Faulkner, Julia M W Wong, Russell de Souza, Azadeh Emam, Tina L Parker, Edward Vidgen, Karen G Lapsley, Elke A Trautwein, Robert G Josse, Lawrence A Leiter, Philip W Connelly

Study Type : Human Study

Additional Links

Substances : [Almond : CK\(48\) : AC\(11\)](#), [Fiber : CK\(381\) : AC\(71\)](#), [Vegetables: All : CK\(373\) : AC\(69\)](#)

Diseases : [C-Reactive Protein : CK\(425\) : AC\(72\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hyperlipidemia : CK\(403\) : AC\(105\)](#)

Pharmacological Actions : [Anticholesteremic Agents : CK\(180\) : AC\(38\)](#)

Additional Keywords : [Natural Substances Versus Drugs : CK\(832\) : AC\(164\)](#)

[A diet rich in fiber may have a moderate blood pressure-lowering effect - GMI Summary](#)

Pubmed Data : J Hypertens. 2004 Jan;22(1):73-80. PMID: [15106797](#)

Article Published Date : Jan 01, 2004

Authors : Jiang He, Richard H Streiffer, Paul Muntner, Marie A Krousel-Wood, Paul K Whelton

Study Type : Human Study

Additional Links

Substances : [Fiber : CK\(381\) : AC\(71\)](#), [Oat Bran : CK\(26\) : AC\(8\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

[Concentrated oat beta-glucan, a fermentable fiber, lowers serum cholesterol in hypercholesterolemic adults. - GMI Summary](#)

Pubmed Data : Nutr J. 2007;6:6. Epub 2007 Mar 26. PMID: [17386092](#)

Article Published Date : Jan 01, 2007

Authors : Katie M Queenan, Maria L Stewart, Kristen N Smith, William Thomas, R Gary Fulcher, Joanne L Slavin

Study Type : Human Study

Additional Links

Substances : [Beta-glucan : CK\(179\) : AC\(41\)](#), [Fiber : CK\(381\) : AC\(71\)](#), [Oats : CK\(168\) : AC\(45\)](#)

Diseases : [Cholesterol: LDL/HDL ratio : CK\(287\) : AC\(52\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hypercholesterolemia : CK\(692\) : AC\(159\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Hypolipidemic : CK\(282\) : AC\(75\)](#)

[Cookies enriched with psyllium or oat bran lower plasma LDL cholesterol in normal and hypercholesterolemic men. - GMI Summary](#)

Pubmed Data : J Pharmacol Sci. 2007 Aug;104(4):355-65. Epub 2007 Aug 10. PMID: [9853540](#)

Article Published Date : Aug 01, 2007

Authors : A L Romero, J E Romero, S Galaviz, M L Fernandez

Study Type : Human Study

Additional Links

Substances : [Fiber : CK\(381\) : AC\(71\)](#), [Oats : CK\(168\) : AC\(45\)](#), [Psyllium : CK\(97\) : AC\(18\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Hypolipidemic : CK\(282\) : AC\(75\)](#)

[Eggplant phenolics may inhibit key enzymes associated with the pathogenesis of type 2 diabetes and hypertension. - GMI Summary](#)

Pubmed Data : Bioresour Technol. 2008 May;99(8):2981-8. Epub 2007 Aug 13. PMID: [17706416](#)

Article Published Date : May 01, 2008

Authors : Y-I Kwon, E Apostolidis, K Shetty

Study Type : Commentary

Additional Links

Substances : [Eggplant : CK\(20\) : AC\(10\)](#), [Fiber : CK\(381\) : AC\(71\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Alpha-glucosidase inhibitor : CK\(22\) : AC\(11\)](#), [Angiotensin-Converting Enzyme Inhibitors : CK\(23\) : AC\(12\)](#), [Enzyme Inhibitors : CK\(340\) : AC\(201\)](#)

[Glucose tolerance and GLP-1 secretion increases in rats fed a high protein and fiber diet. - GMI Summary](#)

Pubmed Data : Obesity (Silver Spring). 2008 Jan;16(1):40-6. PMID: [18223610](#)

Article Published Date : Jan 01, 2008

Authors : Raylene A Reimer, James C Russell

Study Type : Animal Study

Additional Links

Substances : [Fiber : CK\(381\) : AC\(71\)](#), [Inulin : CK\(3\) : AC\(2\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Therapeutic Actions : [Dietary Modification: High Protein : CK\(2\) : AC\(1\)](#)

Pharmacological Actions : [Glucagon Like peptide 1 \(GLP-1\) Up-regulation : CK\(129\) : AC\(30\)](#)

[Increased fiber intakes prevent against metabolic syndrome and cardiovascular disease after kidney transplantation. - GMI Summary](#)

Pubmed Data : J Ren Nutr. 2009 Sep 11. Epub 2009 Sep 11. PMID: [19748799](#)

Article Published Date : Sep 11, 2009

Authors : Nazanin Noori, Mohsen Nafar, Fatemeh Poorrezaghali, Pedram Ahmadpoor, Fariba Samadian, Ahmad Firouzan, Behzad Einollahi

Study Type : Human Study

Additional Links

Substances : [Fiber : CK\(381\) : AC\(71\)](#)

Diseases : [Kidney Transplant : CK\(37\) : AC\(7\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

[Oats are unique among the cereal grains in respect to its many therapeutic properties.](#) - GMI Summary

Pubmed Data : Eur J Nutr. 2008 Mar;47(2):68-79. Epub 2008 Feb 26. PMID: [18301937](#)

Article Published Date : Mar 01, 2008

Authors : Masood Sadiq Butt, Muhammad Tahir-Nadeem, Muhammad Kashif Iqbal Khan, Rabia Shabir, Mehmood S Butt

Study Type : Review

Additional Links

Substances : [Beta-glucan : CK\(179\) : AC\(41\)](#), [Fiber : CK\(381\) : AC\(71\)](#), [Oats : CK\(168\) : AC\(45\)](#)

Diseases : [Celiac Disease : CK\(860\) : AC\(134\)](#), [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

[Soluble fiber intake and increased physical activity were related to decreased abdominal fat accumulationaccumulation over 5 years.](#) - GMI Summary

Pubmed Data : Obesity (Silver Spring). 2011 Jun 16. Epub 2011 Jun 16. PMID: [21681224](#)

Article Published Date : Jun 16, 2011

Authors : Kristen G Hairston, Mara Z Vitolins, Jill M Norris, Andrea M Anderson, Anthony J Hanley, Lynne E Wagenknecht

Study Type : Human Study

Additional Links

Substances : [Fiber : CK\(381\) : AC\(71\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#)

Therapeutic Actions : [Exercise : CK\(281\) : AC\(57\)](#)

[Steam cooking significantly improves in vitro bile acid binding of collard greens, kale, mustard greens, broccoli, green bell pepper, and cabbage.](#) - GMI Summary

Pubmed Data : Nutr Res. 2008 Jun;28(6):351-7. PMID: [19083431](#)

Article Published Date : Jun 01, 2008

Authors : Talwinder Singh Kahlon, Mei-Chen M Chiu, Mary H Chapman

Study Type : In Vitro Study

Additional Links

Substances : [Fiber : CK\(381\) : AC\(71\)](#), [Green Leafy Vegetables : CK\(158\) : AC\(42\)](#)

Diseases : [Cholestasis : CK\(95\) : AC\(21\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Anticholesteremic Agents : CK\(180\) : AC\(38\)](#)

Additional Keywords : [Raw versus Cooked : CK\(25\) : AC\(9\)](#)

[The LDL-cholesterol lowering effect of oat beta-glucan depends on molecular weight \(size\).](#) - GMI Summary

Pubmed Data : Am J Clin Nutr. 2010 Oct;92(4):723-32. Epub 2010 Jul 21. PMID: [20660224](#)

Article Published Date : Oct 01, 2010

Authors : Thomas M S Wolever, Susan M Tosh, Alison L Gibbs, Jennie Brand-Miller, Alison M Duncan, Valerie Hart, Benoît Lamarche, Barbara A Thomson, Ruedi Duss, Peter J Wood

Study Type : Human Study

Additional Links

Substances : [Beta-glucan : CK\(179\) : AC\(41\)](#), [Fiber : CK\(381\) : AC\(71\)](#), [Oats : CK\(168\) : AC\(45\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Anticholesteremic Agents : CK\(180\) : AC\(38\)](#)

[Wheat fiber supplementation increases GLP-1 secretion and improves colonic fermentation by-products in hyperinsulinemic patients.](#) - GMI Summary

Pubmed Data : Br J Nutr. 2010 Jan;103(1):82-90. Epub 2009 Aug 7. PMID: [19664300](#)

Article Published Date : Jan 01, 2010

Authors : Kristin R Freeland, Charlotte Wilson, Thomas M S Wolever

Study Type : Human Study

Additional Links

Substances : [Fiber : CK\(381\) : AC\(71\)](#), [Wheat Bran : CK\(40\) : AC\(9\)](#)

Diseases : [Hyperinsulinism : CK\(123\) : AC\(35\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Glucagon Like peptide 1 \(GLP-1\) Up-regulation : CK\(129\) : AC\(30\)](#)

Resveratrol

[Acute resveratrol supplementation improves flow-mediated dilatation in overweight/obese individuals with mildly elevated blood pressure.](#) - GMI Summary

Pubmed Data : Nutr Metab Cardiovasc Dis. 2010 Jul 29. Epub 2010 Jul 29. PMID: [20674311](#)

Article Published Date : Jul 29, 2010

Authors : R H X Wong, P R C Howe, J D Buckley, A M Coates, I Kunz, N M Berry

Study Type : Human Study

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#), [Obesity : CK\(963\) : AC\(251\)](#), [Overweight : CK\(367\) : AC\(82\)](#)

Pharmacological Actions : [Hypotensive : CK\(239\) : AC\(45\)](#), [Vasodilator Agents : CK\(223\) : AC\(50\)](#)

[Chronic administration of resveratrol prevents biochemical cardiovascular changes in fructose-fed rats.](#) - GMI Summary

Pubmed Data : Am J Hypertens. 2005 Jun;18(6):864-70. PMID: [15925749](#)

Article Published Date : Jun 01, 2005

Authors : Roberto Miatello, Marcela Vázquez, Nicolás Renna, Montserrat Cruzado, Amira Ponce Zumino, Norma Risler

Study Type : Animal Study

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [Arteriosclerosis : CK\(409\) : AC\(137\)](#), [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#)

Additional Keywords : [Stilbenes : CK\(424\) : AC\(245\)](#)

[High-dose resveratrol has anti-angiogenic effects in a swine model of metabolic syndrome.](#) - GMI Summary

Pubmed Data : Surgery. 2010 Aug;148(2):453-62. Epub 2010 Jun 8. PMID: [20570307](#)

Article Published Date : Aug 01, 2010

Authors : Michael P Robich, Louis M Chu, Mirnal Chaudray, Reza Nezafat, Yuchi Han, Richard T Clements, Roger J Laham, Warren J Manning, Michael A Coady, Frank W Sellke

Study Type : Animal Study

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Myocardial Ischemia : CK\(83\) : AC\(36\)](#)

Pharmacological Actions : [Anti-Angiogenic : CK\(143\) : AC\(97\)](#)

Additional Keywords : [Stilbenes : CK\(424\) : AC\(245\)](#)

[Polyphenols may have therapeutic value in a variety of diseases through modulating AMP-activated protein kinase which reduce fatty acid and cholesterol synthesis and gluconeogenesis.](#) - GMI Summary

Pubmed Data : N Biotechnol.2009 Oct 1;26(1-2):17-22. Epub 2009 Apr 2. PMID: [19818314](#)

Article Published Date : Oct 01, 2009

Authors : Jin-Taek Hwang, Dae Young Kwon, Suk Hoo Yoon

Study Type : Commentary

Additional Links

Substances : [Berberine : CK\(132\) : AC\(67\)](#), [EGCG \(Epigallocatechin gallate\) : CK\(183\) : AC\(114\)](#), [Polyphenols : CK\(382\) : AC\(170\)](#), [Quercetin : CK\(265\) : AC\(134\)](#), [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [Diabetes Mellitus: Type 1 : CK\(743\) : AC\(207\)](#), [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Pharmacological Actions : [AMP-activated protein kinase modulation : CK\(2\) : AC\(2\)](#), [Gluconeogenesis Inhibitor : CK\(26\) : AC\(14\)](#)

[Resveratrol has blood pressure lowering properties.](#) - GMI Summary

Pubmed Data : Cardiovasc Res. 2010 Dec 17. Epub 2010 Dec 17. PMID: [21071431](#)

Article Published Date : Dec 17, 2010

Authors : Cornelia E Schreiner, Mario Kumerz, Julia Gesslbauer, Daniel Schachner, Helge Joa, Thomas Erker, Atanas G Atanasov, Elke H Heiss, Verena M Dirsch

Study Type : In Vitro Study

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Angiotensin-Converting Enzyme Inhibitors : CK\(23\) : AC\(12\)](#), [Hypotensive : CK\(239\) : AC\(45\)](#), [Vascular smooth muscle cell \(VSMC\) inhibitor : CK\(5\) : AC\(5\)](#)

[Resveratrol improves cardiovascular function in salt-induced hypertensive rats.](#) - GMI Summary

Pubmed Data : Curr Pharm Biotechnol. 2011 Mar 1;12(3):429-36. PMID: [20874677](#)

Article Published Date : Mar 01, 2011

Authors : Vincent Chan, Andrew Fenning, Abishek Iyer, Andrew Hoey, Lindsay Brown

Study Type : Animal Study

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Hypotensive : CK\(239\) : AC\(45\)](#)

[Resveratrol improves insulin resistance hyperglycemia and hepatosteatosis but not hypertriglyceridemia, inflammation, and life span in a mouse model for werner syndrome.](#) -

GMI Summary

Pubmed Data : J Gerontol A Biol Sci Med Sci. 2011 Mar;66(3):264-78. Epub 2010 Oct 25. PMID: [20974729](#)

Article Published Date : Mar 01, 2011

Authors : Adam Labbé, Chantal Garand, Victoria C Cogger, Eric R Paquet, Myriam Desbiens, David G Le Couteur, Michel Lebel

Study Type : Animal Study

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [Aging : CK\(1231\) : AC\(350\)](#), [Fatty Liver : CK\(449\) : AC\(109\)](#), [Inflammation : CK\(829\) : AC\(330\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Triglycerides: Elevated : CK\(227\) : AC\(64\)](#), [Werner Syndrome : CK\(3\) : AC\(2\)](#)

Pharmacological Actions : [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#), [Hypolipidemic : CK\(282\) : AC\(75\)](#)

[Resveratrol improves insulin sensitivity, reduces oxidative stress and activates the Akt pathway in type 2 diabetic patients.](#) - GMI Summary

Pubmed Data : Br J Nutr. 2011 Mar 9:1-7. Epub 2011 Mar 9. PMID: [21385509](#)

Article Published Date : Mar 09, 2011

Authors : Pál Brasnyó, Gergő A Molnár, Márton Mohás, Lajos Markó, Boglárka Laczy, Judit Cseh, Esztella Mikolás, István András Szijártó, Akos Mérei, Richárd Halmai, László G Mészáros, Balázs Sümegi, István Wittmann

Study Type : Human Study

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [Diabetes: Oxidative Stress : CK\(57\) : AC\(17\)](#), [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Insulin Receptor Modulator : CK\(12\) : AC\(2\)](#)

[Resveratrol improves myocardial perfusion in a swine model of hypercholesterolemia and chronic myocardial ischemia.](#) - GMI Summary

Pubmed Data : Circulation. 2010 Sep 14;122(11 Suppl):S142-9. PMID: [20837905](#)

Article Published Date : Sep 14, 2010

Authors : Michael P Robich, Robert M Osipov, Reza Nezafat, Jun Feng, Richard T Clements, Cesario Bianchi, Munir Boodhwani, Michael A Coady, Roger J Laham, Frank W Sellke

Study Type : Animal Study

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [Coronary Artery Disease : CK\(912\) : AC\(131\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Myocardial Ischemia : CK\(83\) : AC\(36\)](#)

Pharmacological Actions : [Vascular Endothelial Growth Factor A Inhibitor : CK\(98\) : AC\(55\)](#)

Additional Keywords : [Stilbenes : CK\(424\) : AC\(245\)](#)

[Resveratrol may be beneficial against cardiac hypertrophy associated with hypertension and aortic valve stenosis.](#) - GMI Summary

Pubmed Data : Am J Physiol Heart Circ Physiol. 2007 May;292(5):H2138-43. PMID: [17488730](#)

Article Published Date : May 01, 2007

Authors : Danijel Juric, Peter Wojciechowski, Dipak K Das, Thomas Netticadan

Study Type : Animal Study

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [Aortic Stenosis : CK\(41\) : AC\(11\)](#), [Cardiac Hypertrophy : CK\(48\) : AC\(22\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

[Resveratrol may have a beneficial effect on Ang II-induced cardiac remodeling.](#) - GMI Summary

Pubmed Data : Blood Press. 2010 Jun;19(3):196-205. PMID: [20429690](#)

Article Published Date : Jun 01, 2010

Authors : Agnieszka Biala, Eveliina Tauriainen, Antti Siltanen, Jin Shi, Saara Merasto, Marjut Louhelainen, Essi Martonen, Piet Finckenberg, Dominik N Muller, Eero Mervaala

Study Type : Animal Study

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [Cardiomegaly : CK\(13\) : AC\(7\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Mitochondrial Dysfunction : CK\(92\) : AC\(33\)](#)

Additional Keywords : [Mitochondrial Biogenesis : CK\(6\) : AC\(3\)](#), [Stilbenes : CK\(424\) : AC\(245\)](#)

[Resveratrol may have a therapeutic role in the prevention and treatment of metabolic syndrome.](#) - GMI Summary

Pubmed Data : Biochem Pharmacol. 2009 Mar 15;77(6):1053-63. Epub 2008 Dec 3. PMID: [19100718](#)

Article Published Date : Mar 15, 2009

Authors : Leonor Rivera, Rocío Morón, Antonio Zarzuelo, Milagros Galisteo

Study Type : Animal Study

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

[Resveratrol may have therapeutic value in the treatment of metabolic syndrome.](#) - GMI Summary

Pubmed Data : Curr Opin Clin Nutr Metab Care. 2010 Nov;13(6):729-36. PMID: [20823772](#)

Article Published Date : Nov 01, 2010

Authors : Jean-Louis Beaudeau, Valérie Nivet-Antoine, Philippe Giral

Study Type : Review

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#), [Stilbenes : CK\(424\) : AC\(245\)](#)

[Resveratrol may positively modulate insulin secretion and response in beta cells.](#) - GMI Summary

Pubmed Data : J Biol Chem. 2011 Feb 25;286(8):6049-60. Epub 2010 Dec 16. PMID: [21163946](#)

Article Published Date : Feb 25, 2011

Authors : Laurène Vetterli, Thierry Brun, Laurianne Giovannoni, Domenico Bosco, Pierre Maechler

Study Type : In Vitro Study

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [Blood Sugar Problems : CK\(2962\) : AC\(628\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Insulin-releasing : CK\(32\) : AC\(16\)](#)

[Resveratrol may prevent atherosclerosis in diabetic patients. - GMI Summary](#)

Pubmed Data : Endocrine. 2010 Apr;37(2):365-72. Epub 2010 Mar 13. PMID: [20960276](#)

Article Published Date : Apr 01, 2010

Authors : Juhong Yang, Nan Wang, Jingyan Li, Jiaojiao Zhang, Ping Feng

Study Type : In Vitro Study

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [Atherosclerosis : CK\(461\) : AC\(71\)](#), [Diabetes: Cardiovascular Illness : CK\(501\) : AC\(102\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

Additional Keywords : [Stilbenes : CK\(424\) : AC\(245\)](#)

[Resveratrol modulates adipokine expression and improves insulin sensitivity in adipocytes. - GMI Summary](#)

Pubmed Data : Biochimie. 2010 Jul;92(7):789-96. Epub 2010 Feb 25. PMID: [20188786](#)

Article Published Date : Jul 01, 2010

Authors : Liu Kang, Wang Heng, An Yuan, Liu Baolin, Huang Fang

Study Type : In Vitro Study

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#), [Stilbenes : CK\(123\) : AC\(88\)](#)

Diseases : [Inflammation : CK\(829\) : AC\(330\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Lipopolysaccharide-Induced Toxicity : CK\(235\) : AC\(122\)](#)

Pharmacological Actions : [Anti-Inflammatory Agents : CK\(999\) : AC\(390\)](#), [Insulin Sensitizers : CK\(87\) : AC\(16\)](#), [Interleukin-6 Downregulation : CK\(393\) : AC\(131\)](#), [NF-kappaB inhibitor : CK\(631\) : AC\(382\)](#), [Tumor Necrosis Factor \(TNF\) Alpha Inhibitor : CK\(858\) : AC\(330\)](#)

[Resveratrol prevents monocrotaline-induced pulmonary hypertension in rats. - GMI Summary](#)

Pubmed Data : Hypertension. 2009 Sep;54(3):668-75. Epub 2009 Jul 13. PMID: [19597040](#)

Article Published Date : Sep 01, 2009

Authors : Anna Csiszar, Nazar Labinsky, Susan Olson, John T Pinto, Sachin Gupte, Joseph M Wu, Furong Hu, Praveen Ballabh, Andrej Podlutzky, Gyorgy Losonczy, Rafael de Cabo, Rajamma Mathew, Michael S Wolin, Zoltan Ungvari

Study Type : Animal Study

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Hypertension: Pulmonary : CK\(108\) : AC\(34\)](#), [Oxidative Stress : CK\(1631\) : AC\(660\)](#)

Pharmacological Actions : [Antiproliferative : CK\(956\) : AC\(676\)](#), [Interleukin-6 Downregulation : CK\(393\) : AC\(131\)](#), [Vasodilator Agents : CK\(223\) : AC\(50\)](#)

Additional Keywords : [Stilbenes : CK\(424\) : AC\(245\)](#)

[Resveratrol prevents the development of pathological cardiac hypertrophy and contractile dysfunction in the spontaneously hypertensive rats without lowering blood pressure. - GMI](#)

Summary

Pubmed Data : Am J Hypertens. 2010 Feb;23(2):192-6. Epub 2009 Nov 26. PMID: [19942861](#)

Article Published Date : Feb 01, 2010

Authors : Sijo J Thandapilly, Peter Wojciechowski, John Behbahani, Xavier L Louis, Liping Yu, Danijel Juric, Melanie A Kopilas, Hope D Anderson, Thomas Netticadan

Study Type : Animal Study

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#), [Stilbenes : CK\(123\) : AC\(88\)](#)

Diseases : [Cardiac Hypertrophy : CK\(48\) : AC\(22\)](#), [Cardiomegaly : CK\(13\) : AC\(7\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Lipid Peroxidation : CK\(247\) : AC\(103\)](#), [Oxidative Stress : CK\(1631\) : AC\(660\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Cardioprotective : CK\(540\) : AC\(179\)](#)

[Resveratrol protect against hypercholesterolemia-induced erectile dysfunction and endothelial dysfunction.](#) - GMI Summary

Pubmed Data : Indian J Exp Biol. 2008 Aug;46(8):583-90. PMID: [20596084](#)

Article Published Date : Aug 01, 2008

Authors : B C Soner, N Murat, O Demir, H Guven, A Esen, S Gidener

Study Type : In Vitro Study

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Erectile Dysfunction : CK\(173\) : AC\(35\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Vasoprotective : CK\(16\) : AC\(9\)](#)

Additional Keywords : [Stilbenes : CK\(424\) : AC\(245\)](#)

[Resveratrol reduces blood cholesterol and ischemic injury in hypercholesteromic rabbits.](#) - GMI Summary

Pubmed Data : Mol Cell Biochem. 2011 Feb;348(1-2):199-203. Epub 2010 Nov 4. PMID: [21052791](#)

Article Published Date : Feb 01, 2011

Authors : Bela Juhasz, Bela Juhaz, Dipak K Das, Attila Kertesz, Akos Juhasz, Rudolf Gesztelyi, Balazs Varga

Study Type : Animal Study

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#), [Ischemia: Myocardial : CK\(25\) : AC\(13\)](#)

Pharmacological Actions : [Anticholesteremic Agents : CK\(180\) : AC\(38\)](#), [Cardioprotective : CK\(540\) : AC\(179\)](#)

[Resveratrol reduces lipid peroxidation and increases sirtuin 1 expression in adult animals programmed by neonatal protein restriction.](#) - GMI Summary

Pubmed Data : J Endocrinol. 2010 Dec;207(3):319-28. Epub 2010 Sep 24. PMID: [20870710](#)

Article Published Date : Dec 01, 2010

Authors : Juliana Gastão Franco, Egberto Gaspar de Moura, Josely Correa Koury, Paula Affonso Trotta, Aline Cordeiro, Luana Lopes Souza, Norma Aparecida dos Santos Almeida, Natália da Silva Lima, Carmen Cabanelas Pazos-Moura, Patrícia Cristina Lisboa, Magna Cottini Fonseca Passos

Study Type : Animal Study

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Lipid Peroxidation : CK\(247\) : AC\(103\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#)

Additional Keywords : [Stilbenes : CK\(424\) : AC\(245\)](#)

[Resveratrol reduces remodeling associated with hypertension.](#) - GMI Summary

Pubmed Data : Am J Hypertens. 2010 Dec;23(12):1273-8. Epub 2010 Jul 29. PMID: [20671721](#)

Article Published Date : Dec 01, 2010

Authors : John Behbahani, Sijo J Thandapilly, Xavier L Louis, Yingsu Huang, Zongjun Shao, Melanie A Kopilas, Peter Wojciechowski, Thomas Netticadan, Hope D Anderson

Study Type : Animal Study

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [Aging : CK\(1231\) : AC\(350\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Cardioprotective : CK\(540\) : AC\(179\)](#), [Hypotensive : CK\(239\) : AC\(45\)](#)

Additional Keywords : [Stilbenes : CK\(424\) : AC\(245\)](#)

[Resveratrol, in vitro and at low concentration, modulates genes that are related to lipid metabolism, possibly preventing metabolic disease in human visceral adipose tissue \(VAT\).](#)

- GMI Summary

Pubmed Data : Obes Surg. 2011 Mar;21(3):356-61. PMID: [20872255](#)

Article Published Date : Mar 01, 2011

Authors : Cíntia dos Santos Costa, Francieli Rohden, Thais Ortiz Hammes, Rogério Margis, Josiane Woutheres Bortolotto, Alexandre Vontobel Padoin, Cláudio Cora Mottin, Regina Maria Guaragna

Study Type : In Vitro Study

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Metabolic Diseases : CK\(7\) : AC\(3\)](#), [Obesity : CK\(963\) : AC\(251\)](#), [Weight Problems : CK\(1552\) : AC\(310\)](#)

[Review: resveratrol may improve insulin action and aging.](#) - GMI Summary

Pubmed Data : Curr Aging Sci. 2008 Dec;1(3):145-51. PMID: [20021385](#)

Article Published Date : Dec 01, 2008

Authors : Sara Fröjdö, Christine Durand, Luciano Pirola

Study Type : Review

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#), [Stilbenes : CK\(123\) : AC\(88\)](#)

Diseases : [Aging : CK\(1231\) : AC\(350\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Omega-3 Fatty Acids

[A flax and pumpkin seed mixture has anti-atherogenic and hepatoprotective effects.](#) - GMI Summary

Pubmed Data : Food Chem Toxicol. 2008 Dec;46(12):3714-20. Epub 2008 Oct 1. PMID: [18938206](#)

Article Published Date : Dec 01, 2008

Authors : M Makni, H Fetoui, N K Gargouri, El M Garoui, H Jaber, J Makni, T Boudawara, N Zeghal

Study Type : Animal Study

Additional Links

Substances : [Flaxseed : CK\(194\) : AC\(54\)](#), [Omega-3 Fatty Acids : CK\(1938\) : AC\(318\)](#), [Pumpkin Seed Oil/Meal : CK\(47\) : AC\(12\)](#)

Diseases : [Arteriosclerosis : CK\(409\) : AC\(137\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Hepatoprotective : CK\(580\) : AC\(245\)](#)

[A modified Mediterranean-type diet rich in omega-3 fatty acids efficiently potentiated the cholesterol-lowering effect of simvastatin, counteracted the fasting insulin-elevating effect of simvastatin, and, unlike simvastatin, did not decrease serum levels](#) - GMI Summary

Pubmed Data : JAMA. 2002 Feb 6;287(5):598-605. PMID: [11829698](#)

Article Published Date : Feb 06, 2002

Authors : Antti Jula, Jukka Marniemi, Risto Huupponen, Arja Virtanen, Merja Rastas, Tapani Rönnemaa

Study Type : Human Study

Additional Links

Substances : [Omega-3 Fatty Acids : CK\(1938\) : AC\(318\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Therapeutic Actions : [Dietary Modification: Mediterranean Diet : CK\(319\) : AC\(58\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#)

Additional Keywords : [Therapeutic Action Synergy with Drugs : CK\(15\) : AC\(2\)](#)

[An oily fish diet increases insulin sensitivity compared to a red meat diet in young iron-deficient women.](#) - GMI Summary

Pubmed Data : Br J Nutr. 2009 Aug;102(4):546-53. Epub 2009 Feb 12. PMID: [19210857](#)

Article Published Date : Aug 01, 2009

Authors : Santiago Navas-Carretero, Ana M Pérez-Granados, Stefanie Schoppen, M Pilar Vaquero

Study Type : Human Study

Additional Links

Substances : [Fish : CK\(200\) : AC\(19\)](#), [Omega-3 Fatty Acids : CK\(1938\) : AC\(318\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#)

[Fish oil, but not flaxseed oil, decreases inflammation and prevents pressure overload-induced cardiac dysfunction.](#) - GMI Summary

Pubmed Data : Immunopharmacol Immunotoxicol. 2009;31(2):209-13. PMID: [19015135](#)

Article Published Date : Jan 01, 2009

Authors : Monika K Duda, Karen M O'Shea, Anselm Tintinu, Wenhong Xu, Ramzi J Khairallah, Brian R Barrows, David J Chess, Agnes M Azimzadeh, William S Harris, Victor G Sharov, Hani N Sabbah, William C Stanley

Study Type : Animal Study

Additional Links

Substances : [Flaxseed : CK\(194\) : AC\(54\)](#), [Omega-3 Fatty Acids : CK\(1938\) : AC\(318\)](#)

Diseases : [Adiponectin: Low Levels : CK\(75\) : AC\(25\)](#), [Heart Failure : CK\(452\) : AC\(85\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Tumor Necrosis Factor \(TNF\) Alpha Inhibitor : CK\(858\) : AC\(330\)](#)

Additional Keywords : [Flax Versus Fish Oil : CK\(4\) : AC\(2\)](#)

[Niacin and omega-3 fatty acids may correct non-HDL lipoprotein and apolipoprotein B abnormalities.](#) - GMI Summary

Pubmed Data : Am J Chin Med. 2004;32(2):175-83. PMID: [19545870](#)

Article Published Date : Jan 01, 2004

Authors : Robert S Rosenson

Study Type : Commentary

Additional Links

Substances : [Niacin : CK\(134\) : AC\(27\)](#), [Omega-3 Fatty Acids : CK\(1938\) : AC\(318\)](#)

Diseases : [Apolipoprotein Disorders : CK\(28\) : AC\(9\)](#), [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

[Omega 3 fatty acids from marine oil reverse symptoms of metabolic syndrome in a rat model.](#) - GMI Summary

Pubmed Data : Lipids. 2007 May;42(5):427-37. Epub 2007 Mar 17. PMID: [17476547](#)

Article Published Date : May 01, 2007

Authors : Yolanda B Lombardo, Gustavo Hein, Adriana Chicco

Study Type : Animal Study

Additional Links

Substances : [Omega-3 Fatty Acids : CK\(1938\) : AC\(318\)](#)

Diseases : [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

[Omega 3 fatty acids improve the cardiovascular risk profile of subjects with metabolic syndrome, including markers of inflammation and auto-immunity.](#) - GMI Summary

Pubmed Data : Acta Cardiol. 2009 Jun;64(3):321-7. PMID: [19593941](#)

Article Published Date : Jun 01, 2009

Authors : Mahmoud Ebrahimi, Majid Ghayour-Mobarhan, Samaneh Rezaiean, Maryam Hoseini, Seyyed Mohamad Reza Parizade, Fatemeh Farhoudi, Syeed Javad Hosseininezhad, Shima Tavallaei, Amirhosein Vejdani, Mohsen Azimi-Nezhad, Mohamad Taghi Shakeri, Mina Akbari Rad, Naser Mobarra, Seyyed Mohammad Reza Kazemi-Bajestani, Gordon A A Ferns

Study Type : Human Study

Additional Links

Substances : [Omega-3 Fatty Acids : CK\(1938\) : AC\(318\)](#)

Diseases : [Autoimmune Diseases : CK\(3887\) : AC\(725\)](#), [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

[Omega-3 fatty acid consumption is inversely associated with incidence of hypertension.](#) - GMI Summary

Pubmed Data : J Intern Med. 2010 Dec 10. Epub 2010 Dec 10. PMID: [21205024](#)

Article Published Date : Dec 10, 2010

Authors : P Xun, N Hou, M Daviglius, K Liu, J S Morris, J M Shikany, S Sidney, D R Jacobs, K He

Study Type : Meta Analysis

Additional Links

Substances : [Fish Oil : CK\(457\) : AC\(89\)](#), [Omega-3 Fatty Acids : CK\(1938\) : AC\(318\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Hypotensive : CK\(239\) : AC\(45\)](#)

[Omega-3 fatty acids alleviate insulin resistance and fatty liver in obese mice.](#) - GMI Summary

Pubmed Data : Int Urol Nephrol. 2004;36(4):591-8. PMID: [19211925](#)

Article Published Date : Jan 01, 2004

Authors : Ana González-Pérez, Raquel Horrillo, Natàlia Ferré, Karsten Gronert, Baiyan Dong, Eva Morán-Salvador, Esther Titos, Marcos Martínez-Clemente, Marta López-Parra, Vicente Arroyo, Joan Clària

Study Type : Animal Study

Additional Links

Substances : [DHA \(Docosahexaenoic Acid\) : CK\(430\) : AC\(99\)](#), [EPA \(Eicosapentaenoic Acid\) : CK\(432\) : AC\(85\)](#), [Omega-3 Fatty Acids : CK\(1938\) : AC\(318\)](#)

Diseases : [Adiponectin: Low Levels : CK\(75\) : AC\(25\)](#), [Fatty Liver : CK\(449\) : AC\(109\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Pharmacological Actions : [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

[Omega-3 fatty acids compares favorably with rosiglitazone for improving insulin sensitivity in mice fed a high-fat diet.](#) - GMI Summary

Pubmed Data : Diabetologia. 2009 May;52(5):941-51. Epub 2009 Mar 11. PMID: [19277604](#)

Article Published Date : May 01, 2009

Authors : O Kuda, T Jelenik, Z Jilkova, P Flachs, M Rossmeisl, M Hensler, L Kazdova, N Ogston, M Baranowski, J Gorski, P Janovska, V Kus, J Polak, V Mohamed-Ali, R Burcelin, S Cinti, M Bryhn, J Kopecky

Study Type : Animal Study

Additional Links

Substances : [DHA \(Docosahexaenoic Acid\) : CK\(430\) : AC\(99\)](#), [EPA \(Eicosapentaenoic Acid\) : CK\(432\) : AC\(85\)](#), [Omega-3 Fatty Acids : CK\(1938\) : AC\(318\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

Additional Keywords : [Drug: Rosiglitazone : CK\(14\) : AC\(5\)](#), [Drug-Plant-Vitamin Synergies : CK\(816\) : AC\(275\)](#)

[Omega-3 Fatty acids supplementation prevents and reverses insulin resistance.](#) - GMI Summary

Pubmed Data : Curr Opin Clin Nutr Metab Care. 2009 Mar;12(2):138-46. PMID: [19202385](#)

Article Published Date : Mar 01, 2009

Authors : Dawn Fedor, Darshan S Kelley

Study Type : Review

Additional Links

Substances : [Omega-3 Fatty Acids : CK\(1938\) : AC\(318\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Fish Oil

[Dietary fish may normalize insulin resistance and adiposity in a diet induced insulin-resistant model.](#) - GMI Summary

Pubmed Data : Am J Physiol Regul Integr Comp Physiol. 2005 Aug;289(2):R486-R494. PMID: [16014450](#)

Article Published Date : Aug 01, 2005

Authors : Andrea S Rossi, Yolanda B Lombardo, Jean-Marc Lacorte, Adriana G Chicco, Christine Rouault, Gérard Slama, Salwa W Rizkalla

Study Type : Animal Study

Additional Links

Substances : [Fish Oil : CK\(457\) : AC\(89\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

[Dietary fish oil exerts hypolipidemic effects in lean and insulin sensitizing effects in obese mice, and reduces fatty liver in both.](#) - GMI Summary

Pubmed Data : J Nutr. 2009 Dec;139(12):2380-6. Epub 2009 Oct 28. PMID: [19864403](#)

Article Published Date : Dec 01, 2009

Authors : [No authors listed]

Study Type : Animal Study

Additional Links

Substances : [Fish Oil : CK\(457\) : AC\(89\)](#)

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Pharmacological Actions : [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

[Fish and argan oil have a beneficial effect on diet-induced insulin resistance and glucose intolerance.](#) - GMI Summary

Pubmed Data : Metabolism. 2009 Jul;58(7):909-19. PMID: [19394055](#)

Article Published Date : Jul 01, 2009

Authors : Samira Samane, Raymond Christon, Luce Dombrowski, Stéphane Turcotte, Zoubida Charrouf, Charles Lavigne, Emile Levy, H el ene Bachelard, Hamid Amarouch, Andr e Marette, Pierre Selim Haddad

Study Type : Animal Study

Additional Links

Substances : [Argan Oil : CK\(2\) : AC\(1\)](#), [Fish Oil : CK\(457\) : AC\(89\)](#)

Diseases : [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Additional Keywords : [Fructose Toxicity : CK\(15\) : AC\(5\)](#)

[Fish oil ameliorates insulin resistance and hypertension in a fructose-fed rat model.](#) - GMI Summary

Pubmed Data : Metabolism. 1997 Nov;46(11):1252-8. PMID: [9361681](#)

Article Published Date : Nov 01, 1997

Authors : Y J Huang, V S Fang, C C Juan, Y C Chou, C F Kwok, L T Ho

Study Type : Animal Study

Additional Links

Substances : [Fish Oil : CK\(457\) : AC\(89\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

[Fish oil is superior to lard, corn oil, or medium chain triglycerides in reducing intra-abdominal fat, total body fat and insulin resistance.](#) - GMI Summary

Pubmed Data : Int J Obes Relat Metab Disord. 1993 Apr;17(4):223-36. PMID: [8387971](#)

Article Published Date : Apr 01, 1993

Authors : [No authors listed]

Study Type : Animal Study

Additional Links

Substances : [Fish Oil : CK\(457\) : AC\(89\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

[Omega-3 fatty acid consumption is inversely associated with incidence of hypertension. -](#)

GMI Summary

Pubmed Data : J Intern Med. 2010 Dec 10. Epub 2010 Dec 10. PMID: [21205024](#)

Article Published Date : Dec 10, 2010

Authors : P Xun, N Hou, M Daviglius, K Liu, J S Morris, J M Shikany, S Sidney, D R Jacobs, K He

Study Type : Meta Analysis

Additional Links

Substances : [Fish Oil : CK\(457\) : AC\(89\)](#), [Omega-3 Fatty Acids : CK\(1938\) : AC\(318\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Hypotensive : CK\(239\) : AC\(45\)](#)

[Red Yeast Rice demonstrates blood lipid profile modulating activity similar to that of simvastatin \(Zocor\) -](#)

GMI Summary

Pubmed Data : Mayo Clin Proc. 2008 Jul;83(7):758-64. PMID: [18613992](#)

Article Published Date : Jul 01, 2008

Authors : David J Becker, Ram Y Gordon, Patti B Morris, Jacqueline Yorke, Y Jerold Gordon, Mingyao Li, Nayyar Iqbal

Study Type : Human Study

Additional Links

Substances : [Fish Oil : CK\(457\) : AC\(89\)](#), [Red Yeast Rice : CK\(118\) : AC\(33\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#), [Triglycerides: Elevated : CK\(227\) : AC\(64\)](#)

Isoflavones

[A daily supplement of soy protein prevents the increase in subcutaneous and total abdominal fat in postmenopausal women. -](#)

GMI Summary

Pubmed Data : Fertil Steril. 2007 Dec;88(6):1609-17. Epub 2007 Apr 6. PMID: [17412329](#)

Article Published Date : Dec 01, 2007

Authors : Cynthia K Sites, Brian C Cooper, Michael J Toth, Amalia Gastaldelli, Ali Arabshahi, Stephen Barnes

Study Type : Human Study

Additional Links

Substances : [Isoflavones : CK\(428\) : AC\(122\)](#), [Soy Protein : CK\(245\) : AC\(56\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#)

[Dietary soy protein isolate attenuates metabolic syndrome in rats. -](#)

GMI Summary

Pubmed Data : J Nutr. 2009 Aug;139(8):1431-8. Epub 2009 Jun 10. PMID: [19515742](#)

Article Published Date : Aug 01, 2009

Authors : Martin J Ronis, Ying Chen, Jamie Badeaux, Thomas M Badger

Study Type : Animal Study

Additional Links

Substances : [Daidzein : CK\(76\) : AC\(27\)](#), [Genistein : CK\(395\) : AC\(169\)](#), [Isoflavones : CK\(428\) : AC\(122\)](#), [Soy Protein : CK\(245\) : AC\(56\)](#)

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Pharmacological Actions : [Anticholesteremic Agents : CK\(180\) : AC\(38\)](#)

[Isoflavones, taken orally, reduced blood pressure and central arterial stiffness indicating](#)

reduced cardiovascular risk. - GMI Summary

Pubmed Data : Atherosclerosis. 2007 May;192(1):184-9. Epub 2006 May 30. PMID: [16730732](#)

Article Published Date : May 01, 2007

Authors : Paul Nestel, Akihiko Fujii, Lei Zhang

Study Type : Human Study

Additional Links

Substances : [Isoflavones : CK\(428\) : AC\(122\)](#)

Diseases : [Arterial Hardening: Elasticity : CK\(94\) : AC\(17\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Isoflavonoids and peptides from meju, long-term fermented soybeans, increase insulin sensitivity and exert insulinotropic effects in vitro. - GMI Summary

Pubmed Data : Nutrition. 2011 Feb;27(2):244-52. Epub 2010 Jun 11. PMID: [20541368](#)

Article Published Date : Feb 01, 2011

Authors : Dae Young Kwon, Sang Mee Hong, Il Sung Ahn, Min Jung Kim, Hye Jeong Yang, Sunmin Park

Study Type : In Vitro Study

Additional Links

Substances : [Daidzein : CK\(76\) : AC\(27\)](#), [Genistein : CK\(395\) : AC\(169\)](#), [Isoflavones : CK\(428\) : AC\(122\)](#), [Soy : CK\(1229\) : AC\(332\)](#), [Soy: Fermented : CK\(69\) : AC\(23\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Pharmacological Actions : [Glucagon Like peptide 1 \(GLP-1\) Up-regulation : CK\(129\) : AC\(30\)](#), [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#), [Insulinotropic : CK\(15\) : AC\(7\)](#)

Red clover extract may provide a simultaneous treatment for menopausal disorders and the metabolic syndrome. - GMI Summary

Pubmed Data : Menopause. 2008 Nov-Dec;15(6):1120-31. PMID: [18724264](#)

Article Published Date : Nov 01, 2008

Authors : Monika Mueller, Alois Jungbauer

Study Type : Commentary

Additional Links

Substances : [Isoflavones : CK\(428\) : AC\(122\)](#), [Red Clover : CK\(30\) : AC\(9\)](#)

Diseases : [Menopausal Syndrome : CK\(107\) : AC\(21\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

Soy isoflavone may ameliorate insulin sensitivity by decreasing visceral adipose deposition and adjusting low-grade inflammatory molecules derived from white adipose tissue. - GMI Summary

Pubmed Data : Life Sci. 2003 Sep 5;73(16):2127-36. PMID: [17062358](#)

Article Published Date : Sep 05, 2003

Authors : Shi-wei Chen, Li-shi Zhang, Hong-Min Zhang, Xiao-fan Feng

Study Type : Animal Study

Additional Links

Substances : [Isoflavones : CK\(428\) : AC\(122\)](#), [Soy : CK\(1229\) : AC\(332\)](#)

Diseases : [Adiponectin: Low Levels : CK\(75\) : AC\(25\)](#), [C-Reactive Protein : CK\(425\) : AC\(72\)](#), [Inflammation : CK\(829\) : AC\(330\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Tumor Necrosis Factor \(TNF\) Alpha Inhibitor : CK\(858\) : AC\(330\)](#)

[Soy isoflavones improve endothelial function in spontaneously hypertensive rats.](#) - GMI

Summary

Pubmed Data : Pharmacology. 2003 Jun;68(2):81-8. PMID: [15958720](#)

Article Published Date : Jun 01, 2003

Authors : Rocío Vera, Milagros Galisteo, Inmaculada Concepción Villar, Manuel Sánchez, Antonio Zarzuelo, Francisco Pérez-Vizcaíno, Juan Duarte

Study Type : Animal Study

Additional Links

Substances : [Genistein : CK\(395\) : AC\(169\)](#), [Isoflavones : CK\(428\) : AC\(122\)](#), [Soy : CK\(1229\) : AC\(332\)](#)

Diseases : [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Nitric Oxide Enhancer : CK\(126\) : AC\(32\)](#)

[The hypotensive and anti-inflammatory effect of soy nut consumption may be due to a reduction in soluble vascular cell adhesion molecule-1 which results in an improvement in endothelial function.](#) - GMI Summary

Pubmed Data : Am J Cardiol. 2008 Jul 1;102(1):84-6. Epub 2008 Apr 16. PMID: [18572041](#)

Article Published Date : Jul 01, 2008

Authors : Melita M Nasca, Jin-Rong Zhou, Francine K Welty

Study Type : Human Study

Additional Links

Substances : [Isoflavones : CK\(428\) : AC\(122\)](#), [Soy Protein : CK\(245\) : AC\(56\)](#)

Diseases : [C-Reactive Protein : CK\(425\) : AC\(72\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Inflammation : CK\(829\) : AC\(330\)](#)

Pharmacological Actions : [Interleukin-6 Downregulation : CK\(393\) : AC\(131\)](#), [Matrix metalloproteinase-2 \(MMP-2\) inhibitor : CK\(149\) : AC\(66\)](#), [Vascular Cell Adhesion Molecule-1 Inhibitor : CK\(65\) : AC\(20\)](#)

Polyphenols

[Blood pressure is reduced and insulin sensitivity increased in glucose-intolerant, hypertensive subjects after 15 days of consuming high-polyphenol dark chocolate.](#) - GMI

Summary

Pubmed Data : J Nutr. 2008 Sep;138(9):1671-6. PMID: [18716168](#)

Article Published Date : Sep 01, 2008

Authors : Davide Grassi, Giovambattista Desideri, Stefano Necozione, Cristina Lippi, Raffaele Casale, Giuliana Properzi, Jeffrey B Blumberg, Claudio Ferri

Study Type : Human Study

Additional Links

Substances : [Flavonoids : CK\(732\) : AC\(287\)](#), [Polyphenols : CK\(382\) : AC\(170\)](#)

Diseases : [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

[Fenugreek seed polyphenolic extract and quercetin compares favorably to metformin in improving insulin signaling, sensitivity and functioning in a rat model.](#) - GMI Summary

Pubmed Data : Indian J Med Res. 2009 Apr;129(4):401-8. PMID: [19535835](#)

Article Published Date : Apr 01, 2009

Authors : S Kannappan, C V Anuradha

Study Type : Animal Study

Additional Links

Substances : [Fenugreek](#) : CK(76) : AC(28), [Polyphenols](#) : CK(382) : AC(170)

Diseases : [Insulin Resistance](#) : CK(707) : AC(184)

Additional Keywords : [Drug: Metformin](#) : CK(141) : AC(22), [Natural Substances Versus Drugs](#) : CK(832) : AC(164), [Plant Extracts](#) : CK(3121) : AC(1098)

[Muskmelon, watermelon and mango fruit may have an ameliorative effect on atherogenic diet induced dyslipidemia, hypothyroidism and hyperglycemia in rats.](#) - GMI Summary

Pubmed Data : Biofactors. 2008;33(1):13-24. PMID: [19276533](#)

Article Published Date : Jan 01, 2008

Authors : Hamendra Singh Parmar, Anand Kar

Study Type : Animal Study

Additional Links

Substances : [Flavonoids](#) : CK(732) : AC(287), [Mango](#) : CK(23) : AC(11), [Muskmelon](#) : CK(3) : AC(1), [Polyphenols](#) : CK(382) : AC(170), [Vitamin C](#) : CK(817) : AC(234), [Watermelon](#) : CK(40) : AC(9)

Diseases : [Arteriosclerosis](#) : CK(409) : AC(137), [Dyslipidemias](#) : CK(157) : AC(29), [Hyperglycemia](#) : CK(145) : AC(47), [Hypothyroidism](#) : CK(391) : AC(75), [Oxidative Stress](#) : CK(1631) : AC(660)

Pharmacological Actions : [Hypoglycemic Agents](#) : CK(441) : AC(143)

Additional Keywords : [Plant Extracts](#) : CK(3121) : AC(1098)

[Polyphenols may have therapeutic value in a variety of diseases through modulating AMP-activated protein kinase which reduce fatty acid and cholesterol synthesis and gluconeogenesis.](#) - GMI Summary

Pubmed Data : N Biotechnol.2009 Oct 1;26(1-2):17-22. Epub 2009 Apr 2. PMID: [19818314](#)

Article Published Date : Oct 01, 2009

Authors : Jin-Taek Hwang, Dae Young Kwon, Suk Hoo Yoon

Study Type : Commentary

Additional Links

Substances : [Berberine](#) : CK(132) : AC(67), [EGCG \(Epigallocatechin gallate\)](#) : CK(183) : AC(114), [Polyphenols](#) : CK(382) : AC(170), [Quercetin](#) : CK(265) : AC(134), [Resveratrol](#) : CK(1005) : AC(591)

Diseases : [Diabetes Mellitus: Type 1](#) : CK(743) : AC(207), [Diabetes Mellitus: Type 2](#) : CK(2227) : AC(301), [Hypertension](#) : CK(1319) : AC(254), [Metabolic Syndrome X](#) : CK(376) : AC(97), [Obesity](#) : CK(963) : AC(251)

Pharmacological Actions : [AMP-activated protein kinase modulation](#) : CK(2) : AC(2), [Gluconeogenesis Inhibitor](#) : CK(26) : AC(14)

[Red wine polyphenols prevent cyclosporine-induced nephrotoxicity at the level of the intrinsic apoptotic pathway.](#) - GMI Summary

Pubmed Data : Physiol Res. 2009;58(4):511-9. Epub 2008 Jul 25. PMID: [18656999](#)

Article Published Date : Jan 01, 2009

Authors : R Rezzani, S Tengattini, F Bonomini, F Filippini, O Pechánová, R Bianchi, R Andriantsitohaina

Study Type : In Vitro Study

Additional Links

Substances : [Flavonoids](#) : CK(732) : AC(287), [Polyphenols](#) : CK(382) : AC(170), [Red Wine Extract](#) : CK(60) : AC(25)

Diseases : [Hypertension](#) : CK(1319) : AC(254), [Kidney Damage: Drug-Induced](#) : CK(69) : AC(18), [Oxidative Stress](#) : CK(1631) : AC(660)

Pharmacological Actions : [Apoptotic](#) : CK(1423) : AC(1028), [Renoprotective](#) : CK(173) : AC(76)

[Red wine polyphenols prevent hypertension and endothelial dysfunction in rats. - GMI](#)

Summary

Pubmed Data : Cardiovasc Res. 2006 Sep 1;71(4):794-802. Epub 2006 May 26. PMID: [16822492](#)

Article Published Date : Sep 01, 2006

Authors : Mamadou Sarr, Marta Chataigneau, Sandrine Martins, Christa Schott, Jasser El Bedoui, Min-Ho Oak, Bernard Muller, Thierry Chataigneau, Valérie B Schini-Kerth

Study Type : Animal Study

Additional Links

Substances : [Flavonoids : CK\(732\) : AC\(287\)](#), [Polyphenols : CK\(382\) : AC\(170\)](#), [Red Wine Extract : CK\(60\) : AC\(25\)](#)

Diseases : [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Cardioprotective : CK\(540\) : AC\(179\)](#), [Vasodilator Agents : CK\(223\) : AC\(50\)](#)

[Short-term cocoa consumption significantly reduces blood cholesterol. - GMI Summary](#)

Pubmed Data : Am J Clin Nutr. 2010 Jul;92(1):218-25. Epub 2010 May 26. PMID: [20504978](#)

Article Published Date : Jul 01, 2010

Authors : Lei Jia, Xuan Liu, Yong Yi Bai, Shao Hua Li, Kai Sun, Chen He, Rutai Hui

Study Type : Human Study

Additional Links

Substances : [Cocoa : CK\(192\) : AC\(43\)](#), [Flavonoids : CK\(732\) : AC\(287\)](#), [Polyphenols : CK\(382\) : AC\(170\)](#)

Diseases : [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Anticholesteremic Agents : CK\(180\) : AC\(38\)](#)

[Sprouting buckwheat triggers a variety of nutritional changes increasing hypocholesterolemic, hypotriglyceridemic, and antioxidative activities. - GMI Summary](#)

Pubmed Data : J Agric Food Chem. 2008 Feb 27;56(4):1216-23. Epub 2008 Jan 24. PMID: [18217700](#)

Article Published Date : Feb 27, 2008

Authors : Li-Yun Lin, Chiung-Chi Peng, Ya-Lu Yang, Robert Y Peng

Study Type : In Vitro Study

Additional Links

Substances : [Buckwheat : CK\(50\) : AC\(16\)](#), [Flavonoids : CK\(732\) : AC\(287\)](#), [Polyphenols : CK\(382\) : AC\(170\)](#), [Quercetin : CK\(265\) : AC\(134\)](#), [Rutin : CK\(75\) : AC\(29\)](#), [Sprouts : CK\(72\) : AC\(35\)](#), [Vitamin C : CK\(817\) : AC\(234\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hyperlipidemia : CK\(403\) : AC\(105\)](#), [Triglycerides: Elevated : CK\(227\) : AC\(64\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Hypolipidemic : CK\(282\) : AC\(75\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

Flaxseed

[A flax and pumpkin seed mixture has anti-atherogenic and hepatoprotective effects. - GMI Summary](#)

Pubmed Data : Food Chem Toxicol. 2008 Dec;46(12):3714-20. Epub 2008 Oct 1. PMID: [18938206](#)

Article Published Date : Dec 01, 2008

Authors : M Makni, H Fetoui, N K Gargouri, El M Garoui, H Jaber, J Makni, T Boudawara, N Zeghal

Study Type : Animal Study

Additional Links

Substances : [Flaxseed](#) : CK(194) : AC(54), [Omega-3 Fatty Acids](#) : CK(1938) : AC(318), [Pumpkin Seed Oil/Meal](#) : CK(47) : AC(12)

Diseases : [Arteriosclerosis](#) : CK(409) : AC(137), [High Cholesterol](#) : CK(865) : AC(192)

Pharmacological Actions : [Antioxidants](#) : CK(3106) : AC(1219), [Hepatoprotective](#) : CK(580) : AC(245)

[Dietary supplementation with flaxseed oil lowers blood pressure in dyslipidaemic patients.](#) - GMI Summary

Pubmed Data : Eur J Clin Nutr. 2007 Oct;61(10):1201-6. Epub 2007 Jan 31. PMID: [17268413](#)

Article Published Date : Oct 01, 2007

Authors : G K Paschos, F Magkos, D B Panagiotakos, V Votteas, A Zampelas

Study Type : Human Study

Additional Links

Substances : [ALA \(Alpha-Linolenic Acid\)](#) : CK(31) : AC(8), [Flaxseed](#) : CK(194) : AC(54)

Diseases : [Cardiovascular Diseases](#) : CK(3633) : AC(602), [Dyslipidemias](#) : CK(157) : AC(29)

Pharmacological Actions : [Hypotensive](#) : CK(239) : AC(45)

[Fish oil, but not flaxseed oil, decreases inflammation and prevents pressure overload-induced cardiac dysfunction.](#) - GMI Summary

Pubmed Data : Immunopharmacol Immunotoxicol. 2009;31(2):209-13. PMID: [19015135](#)

Article Published Date : Jan 01, 2009

Authors : Monika K Duda, Karen M O'Shea, Anselm Tintinu, Wenhong Xu, Ramzi J Khairallah, Brian R Barrows, David J Chess, Agnes M Azimzadeh, William S Harris, Victor G Sharov, Hani N Sabbah, William C Stanley

Study Type : Animal Study

Additional Links

Substances : [Flaxseed](#) : CK(194) : AC(54), [Omega-3 Fatty Acids](#) : CK(1938) : AC(318)

Diseases : [Adiponectin: Low Levels](#) : CK(75) : AC(25), [Heart Failure](#) : CK(452) : AC(85), [Hypertension](#) : CK(1319) : AC(254)

Pharmacological Actions : [Tumor Necrosis Factor \(TNF\) Alpha Inhibitor](#) : CK(858) : AC(330)

Additional Keywords : [Flax Versus Fish Oil](#) : CK(4) : AC(2)

[Flaxseed lignan attenuates high-fat diet-induced visceral and liver fat accumulation and induces adiponectin expression in mice.](#) - GMI Summary

Pubmed Data : Br J Nutr. 2008 Sep;100(3):669-76. Epub 2008 Feb 6. PMID: [18252024](#)

Article Published Date : Sep 01, 2008

Authors : S Fukumitsu, K Aida, N Ueno, S Ozawa, Y Takahashi, M Kobori

Study Type : Animal Study

Additional Links

Substances : [Enterodiol](#) : CK(32) : AC(12), [Flaxseed](#) : CK(194) : AC(54), [Lignans](#) : CK(84) : AC(28), [Secoisolariciresinol diglucoside \(SDG\)](#) : CK(8) : AC(4)

Diseases : [Abdominal Obesity \(Midsection Fat\)](#) : CK(227) : AC(47), [Adiponectin: Low Levels](#) : CK(75) : AC(25), [Fatty Liver](#) : CK(449) : AC(109)

Pharmacological Actions : [Anti-Adipogenic](#) : CK(79) : AC(38)

[Flaxseed lignan has therapeutic value in the treatment of metabolic syndrome in men.](#) - GMI Summary

Pubmed Data : Appl Physiol Nutr Metab. 2009 Apr;34(2):89-98. PMID: [19370038](#)

Article Published Date : Apr 01, 2009

Authors : Stephen M Cornish, Philip D Chilibeck, Lisa Paus-Jennsen, H Jay Biem, Talaei Khozani, Vijitha Senanayake, Hassanali Vatanparast, Jonathan P Little, Susan J Whiting, Punam Pahwa

Study Type : Human Study

Additional Links

Substances : [Flaxseed](#) : CK(194) : AC(54)

Diseases : [Metabolic Syndrome X](#) : CK(376) : AC(97)

[Flaxseed may reduce circulating total and LDL-cholesterol levels.](#) - GMI Summary

Pubmed Data : Am J Clin Nutr. 2009 Aug;90(2):288-97. Epub 2009 Jun 10. PMID: [19515737](#)

Article Published Date : Aug 01, 2009

Authors : An Pan, Danxia Yu, Wendy Demark-Wahnefried, Oscar H Franco, Xu Lin

Study Type : Human Study

Additional Links

Substances : [Flaxseed](#) : CK(194) : AC(54), [Lignans](#) : CK(84) : AC(28)

Diseases : [Cholesterol: LDL/HDL ratio](#) : CK(287) : AC(52), [High Cholesterol](#) : CK(865) : AC(192)

Pharmacological Actions : [Anticholesteremic Agents](#) : CK(180) : AC(38)

Organochlorine pesticides

[Exposure to low-dose persistent organic pollutants appears to contribute to development of obesity, dyslipidemia, and insulin resistance.](#) - GMI Summary

Pubmed Data : PLoS One. 2011;6(1):e15977. Epub 2011 Jan 26. PMID: [21298090](#)

Article Published Date : Jan 01, 2011

Authors : Duk-Hee Lee, Michael W Steffes, Andreas Sjödin, Richard S Jones, Larry L Needham, David R Jacobs

Study Type : Human Study

Additional Links

Diseases : [Dyslipidemias](#) : CK(157) : AC(29), [Insulin Resistance](#) : CK(707) : AC(184), [Obesity](#) : CK(963) : AC(251)

Problem Substances : [Organochlorine pesticides](#) : CK(162) : AC(26), [Persistent organic pollutants \(POPs\)](#) : CK(68) : AC(11), [Polychlorinated biphenyls \(PCBs\)](#) : CK(142) : AC(23)

Other : [Endocrine Disruptor](#) : CK(283) : AC(56), [Endocrine Disruptor: Insulin Resistance](#) : CK(50) : AC(18)

[Serum concentrations of PCBs, especially those congeners with multiple ortho chlorines, were strongly associated with both systolic and diastolic blood pressure.](#) - GMI Summary

Pubmed Data : Environ Health Perspect. 2011 Mar ;119(3):319-25. PMID: [21362590](#)

Article Published Date : Mar 01, 2011

Authors : Alexey Goncharov, Marian Pavuk, Herman R Foushee, David O Carpenter

Study Type : Meta Analysis

Additional Links

Diseases : [Hypertension](#) : CK(1319) : AC(254)

Problem Substances : [Organochlorine compounds](#) : CK(81) : AC(13), [Organochlorine pesticides](#) : CK(162) : AC(26), [Pesticides](#) : CK(441) : AC(37), [Polychlorinated biphenyls \(PCBs\)](#) : CK(142) : AC(23)

Other : [Hypertensive](#) : CK(68) : AC(9)

[There is a relationship between serum concentrations of persistent organic pollutants and the prevalence of metabolic syndrome among non-diabetic adults.](#) - GMI Summary

Pubmed Data : Diabetologia. 2007 Sep;50(9):1841-51. Epub 2007 Jul 12. PMID: [17624515](#)

Article Published Date : Sep 01, 2007

Authors : D-H Lee, I-K Lee, M Porta, M Steffes, D R Jacobs

Study Type : Human Study

Additional Links

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Problem Substances : [Organochlorine pesticides : CK\(162\) : AC\(26\)](#), [Persistent organic pollutants \(POPs\) : CK\(68\) : AC\(11\)](#)

Lactobacillus probiotics

[A fermented whey product has therapeutic value in the treatment of metabolic syndrome. -](#)

GMI Summary

Pubmed Data : J Med Food. 2010 Jun;13(3):509-19. PMID: [20406141](#)

Article Published Date : Jun 01, 2010

Authors : J Beaulieu, E Millette, E Trottier, L-P Précourt, C Dupont, P Lemieux

Study Type : Human Study

Additional Links

Substances : [Fermented Foods and Beverages : CK\(528\) : AC\(127\)](#), [Lactobacillus probiotics : CK\(904\) : AC\(143\)](#), [Whey : CK\(269\) : AC\(70\)](#)

Diseases : [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Pharmacological Actions : [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

Magnesium

[Impaired glucose tolerance and dyslipidaemia associated with OC use may be prevented by increased dietary magnesium. - GMI Summary](#)

Pubmed Data : Afr J Med Med Sci. 2008 Jun;37(2):135-9. PMID: [18939396](#)

Article Published Date : Jun 01, 2008

Authors : L A Olatunji, I P Oyeyipo, O S Micheal, A O Soladoye

Study Type : Human Study

Additional Links

Substances : [Magnesium : CK\(671\) : AC\(121\)](#)

Diseases : [Contraception : CK\(9\) : AC\(4\)](#), [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

[Magnesium deficiency contributes to cardiovascular disease, hypertension, diabetes and atherosclerosis. - GMI Summary](#)

Pubmed Data : J Clin Epidemiol. 1995 Jul;48(7):927-40. PMID: [7782801](#)

Article Published Date : Jul 01, 1995

Authors : J Ma, A R Folsom, S L Melnick, J H Eckfeldt, A R Sharrett, A A Nabulsi, R G Hutchinson, P A Metcalf

Study Type : Commentary

Additional Links

Substances : [Magnesium : CK\(671\) : AC\(121\)](#)

Diseases : [Arteriosclerosis : CK\(409\) : AC\(137\)](#), [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [Diabetes Mellitus: Type 1 : CK\(743\) : AC\(207\)](#), [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

[Magnesium deficiency contributes to detrimental vascular changes and hypertension.](#) - GMI

Summary

Pubmed Data : Hypertension. 1999 May;33(5):1105-10. PMID: [10334795](#)

Article Published Date : May 01, 1999

Authors : P Laurant, D Hayoz, H R Brunner, A Berthelot

Study Type : Animal Study

Additional Links

Substances : [Magnesium : CK\(671\) : AC\(121\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

[Magnesium intake is inversely associated with prevalence of the metabolic syndrome in older adults.](#) - GMI Summary

Pubmed Data : Eur J Nutr. 2008 Jun;47(4):210-6. Epub 2008 Jun 16. PMID: [18560789](#)

Article Published Date : Jun 01, 2008

Authors : Nicola M McKeown, Paul F Jacques, Xinli L Zhang, Wenyan Juan, Nadine R Sahyoun

Study Type : Human Study

Additional Links

Substances : [Magnesium : CK\(671\) : AC\(121\)](#)

Diseases : [Aging : CK\(1231\) : AC\(350\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

[Oral magnesium supplementation improves insulin sensitivity and metabolic control in type 2 diabetic subjects.](#) - GMI Summary

Pubmed Data : Diabetes Care. 2003 Apr;26(4):1147-52. PMID: [12663588](#)

Article Published Date : Apr 01, 2003

Authors : Martha Rodríguez-Morán, Fernando Guerrero-Romero

Study Type : Human Study

Additional Links

Substances : [Magnesium : CK\(671\) : AC\(121\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

[Oral magnesium supplementation with MgCl significantly reduces blood pressure in diabetic hypertensive adults with hypomagnesaemia.](#) - GMI Summary

Pubmed Data : J Hum Hypertens. 2009 Apr;23(4):245-51. Epub 2008 Nov 20. PMID: [19020533](#)

Article Published Date : Apr 01, 2009

Authors : F Guerrero-Romero, M Rodríguez-Morán

Study Type : Human Study

Additional Links

Substances : [Magnesium : CK\(671\) : AC\(121\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#), [Magnesium Deficiency : CK\(44\) : AC\(9\)](#)

Pharmacological Actions : [Hypotensive : CK\(239\) : AC\(45\)](#)

[Young adults with higher magnesium intake have lower risk of development of metabolic syndrome.](#) - GMI Summary

Pubmed Data : Turk J Pediatr. 2009 May-Jun;51(3):220-4. PMID: [16567569](#)

Article Published Date : May 01, 2009

Authors : Ka He, Kiang Liu, Martha L Daviglius, Steven J Morris, Catherine M Loria, Linda Van Horn, David R Jacobs, Peter J Savage

Study Type : Human Study

Additional Links

Substances : [Magnesium : CK\(671\) : AC\(121\)](#)

Diseases : [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Sugary soda

[: In middle-aged adults, soft drink consumption is associated with a higher prevalence and incidence of multiple metabolic risk factors. - GMI Summary](#)

Pubmed Data : Circulation. 2007 Jul 31;116(5):480-8. Epub 2007 Jul 23. PMID: [17646581](#)

Article Published Date : Jul 31, 2007

Authors : Ravi Dhingra, Lisa Sullivan, Paul F Jacques, Thomas J Wang, Caroline S Fox, James B Meigs, Ralph B D'Agostino, J Michael Gaziano, Ramachandran S Vasani

Study Type : Human Study

Additional Links

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Problem Substances : [Sugary soda : CK\(91\) : AC\(17\)](#)

[Higher sugar-sweetened beverage consumption is associated with higher serum uric acid levels and systolic blood pressure in US adolescents. - GMI Summary](#)

Pubmed Data : J Pediatr. 2009 Jun;154(6):807-13. Epub 2009 Apr 17. PMID: [19375714](#)

Article Published Date : Jun 01, 2009

Authors : Stephanie Nguyen, Hyon K Choi, Robert H Lustig, Chi-yuan Hsu

Study Type : Human Study

Additional Links

Diseases : [Adolescent Diseases : CK\(25\) : AC\(3\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Hyperuricemia : CK\(137\) : AC\(31\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#), [Sugar Sweetened Beverages : CK\(40\) : AC\(6\)](#), [Sugary soda : CK\(91\) : AC\(17\)](#)

[Soft drinks consumption \(fructose\) and nonalcoholic fatty liver disease. - GMI Summary](#)

Pubmed Data : World J Gastroenterol. 2010 Jun 7;16(21):2579-88. PMID: [20518077](#)

Article Published Date : Jun 07, 2010

Authors : William Nseir, Fares Nassar, Nimer Assy

Study Type : Review

Additional Links

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Liver Stress: Fructose-Induced : CK\(21\) : AC\(10\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Nonalcoholic fatty liver disease \(NAFLD\) : CK\(50\) : AC\(16\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#), [High Fructose Corn Syrup : CK\(47\) : AC\(9\)](#), [Sugary soda : CK\(91\) : AC\(17\)](#)

Other : [Endocrine Disruptor: Insulin Resistance : CK\(50\) : AC\(18\)](#), [Hepatotoxic : CK\(95\) : AC\(34\)](#)

[The consumption of fructose-containing sugar-sweetened beverage is associated with a more atherogenic LDL lipid profile. - GMI Summary](#)

Pubmed Data : Am J Clin Nutr. 2011 Jun 15. Epub 2011 Jun 15. PMID: [21677052](#)

Article Published Date : Jun 15, 2011

Authors : Isabelle Aeberli, Philipp A Gerber, Michel Hochuli, Sibylle Kohler, Sarah R Haile, Ioanna Gouni-Berthold, Heiner K Berthold, Giatgen A Spinass, Kaspar Berneis

Study Type : Human Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [Dyslipidemias : CK\(157\) : AC\(29\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#), [Sugar Sweetened Beverages : CK\(40\) : AC\(6\)](#), [Sugary soda : CK\(91\) : AC\(17\)](#)

Other : [Atherogenic : CK\(11\) : AC\(2\)](#), [Cardiotoxic : CK\(467\) : AC\(53\)](#)

[The consumption of sugar-sweetened soft drinks may be associated with a modest but significant increase in risk of pancreatic cancer among women who have an underlying degree of insulin resistance. - GMI Summary](#)

Pubmed Data : Cancer Epidemiol Biomarkers Prev. 2005 Sep;14(9):2098-105. PMID: [16172216](#)

Article Published Date : Sep 01, 2005

Authors : Eva S Schernhammer, Frank B Hu, Ed Giovannucci, Dominique S Michaud, Graham A Colditz, Meir J Stampfer, Charles S Fuchs

Study Type : Human Study

Additional Links

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Pancreatic Cancer : CK\(425\) : AC\(154\)](#)

Additional Keywords : [Diseases that are Linked : CK\(1588\) : AC\(254\)](#)

Problem Substances : [Sugary soda : CK\(91\) : AC\(17\)](#)

Red Yeast Rice

[A combination of berberine, red yeast rice and policosanol lowers lipid levels and improves endothelial function and insulin sensitivity in hypercholesterolemic patients. - GMI Summary](#)

Pubmed Data : Nutr Metab Cardiovasc Dis. 2009 Aug 19. Epub 2009 Aug 19. PMID: [19699071](#)

Article Published Date : Aug 19, 2009

Authors : F Affuso, A Ruvolo, F Micillo, L Saccà, S Fazio

Study Type : Human Study

Additional Links

Substances : [Berberine : CK\(132\) : AC\(67\)](#), [Policosanol : CK\(174\) : AC\(25\)](#), [Red Yeast Rice : CK\(118\) : AC\(33\)](#)

Diseases : [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Hypercholesterolemia : CK\(692\) : AC\(159\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

[Red Yeast Rice demonstrates blood lipid profile modulating activity similar to that of simvastatin \(Zocor\) - GMI Summary](#)

Pubmed Data : Mayo Clin Proc. 2008 Jul;83(7):758-64. PMID: [18613992](#)

Article Published Date : Jul 01, 2008

Authors : David J Becker, Ram Y Gordon, Patti B Morris, Jacqueline Yorke, Y Jerold Gordon, Mingyao Li, Nayyar Iqbal

Study Type : Human Study

Additional Links

Substances : [Fish Oil : CK\(457\) : AC\(89\)](#), [Red Yeast Rice : CK\(118\) : AC\(33\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#), [Triglycerides: Elevated : CK\(227\) : AC\(64\)](#)

[Red yeast rice is a well-tolerated and effective alternative to statin therapy for patients with blood lipid disorders.](#) - GMI Summary

Pubmed Data : Ann Intern Med. 2009 Jun 16;150(12):830-9, W147-9. PMID: [19528562](#)

Article Published Date : Jun 16, 2009

Authors : David J Becker, Ram Y Gordon, Steven C Halbert, Benjamin French, Patti B Morris, Daniel J Rader

Study Type : Human Study

Additional Links

Substances : [Red Yeast Rice : CK\(118\) : AC\(33\)](#)

Diseases : [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Hypercholesterolemia : CK\(692\) : AC\(159\)](#)

[Red Yeast Rice is more effective than lovastatin in lowering serum lipids, liver cholesterol levels and inhibiting hepatic steatosis in quail.](#) - GMI Summary

Pubmed Data : Res Commun Mol Pathol Pharmacol. 2006;119(1-6):67-75. PMID: [17974097](#)

Article Published Date : Jan 01, 2006

Authors : Wei Wei, Changling Li, Yinye Wang, David Kritchevsky

Study Type : Animal Study

Additional Links

Substances : [Red Yeast Rice : CK\(118\) : AC\(33\)](#)

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Additional Keywords : [Superiority of Natural Substances versus Drugs : CK\(754\) : AC\(168\)](#)

[Red Yeast Rice may offer an ideal therapeutic agent for metabolic syndrome.](#) - GMI Summary

Pubmed Data : Chin J Integr Med. 2005 Dec;11(4):309-13. PMID: [16417786](#)

Article Published Date : Dec 01, 2005

Authors : Antonio Bianchi

Study Type : Commentary

Additional Links

Substances : [Red Yeast Rice : CK\(118\) : AC\(33\)](#)

Diseases : [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

[Red Yeast Rice significantly and positively improves blood lipid profiles.](#) - GMI Summary

Pubmed Data : Am J Clin Nutr. 1999 Feb;69(2):231-6. PMID: [9989685](#)

Article Published Date : Feb 01, 1999

Authors : D Heber, I Yip, J M Ashley, D A Elashoff, R M Elashoff, V L Go

Study Type : Human Study

Additional Links

Substances : [Red Yeast Rice : CK\(118\) : AC\(33\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#), [Triglycerides: Elevated : CK\(227\) : AC\(64\)](#)

Berberine

[A combination of berberine, red yeast rice and policosanol lowers lipid levels and improves endothelial function and insulin sensitivity in hypercholesterolemic patients. - GMI](#)

Summary

Pubmed Data : Nutr Metab Cardiovasc Dis. 2009 Aug 19. Epub 2009 Aug 19. PMID: [19699071](#)

Article Published Date : Aug 19, 2009

Authors : F Affuso, A Ruvolo, F Micillo, L Saccà, S Fazio

Study Type : Human Study

Additional Links

Substances : [Berberine : CK\(132\) : AC\(67\)](#), [Policosanol : CK\(174\) : AC\(25\)](#), [Red Yeast Rice : CK\(118\) : AC\(33\)](#)

Diseases : [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Hypercholesterolemia : CK\(692\) : AC\(159\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

[Berberine and puerarin lower the degree of insulin resistance and the androgen synthesis in porcine ovarian thecal cells, indicating their potential value in the treatment of polycystic syndrome. - GMI Summary](#)

Pubmed Data : Zhongguo Zhong Xi Yi Jie He Za Zhi. 2009 Jul;29(7):623-7. PMID: [19852296](#)

Article Published Date : Jul 01, 2009

Authors : Lei Gao, Wei Li, Hong-Ying Kuang

Study Type : In Vitro Study

Additional Links

Substances : [Berberine : CK\(132\) : AC\(67\)](#), [Puerarin : CK\(15\) : AC\(7\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Polycystic Ovary Syndrome : CK\(147\) : AC\(21\)](#)

[Berberine can prevent fructose-induced insulin resistance in rats - GMI Summary](#)

Pubmed Data : Toxicol Appl Pharmacol. 2006 Oct 1;216(1):11-9. Epub 2006 May 17. PMID: [18563319](#)

Article Published Date : Oct 01, 2006

Authors : Zhiqiang Gao, Sanhua Leng, Fuer Lu, Meijuan Xie, Lijun Xu, Kaifu Wang

Study Type : Animal Study

Additional Links

Substances : [Berberine : CK\(132\) : AC\(67\)](#)

Diseases : [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Liver Stress: Fructose-Induced : CK\(21\) : AC\(10\)](#)

[Berberine improves free-fatty-acid-induced insulin resistance. - GMI Summary](#)

Pubmed Data : Metabolism. 2009 Dec;58(12):1694-702. Epub 2009 Sep 19. PMID: [19767038](#)

Article Published Date : Dec 01, 2009

Authors : Yanfeng Chen, Ying Li, Yanwen Wang, Ying Wen, Changhao Sun

Study Type : Animal Study

Additional Links

Substances : [Berberine : CK\(132\) : AC\(67\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

[Berberine may have therapeutic value in those with high homocysteine by regulating liver cholesterol synthesis.](#) - GMI Summary

Pubmed Data : Am J Physiol Regul Integr Comp Physiol. 2010 Dec 22. Epub 2010 Dec 22. PMID: [21178122](#)

Article Published Date : Dec 22, 2010

Authors : Nan Wu, Lindsei K Sarna, Yaw L Siow, Karmin O

Study Type : Animal Study

Additional Links

Substances : [Berberine : CK\(132\) : AC\(67\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#), [High Homocysteine : CK\(306\) : AC\(56\)](#)

[Berberine may overcome insulin resistance via modulating key molecules in insulin signaling pathway, leading to increased glucose uptake in insulin-resistant cells.](#) - GMI Summary

Pubmed Data : Mol Cell Endocrinol. 2010 Apr 12;317(1-2):148-53. Epub 2009 Dec 29. PMID: [20036710](#)

Article Published Date : Apr 12, 2010

Authors : Li-Zhong Liu, Stanley C K Cheung, Lin-Lin Lan, Stanley K S Ho, Hong-Xi Xu, Juliana C N Chan, Peter C Y Tong

Study Type : In Vitro Study

Additional Links

Substances : [Berberine : CK\(132\) : AC\(67\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#)

[Berberine reduces insulin resistance through upregulation of insulin receptor expression.](#) - GMI Summary

Pubmed Data : Metabolism. 2009 Jan;58(1):109-19. PMID: [19059538](#)

Article Published Date : Jan 01, 2009

Authors : Wei-Jia Kong, Hao Zhang, Dan-Qing Song, Rong Xue, Wei Zhao, Jing Wei, Yue-Ming Wang, Ning Shan, Zhen-Xian Zhou, Peng Yang, Xue-Fu You, Zhuo-Rong Li, Shu-Yi Si, Li-Xun Zhao, Huai-Ning Pan, Jian-Dong Jiang

Study Type : Animal Study

Additional Links

Substances : [Berberine : CK\(132\) : AC\(67\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

Additional Keywords : [Insulin Receptor Upregulation : CK\(8\) : AC\(2\)](#)

[Polyphenols may have therapeutic value in a variety of diseases through modulating AMP-activated protein kinase which reduce fatty acid and cholesterol synthesis and gluconeogenesis.](#) - GMI Summary

Pubmed Data : N Biotechnol. 2009 Oct 1;26(1-2):17-22. Epub 2009 Apr 2. PMID: [19818314](#)

Article Published Date : Oct 01, 2009

Authors : Jin-Taek Hwang, Dae Young Kwon, Suk Hoo Yoon

Study Type : Commentary

Additional Links

Substances : [Berberine : CK\(132\) : AC\(67\)](#), [EGCG \(Epigallocatechin gallate\) : CK\(183\) : AC\(114\)](#), [Polyphenols : CK\(382\) : AC\(170\)](#), [Quercetin : CK\(265\) : AC\(134\)](#), [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [Diabetes Mellitus: Type 1 : CK\(743\) : AC\(207\)](#), [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#),

[Hypertension : CK\(1319\) : AC\(254\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Obesity : CK\(963\) : AC\(251\)](#)
Pharmacological Actions : [AMP-activated protein kinase modulation : CK\(2\) : AC\(2\)](#), [Gluconeogenesis Inhibitor : CK\(26\) : AC\(14\)](#)

Green Tea

[A multi-herbal product called Protandim prevents fibrosis and capillary loss and preserves right ventricular function in rats.](#) - GMI Summary

Pubmed Data : Circulation. 2009 Nov 17;120(20):1951-60. Epub 2009 Nov 2. PMID: [19884466](#)

Article Published Date : Nov 17, 2009

Authors : Harm J Bogaard, Ramesh Natarajan, Scott C Henderson, Carlin S Long, Donatas Kraskauskas, Lisa Smithson, Ramzi Ockaili, Joe M McCord, Norbert F Voelkel

Study Type : Animal Study

Additional Links

Substances : [Ashwagandha : CK\(136\) : AC\(61\)](#), [Bacopa : CK\(47\) : AC\(18\)](#), [Green Tea : CK\(732\) : AC\(272\)](#), [Milk Thistle : CK\(172\) : AC\(54\)](#), [Protandim : CK\(20\) : AC\(7\)](#), [Turmeric : CK\(2856\) : AC\(1514\)](#)

Diseases : [Heart Failure : CK\(452\) : AC\(85\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Hypertension: Pulmonary : CK\(108\) : AC\(34\)](#)

Pharmacological Actions : [Anti-Fibrotic : CK\(28\) : AC\(18\)](#), [Vascular Endothelial Growth Factor A Inhibitor : CK\(98\) : AC\(55\)](#)

[Green tea catechins may have a therapeutic role in the treatment of metabolic syndrome.](#) - GMI Summary

Pubmed Data : Phytochemistry. 2009 Jan;70(1):11-24. Epub 2009 Jan 13. PMID: [19147161](#)

Article Published Date : Jan 01, 2009

Authors : Frank Thielecke, Michael Boschmann

Study Type : Human Study

Additional Links

Substances : [EGCG \(Epigallocatechin gallate\) : CK\(183\) : AC\(114\)](#), [Green Tea : CK\(732\) : AC\(272\)](#)

Diseases : [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

[Green tea extract is safe and effective in reducing various physiological parameters associated with obesity in women.](#) - GMI Summary

Pubmed Data : Clin Nutr. 2008 Jun;27(3):363-70. Epub 2008 May 12. PMID: [18468736](#)

Article Published Date : Jun 01, 2008

Authors : Chung-Hua Hsu, Tung-Hu Tsai, Yung-Hsi Kao, Kung-Chang Hwang, Ting-Yu Tseng, Pesus Chou

Study Type : Human Study

Additional Links

Substances : [Green Tea : CK\(732\) : AC\(272\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Adiponectin: Low Levels : CK\(75\) : AC\(25\)](#), [Cholesterol: LDL/HDL ratio : CK\(287\) : AC\(52\)](#), [Ghrelin: Low Levels : CK\(5\) : AC\(1\)](#), [Obesity : CK\(963\) : AC\(251\)](#), [Triglycerides: Elevated : CK\(227\) : AC\(64\)](#)

Pharmacological Actions : [Hypolipidemic : CK\(282\) : AC\(75\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

[Green tea supplementation ameliorates insulin resistance and increases glucose transporter IV content in a fructose-fed rat model.](#) - GMI Summary

Pubmed Data : Eur J Nutr. 2004 Apr;43(2):116-24. Epub 2004 Jan 6. PMID: [15083319](#)

Article Published Date : Apr 01, 2004

Authors : Liang-Yi Wu, Chi-Chang Juan, Lucy Sun Hwang, Yung-Pei Hsu, Pei-Hsuan Ho, Low-Tone Ho

Study Type : Animal Study

Additional Links

Substances : [Green Tea](#) : CK(732) : AC(272)

Diseases : [Fructose-Induced Toxicity](#) : CK(129) : AC(41), [Insulin Resistance](#) : CK(707) : AC(184)

[**The consumption of high-catechin green tea leads to improvements in body composition and reduces abdominal fatness in moderately overweight Chinese subjects.**](#) - GMI

Summary

Pubmed Data : Obesity (Silver Spring). 2009 Aug 13. Epub 2009 Aug 13. PMID: [19680234](#)

Article Published Date : Aug 13, 2009

Authors : Hongqiang Wang, Yibo Wen, Yaping Du, Xiuyuan Yan, Hongwei Guo, Jane A Rycroft, Niels Boon, Eva M R Kovacs, David J Mela

Study Type : Human Study

Additional Links

Substances : [Catechin](#) : CK(314) : AC(124), [Green Tea](#) : CK(732) : AC(272)

Diseases : [Abdominal Obesity \(Midsection Fat\)](#) : CK(227) : AC(47)

Monosodium Glutamate (MSG)

[**Dietary monosodium glutamate increases weight gain and adiposity, and reduces insulin sensitivity in an animal model.**](#) - GMI Summary

Pubmed Data : Br J Nutr. 2011 Mar 24:1-10. Epub 2011 Mar 24. PMID: [21429276](#)

Article Published Date : Mar 24, 2011

Authors : Kate S Collison, Marya Z Zaidi, Soad M Saleh, Angela Inglis, Rhea Mondreal, Nadine J Makhoul, Razan Bakheet, Joey Burrows, Norton W Milgram, Futwan A Al-Mohanna

Study Type : Animal Study

Additional Links

Diseases : [Abdominal Obesity \(Midsection Fat\)](#) : CK(227) : AC(47), [Diabetes Mellitus: Type 2](#) : CK(2227) : AC(301), [Insulin Resistance](#) : CK(707) : AC(184), [Obesity](#) : CK(963) : AC(251), [Overweight](#) : CK(367) : AC(82)

Problem Substances : [Monosodium Glutamate \(MSG\)](#) : CK(39) : AC(12)

Other : [Obesogenic](#) : CK(16) : AC(4)

[**High Fructose Corn Syrup may promote hepatic steatosis, whereas dietary Monosodium Glutamate \(MSG\) induces dyslipidemia and markers of insulin resistance.**](#) - GMI Summary

Pubmed Data : Obesity (Silver Spring). 2010 Jan 28. Epub 2010 Jan 28. PMID: [20111022](#)

Article Published Date : Jan 28, 2010

Authors : Kate S Collison, Zakia M Maqbool, Angela L Inglis, Nadine J Makhoul, Soad M Saleh, Razan H Bakheet, Mohammed A Al-Johi, Rana K Al-Rabiah, Marya Z Zaidi, Futwan A Al-Mohanna

Study Type : Animal Study

Additional Links

Diseases : [Dyslipidemias](#) : CK(157) : AC(29), [Fatty Liver](#) : CK(449) : AC(109), [Insulin Resistance](#) : CK(707) : AC(184)

Problem Substances : [High Fructose Corn Syrup](#) : CK(47) : AC(9), [Monosodium Glutamate \(MSG\)](#) : CK(39) : AC(12)

[Monosodium glutamate is used to induce insulin resistance and obesity in an animal model.](#) - GMI Summary

Pubmed Data : Lipids Health Dis. 2011;10:66. Epub 2011 Apr 28. PMID: [21526994](#)

Article Published Date : Jan 01, 2011

Authors : Ricardo K Yamazaki, Gleisson A P Brito, Isabela Coelho, Danielle C T Pequitto, Adriana A Yamaguchi, Gina Borghetti, Dalton Luiz Schiessel, Marcelo Kryczyk, Juliano Machado, Ricelli E R Rocha, Julia Aikawa, Fabiola Iagher, Katya Naliwaiko, Ricardo A Tanhoffer, Everson A Nunes, Luiz Claudio Fernandes

Study Type : Animal Study

Additional Links

Diseases : [Insulin Resistance](#) : CK(707) : AC(184), [Obesity](#) : CK(963) : AC(251)

Problem Substances : [Monosodium Glutamate \(MSG\)](#) : CK(39) : AC(12)

Other : [Endocrine Disruptor](#) : CK(283) : AC(56)

[Monosodium glutamate is used to induce metabolic syndrome in a rat model.](#) - GMI Summary

Pubmed Data : Eur J Pharmacol. 2011 Jul 15;662(1-3):1-8. Epub 2011 May 1. PMID: [21549692](#)

Article Published Date : Jul 15, 2011

Authors : Yoshiyuki Sasaki, Tsutomu Shimada, Seiichi Iizuka, Wataru Suzuki, Hiroko Makihara, Ryutaro Teraoka, Koichi Tsuneyama, Ryoji Hokao, Masaki Aburada

Study Type : Animal Study

Additional Links

Diseases : [Diabetes Mellitus: Type 2](#) : CK(2227) : AC(301), [Hyperlipidemia](#) : CK(403) : AC(105), [Metabolic Syndrome X](#) : CK(376) : AC(97), [Obesity](#) : CK(963) : AC(251)

Problem Substances : [Monosodium Glutamate \(MSG\)](#) : CK(39) : AC(12)

Other : [Endocrine Disruptor](#) : CK(283) : AC(56)

Vitamin D

[Blood 25-hydroxyvitamin D concentration is inversely associated with hypertension.](#) - GMI Summary

Pubmed Data : J Hypertens. 2011 Apr;29(4):636-45. PMID: [21191311](#)

Article Published Date : Apr 01, 2011

Authors : Ann Burgaz, Nicola Orsini, Susanna C Larsson, Alicja Wolk

Study Type : Meta Analysis

Additional Links

Substances : [Vitamin D](#) : CK(976) : AC(213)

Diseases : [Hypertension](#) : CK(1319) : AC(254)

[Both high and low concentrations of plasma 25\(OH\)D are associated with elevated risks of overall and cancer mortality. Low concentrations are associated with cardiovascular mortality.](#) - GMI Summary

Pubmed Data : Am J Clin Nutr. 2010 Oct;92(4):841-8. Epub 2010 Aug 18. PMID: [20720256](#)

Article Published Date : Oct 01, 2010

Authors : Karl Michaëlsson, John A Baron, Greta Snellman, Rolf Gedeberg, Liisa Byberg, Johan Sundström, Lars Berglund, Johan Arnlöv, Per Hellman, Rune Blomhoff, Alicja Wolk, Hans Garmo, Lars Holmberg, Håkan Melhus

Study Type : Human Study

Additional Links

Substances : [Vitamin D : CK\(976\) : AC\(213\)](#)

Diseases : [Cardiac mortality : CK\(509\) : AC\(63\)](#), [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [Elderly: Age Specific Diseases : CK\(277\) : AC\(32\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Mortality: All-Cause : CK\(418\) : AC\(46\)](#)

Additional Keywords : [Too Much Vitamin D : CK\(10\) : AC\(1\)](#)

[Plasma vitamin D levels are inversely and independently associated with the risk of developing hypertension in young women.](#) - GMI Summary

Pubmed Data : Hypertension. 2008 Nov;52(5):828-32. Epub 2008 Oct 6. PMID: [18838623](#)

Article Published Date : Nov 01, 2008

Authors : John P Forman, Gary C Curhan, Eric N Taylor

Study Type : Human Study

Additional Links

Substances : [Vitamin D : CK\(976\) : AC\(213\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Additional Keywords : [Risk Reduction : CK\(1065\) : AC\(195\)](#)

[The combination of vitamin D with genistein results in an enhanced inhibition of lipid accumulation and induction of programmed cell death in maturing preadipocytes \(immature fat cells\).](#) - GMI Summary

Pubmed Data : Life Sci. 2002 Oct 4;71(20):2383-90. PMID: [18239559](#)

Article Published Date : Oct 04, 2002

Authors : Srujana Rayalam, Mary Anne Della-Fera, Suresh Ambati, Jeong-Yeh Yang, Hea Jin Park, Clifton A Baile

Study Type : In Vitro Study

Additional Links

Substances : [Genistein : CK\(395\) : AC\(169\)](#), [Vitamin D : CK\(976\) : AC\(213\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Pharmacological Actions : [Anti-Adipogenic : CK\(79\) : AC\(38\)](#), [Apoptotic : CK\(1423\) : AC\(1028\)](#)

Additional Keywords : [Natural Substance Synergy : CK\(129\) : AC\(74\)](#)

[Vitamin D deficiency may contribute to insulin resistance.](#) - GMI Summary

Pubmed Data : Nutr Res Rev. 2009 Jun;22(1):82-92. PMID: [19555519](#)

Article Published Date : Jun 01, 2009

Authors : Dorothy Teegarden, Shawn S Donkin

Study Type : Review

Additional Links

Substances : [Vitamin D : CK\(976\) : AC\(213\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#)

[Vitamin D deficiency is associated with insulin resistance and beta cell dysfunction.](#) - GMI Summary

Pubmed Data : Mol Cancer Ther. 2008 Oct;7(10):3318-29. PMID: [15113720](#)

Article Published Date : Oct 01, 2008

Authors : Ken C Chiu, Audrey Chu, Vay Liang W Go, Mohammed F Saad

Study Type : Commentary

Additional Links

Substances : [Vitamin D : CK\(976\) : AC\(213\)](#)

Diseases : [Diabetes Mellitus: Type 1 : CK\(743\) : AC\(207\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

[Vitamin D deficiency is associated with obesity in African-American adolescents and may promote insulin resistance.](#) - GMI Summary

Pubmed Data : J Clin Endocrinol Metab. 2009 Sep;94(9):3200-6. Epub 2009 Jun 23. PMID: [19549742](#)

Article Published Date : Sep 01, 2009

Authors : Ambika Ashraf, Jessica Alvarez, Karen Saenz, Barbara Gower, Kenneth McCormick, Frank Franklin

Study Type : Human Study

Additional Links

Substances : [Vitamin D : CK\(976\) : AC\(213\)](#)

Diseases : [African-American Specific Deficiencies/Diseases : CK\(100\) : AC\(18\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

[Vitamin D deficiency may contribute to arterial hypertension.](#) - GMI Summary

Pubmed Data : Expert Rev Cardiovasc Ther. 2010 Nov;8(11):1599-608. PMID: [21090935](#)

Article Published Date : Nov 01, 2010

Authors : Stefan Pilz, Andreas Tomaschitz

Study Type : Commentary

Additional Links

Substances : [Vitamin D : CK\(976\) : AC\(213\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#), [Hypertension: Arterial : CK\(1\) : AC\(1\)](#)

[Vitamin D deficiency may contribute to the development of arterial hypertension.](#) - GMI Summary

Pubmed Data : Nat Rev Cardiol. 2009 Oct;6(10):621-30. Epub 2009 Aug 18. PMID: [19687790](#)

Article Published Date : Oct 01, 2009

Authors : Stefan Pilz, Andreas Tomaschitz, Eberhard Ritz, Thomas R Pieber

Study Type : Review

Additional Links

Substances : [Vitamin D : CK\(976\) : AC\(213\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Antihypertensive Agents : CK\(158\) : AC\(35\)](#)

[Vitamin D improves free fatty-acid-induced insulin resistance.](#) - GMI Summary

Pubmed Data : Cytotechnology. 2009 Apr;59(3):211-7. Epub 2009 Sep 17. PMID: [18551686](#)

Article Published Date : Apr 01, 2009

Authors : Qiu Gen Zhou, Fan Fan Hou, Zhi Jian Guo, Min Liang, Guo Bao Wang, Xun Zhang

Study Type : In Vitro Study

Additional Links

Substances : [Vitamin D : CK\(976\) : AC\(213\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#)

[Vitamin D levels are significantly inversely associated with blood pressure in Hispanic and African-Americans.](#) - GMI Summary

Pubmed Data : Am J Hypertens. 2009 Aug;22(8):867-70. Epub 2009 May 14. PMID: [19444222](#)

Article Published Date : Aug 01, 2009

Authors : Kimberly J Schmitz, Halcyon G Skinner, Leonelo E Bautista, Tasha E Fingerlin, Carl D Langefeld, Pamela J Hicks, Steven M Haffner, Michael Bryer-Ash, Lynne E Wagenknecht, Donald W Bowden, Jill M Norris, Corinne D Engelman

Study Type : Human Study

Additional Links

Substances : [Vitamin D : CK\(976\) : AC\(213\)](#)

Diseases : [African-American Specific Deficiencies/Diseases : CK\(100\) : AC\(18\)](#), [Hispanic-American Specific Deficiencies/Diseases : CK\(15\) : AC\(3\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

[Vitamin D supplementation may reduce systolic blood pressure.](#) - GMI Summary

Pubmed Data : South Med J. 2010 Aug;103(8):729-37. PMID: [20622727](#)

Article Published Date : Aug 01, 2010

Authors : Sheng Hui Wu, Suzanne C Ho, Liu Zhong

Study Type : Meta Analysis

Additional Links

Substances : [Vitamin D : CK\(976\) : AC\(213\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

[Vitamin D3 supplementation improves insulin sensitivity in obese men.](#) - GMI Summary

Pubmed Data : Diabet Med. 2009 Jan;26(1):19-27. PMID: [19125756](#)

Article Published Date : Jan 01, 2009

Authors : J Nagpal, J N Pande, A Bhartia

Study Type : Human Study

Additional Links

Substances : [Vitamin D : CK\(976\) : AC\(213\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Cocoa

[Cocoa extract possesses potential hypoglycaemic and hypocholesterolemic effects in diabetic rats.](#) - GMI Summary

Pubmed Data : J Ethnopharmacol. 2005 Apr 8;98(1-2):55-60. PMID: [15763363](#)

Article Published Date : Apr 08, 2005

Authors : A Ruzaidi, I Amin, A G Nawalyah, M Hamid, H A Faizul

Study Type : Animal Study

Additional Links

Substances : [Cocoa : CK\(192\) : AC\(43\)](#)

Diseases : [Diabetes Mellitus: Type 1 : CK\(743\) : AC\(207\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hyperglycemia : CK\(145\) : AC\(47\)](#)

Pharmacological Actions : [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#), [Hypolipidemic : CK\(282\) : AC\(75\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

[Cocoa flavanol consumption facilitates vasodilation and attenuates exercise-induced increases in blood pressure.](#) - GMI Summary

Pubmed Data : Br J Nutr. 2010 May;103(10):1480-4. Epub 2010 Jan 19. PMID: [20082737](#)

Article Published Date : May 01, 2010

Authors : Narelle M Berry, Kade Davison, Alison M Coates, Jonathan D Buckley, Peter R C Howe

Study Type : Human Study

Additional Links

Substances : [Cocoa : CK\(192\) : AC\(43\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Vasodilator Agents : CK\(223\) : AC\(50\)](#)

[Cocoa products have blood-pressure lowering capacity.](#) - GMI Summary

Pubmed Data : Am J Hypertens. 2010 Jan;23(1):97-103. Epub 2009 Nov 12. PMID: [19910929](#)

Article Published Date : Jan 01, 2010

Authors : Steffen Desch, Johanna Schmidt, Daniela Kobler, Melanie Sonnabend, Ingo Eitel, Mahdi Sareban, Kazem Rahimi, Gerhard Schuler, Holger Thiele

Study Type : Meta Analysis

Additional Links

Substances : [Cocoa : CK\(192\) : AC\(43\)](#), [Flavonoids : CK\(732\) : AC\(287\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Hypotensive : CK\(239\) : AC\(45\)](#)

[Cocoa reduces blood pressure and insulin resistance and improves endothelium-dependent vasodilation in hypertensives.](#) - GMI Summary

Pubmed Data : Hypertension. 2005 Aug;46(2):398-405. Epub 2005 Jul 18. PMID: [16027246](#)

Article Published Date : Aug 01, 2005

Authors : Davide Grassi, Stefano Necozione, Cristina Lippi, Giuseppe Croce, Letizia Valeri, Paolo Pasqualetti, Giovambattista Desideri, Jeffrey B Blumberg, Claudio Ferri

Study Type : Human Study

Additional Links

Substances : [Cocoa : CK\(192\) : AC\(43\)](#)

Diseases : [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

[Dark chocolate consumption may be associated with a reduction in blood pressure.](#) - GMI Summary

Pubmed Data : Am J Hypertens. 2010 Jun;23(6):694-700. Epub 2010 Mar 4. PMID: [20203627](#)

Article Published Date : Jun 01, 2010

Authors : Steffen Desch, Daniela Kobler, Johanna Schmidt, Melanie Sonnabend, Volker Adams, Mahdi Sareban, Ingo Eitel, Matthias Blüher, Gerhard Schuler, Holger Thiele

Study Type : Human Study

Additional Links

Substances : [Cocoa : CK\(192\) : AC\(43\)](#)

Diseases : [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

[Dark chocolate is superior to placebo in reducing systolic hypertension or diastolic prehypertension.](#) - GMI Summary

Pubmed Data : BMC Med. 2010;8:39. Epub 2010 Jun 28. PMID: [20584271](#)

Article Published Date : Jan 01, 2010

Authors : Karin Ried, Thomas Sullivan, Peter Fakler, Oliver R Frank, Nigel P Stocks

Study Type : Meta Analysis

Additional Links

Substances : [Cocoa : CK\(192\) : AC\(43\)](#), [Flavonoids : CK\(732\) : AC\(287\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#), [Prehypertension : CK\(23\) : AC\(3\)](#)

Pharmacological Actions : [Hypotensive : CK\(239\) : AC\(45\)](#)

[Regular consumption of chocolate bars containing plant sterols and cocoa flavanols as part of a low-fat diet may support cardiovascular health by lowering cholesterol and improving blood pressure.](#) - GMI Summary

Pubmed Data : J Med Food. 2007 Mar;10(1):134-42. PMID: [18356327](#)

Article Published Date : Mar 01, 2007

Authors : Robin R Allen, LeaAnn Carson, Catherine Kwik-Uribe, Ellen M Evans, John W Erdman

Study Type : Human Study

Additional Links

Substances : [Cocoa : CK\(192\) : AC\(43\)](#)

Diseases : [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

[Short-term cocoa consumption significantly reduces blood cholesterol.](#) - GMI Summary

Pubmed Data : Am J Clin Nutr. 2010 Jul;92(1):218-25. Epub 2010 May 26. PMID: [20504978](#)

Article Published Date : Jul 01, 2010

Authors : Lei Jia, Xuan Liu, Yong Yi Bai, Shao Hua Li, Kai Sun, Chen He, Rutai Hui

Study Type : Human Study

Additional Links

Substances : [Cocoa : CK\(192\) : AC\(43\)](#), [Flavonoids : CK\(732\) : AC\(287\)](#), [Polyphenols : CK\(382\) : AC\(170\)](#)

Diseases : [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Anticholesteremic Agents : CK\(180\) : AC\(38\)](#)

[The high intake of flavanol-rich cocoa by the Kuna Indians may be responsible for their low blood pressure.](#) - GMI Summary

Pubmed Data : J Cardiovasc Pharmacol. 2006;47 Suppl 2:S103-9; discussion 119-21. PMID: [16794446](#)

Article Published Date : Jan 01, 2006

Authors : Marjorie L McCullough, Kati Chevaux, Lilian Jackson, Mack Preston, Gregorio Martinez, Harold H Schmitz, Caroline Coletti, Hannia Campos, Norman K Hollenberg

Study Type : Human Study

Additional Links

Substances : [Catechin : CK\(314\) : AC\(124\)](#), [Cocoa : CK\(192\) : AC\(43\)](#), [Flavonoids : CK\(732\) : AC\(287\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Additional Keywords : [Proanthocyanidins : CK\(129\) : AC\(45\)](#)

[The regular consumption of cocoa products containing flavanols may reduce risk of cardiovascular disease.](#) - GMI Summary

Pubmed Data : Asia Pac J Clin Nutr. 2008;17 Suppl 1:284-7. PMID: [18296357](#)

Article Published Date : Jan 01, 2008

Authors : John W Erdman, LeaAnn Carson, Catherine Kwik-Uribe, Ellen M Evans, Robin R Allen

Study Type : Human Study

Additional Links

Substances : [Cocoa](#) : CK(192) : AC(43), [Flavonoids](#) : CK(732) : AC(287)

Diseases : [Cardiovascular Diseases](#) : CK(3633) : AC(602), [Endothelial Dysfunction](#) : CK(649) : AC(164), [Hypertension](#) : CK(1319) : AC(254)

Additional Keywords : [Risk Reduction](#) : CK(1065) : AC(195)

Polychlorinated biphenyls (PCBs)

[Exposure to low-dose persistent organic pollutants appears to contribute to development of obesity, dyslipidemia, and insulin resistance.](#) - GMI Summary

Pubmed Data : PLoS One. 2011;6(1):e15977. Epub 2011 Jan 26. PMID: [21298090](#)

Article Published Date : Jan 01, 2011

Authors : Duk-Hee Lee, Michael W Steffes, Andreas Sjödin, Richard S Jones, Larry L Needham, David R Jacobs

Study Type : Human Study

Additional Links

Diseases : [Dyslipidemias](#) : CK(157) : AC(29), [Insulin Resistance](#) : CK(707) : AC(184), [Obesity](#) : CK(963) : AC(251)

Problem Substances : [Organochlorine pesticides](#) : CK(162) : AC(26), [Persistent organic pollutants \(POPs\)](#) : CK(68) : AC(11), [Polychlorinated biphenyls \(PCBs\)](#) : CK(142) : AC(23)

Other : [Endocrine Disruptor](#) : CK(283) : AC(56), [Endocrine Disruptor: Insulin Resistance](#) : CK(50) : AC(18)

[Serum concentrations of PCBs, especially those congeners with multiple ortho chlorines, were strongly associated with both systolic and diastolic blood pressure.](#) - GMI Summary

Pubmed Data : Environ Health Perspect. 2011 Mar ;119(3):319-25. PMID: [21362590](#)

Article Published Date : Mar 01, 2011

Authors : Alexey Goncharov, Marian Pavuk, Herman R Foushee, David O Carpenter

Study Type : Meta Analysis

Additional Links

Diseases : [Hypertension](#) : CK(1319) : AC(254)

Problem Substances : [Organochlorine compounds](#) : CK(81) : AC(13), [Organochlorine pesticides](#) : CK(162) : AC(26), [Pesticides](#) : CK(441) : AC(37), [Polychlorinated biphenyls \(PCBs\)](#) : CK(142) : AC(23)

Other : [Hypertensive](#) : CK(68) : AC(9)

Beta-glucan

[Concentrated oat beta-glucan, a fermentable fiber, lowers serum cholesterol in hypercholesterolemic adults.](#) - GMI Summary

Pubmed Data : Nutr J. 2007;6:6. Epub 2007 Mar 26. PMID: [17386092](#)

Article Published Date : Jan 01, 2007

Authors : Katie M Queenan, Maria L Stewart, Kristen N Smith, William Thomas, R Gary Fulcher, Joanne L Slavin

Study Type : Human Study

Additional Links

Substances : [Beta-glucan](#) : CK(179) : AC(41), [Fiber](#) : CK(381) : AC(71), [Oats](#) : CK(168) : AC(45)

Diseases : [Cholesterol: LDL/HDL ratio](#) : CK(287) : AC(52), [High Cholesterol](#) : CK(865) : AC(192), [Hypercholesterolemia](#) : CK(692) : AC(159), [Hypertension](#) : CK(1319) : AC(254)

Pharmacological Actions : [Hypolipidemic](#) : CK(282) : AC(75)

[Increased barley consumption \(high beta-glucan content\) improves blood lipid profiles and lowers visceral fat.](#) - GMI Summary

Pubmed Data : Plant Foods Hum Nutr. 2008 Mar;63(1):21-5. Epub 2007 Dec 12. PMID: [18074229](#)

Article Published Date : Mar 01, 2008

Authors : Chikako Shimizu, Makoto Kihara, Seiichiro Aoe, Shigeki Araki, Kazutoshi Ito, Katsuhiko Hayashi, Junji Watari, Yukikuni Sakata, Sachie Ikegami

Study Type : Human Study

Additional Links

Substances : [Barley](#) : CK(24) : AC(5), [Beta-glucan](#) : CK(179) : AC(41)

Diseases : [Abdominal Obesity \(Midsection Fat\)](#) : CK(227) : AC(47), [Hyperlipidemia](#) : CK(403) : AC(105)

[Oat-containing cereal lowers total cholesterol in Hispanic americans.](#) - GMI Summary

Pubmed Data : J Am Diet Assoc. 2005 Jun;105(6):967-70. PMID: [15942550](#)

Article Published Date : Jun 01, 2005

Authors : Wahida Karmally, Maria G Montez, Walter Palmas, Wendy Martinez, Anita Branstetter, Rajasekhar Ramakrishnan, Steve F Holleran, Steven M Haffner, Henry N Ginsberg

Study Type : Human Study

Additional Links

Substances : [Beta-glucan](#) : CK(179) : AC(41), [Oats](#) : CK(168) : AC(45)

Diseases : [Cholesterol: LDL/HDL ratio](#) : CK(287) : AC(52), [High Cholesterol](#) : CK(865) : AC(192)

Pharmacological Actions : [Anticholesteremic Agents](#) : CK(180) : AC(38)

[Oat-derived beta-glucan significantly improves HDLC and diminishes LDLC and non-HDL cholesterol in overweight individuals with mild hypercholesterolemia.](#) - GMI Summary

Pubmed Data : Am J Ther. 2007 Mar-Apr;14(2):203-12. PMID: [17414591](#)

Article Published Date : Mar 01, 2007

Authors : Nadia Reyna-Villasmil, Valmore Bermúdez-Pirela, Edgardo Mengual-Moreno, Nelly Arias, Clímaco Cano-Ponce, Elliuz Leal-Gonzalez, Aida Souki, George E Inglett, Zafar H Israili, Rafael Hernández-Hernández, Manuel Valasco, Naikt Arraiz

Study Type : Human Study

Additional Links

Substances : [Beta-glucan](#) : CK(179) : AC(41), [Oats](#) : CK(168) : AC(45)

Diseases : [HDL: Low](#) : CK(195) : AC(48), [High Cholesterol](#) : CK(865) : AC(192), [Hypercholesterolemia](#) : CK(692) : AC(159), [Hypertension](#) : CK(1319) : AC(254)

Pharmacological Actions : [Hypolipidemic](#) : CK(282) : AC(75)

[Oats are unique among the cereal grains in respect to its many therapeutic properties.](#) - GMI Summary

Pubmed Data : Eur J Nutr. 2008 Mar;47(2):68-79. Epub 2008 Feb 26. PMID: [18301937](#)

Article Published Date : Mar 01, 2008

Authors : Masood Sadiq Butt, Muhammad Tahir-Nadeem, Muhammad Kashif Iqbal Khan, Rabia Shabir, Mehmood S Butt

Study Type : Review

Additional Links

Substances : [Beta-glucan](#) : CK(179) : AC(41), [Fiber](#) : CK(381) : AC(71), [Oats](#) : CK(168) : AC(45)

Diseases : [Celiac Disease](#) : CK(860) : AC(134), [Diabetes Mellitus: Type 2](#) : CK(2227) : AC(301), [High Cholesterol](#) :

[The LDL-cholesterol lowering effect of oat beta-glucan depends on molecular weight \(size\).](#)

- GMI Summary

Pubmed Data : Am J Clin Nutr. 2010 Oct;92(4):723-32. Epub 2010 Jul 21. PMID: [20660224](#)

Article Published Date : Oct 01, 2010

Authors : Thomas M S Wolever, Susan M Tosh, Alison L Gibbs, Jennie Brand-Miller, Alison M Duncan, Valerie Hart, Benoît Lamarche, Barbara A Thomson, Ruedi Duss, Peter J Wood

Study Type : Human Study

Additional Links

Substances : [Beta-glucan : CK\(179\) : AC\(41\)](#), [Fiber : CK\(381\) : AC\(71\)](#), [Oats : CK\(168\) : AC\(45\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Anticholesteremic Agents : CK\(180\) : AC\(38\)](#)

Persistent organic pollutants (POPs)

[Exposure to low-dose persistent organic pollutants appears to contribute to development of obesity, dyslipidemia, and insulin resistance.](#) - GMI Summary

Pubmed Data : PLoS One. 2011;6(1):e15977. Epub 2011 Jan 26. PMID: [21298090](#)

Article Published Date : Jan 01, 2011

Authors : Duk-Hee Lee, Michael W Steffes, Andreas Sjödin, Richard S Jones, Larry L Needham, David R Jacobs

Study Type : Human Study

Additional Links

Diseases : [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Problem Substances : [Organochlorine pesticides : CK\(162\) : AC\(26\)](#), [Persistent organic pollutants \(POPs\) : CK\(68\) : AC\(11\)](#), [Polychlorinated biphenyls \(PCBs\) : CK\(142\) : AC\(23\)](#)

Other : [Endocrine Disruptor : CK\(283\) : AC\(56\)](#), [Endocrine Disruptor: Insulin Resistance : CK\(50\) : AC\(18\)](#)

[Persistent organic pollutant exposure leads to insulin resistance syndrome.](#) - GMI Summary

Pubmed Data : Environ Health Perspect. 2010 Apr;118(4):465-71. Epub 2009 Nov 19. PMID: [20064776](#)

Article Published Date : Apr 01, 2010

Authors : Jérôme Ruzzin, Rasmus Petersen, Emmanuelle Meugnier, Lise Madsen, Erik-Jan Lock, Haldis Lillefosse, Tao Ma, Sandra Pesenti, Si Brask Sonne, Troels Torben Marstrand, Marian Kjelleveold Malde, Zhen-Yu Du, Carine Chavey, Lluís Fajas, Anne-Katrine Lundebye, Christian Lehn Brand, Hubert Vidal, Karsten Kristiansen, Livar Frøyland

Study Type : Review

Additional Links

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Problem Substances : [Persistent organic pollutants \(POPs\) : CK\(68\) : AC\(11\)](#)

[There is a relationship between serum concentrations of persistent organic pollutants and the prevalence of metabolic syndrome among non-diabetic adults.](#) - GMI Summary

Pubmed Data : Diabetologia. 2007 Sep;50(9):1841-51. Epub 2007 Jul 12. PMID: [17624515](#)

Article Published Date : Sep 01, 2007

Authors : D-H Lee, I-K Lee, M Porta, M Steffes, D R Jacobs

Study Type : Human Study

Additional Links

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Problem Substances : [Organochlorine pesticides : CK\(162\) : AC\(26\)](#), [Persistent organic pollutants \(POPs\) : CK\(68\) : AC\(11\)](#)

5-methyltetrahydrofolate (MTHF)

[High-dose short-term folate administration modifies ambulatory blood pressure in postmenopausal women.](#) - GMI Summary

Pubmed Data : Eur J Clin Nutr. 2009 Oct;63(10):1266-8. Epub 2009 Jul 15. PMID: [19603054](#)

Article Published Date : Oct 01, 2009

Authors : A Cagnacci, M Cannoletta, A Volpe

Study Type : Human Study

Additional Links

Substances : [5-methyltetrahydrofolate \(MTHF\) : CK\(43\) : AC\(5\)](#)

Diseases : [Aging : CK\(1231\) : AC\(350\)](#), [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [High Homocysteine : CK\(306\) : AC\(56\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Postmenopausal Disorders : CK\(219\) : AC\(35\)](#)

Pharmacological Actions : [Hypotensive : CK\(239\) : AC\(45\)](#)

Soy

[A Korean fermented red pepper plus soybean paste, improves glucose homeostasis by reducing insulin resistance in 90% pancreatectomized diabetic rats.](#) - GMI Summary

Pubmed Data : Nutrition. 2009 Jul-Aug;25(7-8):790-9. Epub 2009 Feb 28. PMID: [19251395](#)

Article Published Date : Jul 01, 2009

Authors : Dae Young Kwon, Sang Mee Hong, Il Sung Ahn, Young Suk Kim, Dong Wha Shin, Sunmin Park

Study Type : Animal Study

Additional Links

Substances : [Fermented Foods and Beverages : CK\(528\) : AC\(127\)](#), [Soy : CK\(1229\) : AC\(332\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#)

[Glyceollins, one of the phytoalexins derived from soybeans under fungal stress, enhance insulin sensitivity and exert insulinotropic actions.](#) - GMI Summary

Pubmed Data : J Agric Food Chem. 2010 Feb 10;58(3):1551-7. PMID: [20067288](#)

Article Published Date : Feb 10, 2010

Authors : Sunmin Park, Il Sung Ahn, Jeong Hwan Kim, Mee Ryung Lee, Jong Sang Kim, Hyo Jung Kim

Study Type : In Vitro Study

Additional Links

Substances : [Glyceollins : CK\(1\) : AC\(1\)](#), [Phytoalexins : CK\(1\) : AC\(1\)](#), [Soy : CK\(1229\) : AC\(332\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Glucagon Like peptide 1 \(GLP-1\) Up-regulation : CK\(129\) : AC\(30\)](#), [Insulin Sensitizers : CK\(87\) : AC\(16\)](#), [Insulinotropic : CK\(15\) : AC\(7\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

[Isoflavonoids and peptides from meju, long-term fermented soybeans, increase insulin](#)

[sensitivity and exert insulinotropic effects in vitro.](#) - GMI Summary

Pubmed Data : Nutrition. 2011 Feb;27(2):244-52. Epub 2010 Jun 11. PMID: [20541368](#)

Article Published Date : Feb 01, 2011

Authors : Dae Young Kwon, Sang Mee Hong, Il Sung Ahn, Min Jung Kim, Hye Jeong Yang, Sunmin Park

Study Type : In Vitro Study

Additional Links

Substances : [Daidzein : CK\(76\) : AC\(27\)](#), [Genistein : CK\(395\) : AC\(169\)](#), [Isoflavones : CK\(428\) : AC\(122\)](#), [Soy : CK\(1229\) : AC\(332\)](#), [Soy: Fermented : CK\(69\) : AC\(23\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Pharmacological Actions : [Glucagon Like peptide 1 \(GLP-1\) Up-regulation : CK\(129\) : AC\(30\)](#), [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#), [Insulinotrophic : CK\(15\) : AC\(7\)](#)

[Soy consumption improve markers of inflammation, and endothelial function in postmenopausal women.](#) - GMI Summary

Pubmed Data : Diabetes Care. 2007 Apr;30(4):967-73. PMID: [17392557](#)

Article Published Date : Apr 01, 2007

Authors : Leila Azadbakht, Masoud Kimiagar, Yadollah Mehrabi, Ahmad Esmailzadeh, Frank B Hu, Walter C Willett

Study Type : Human Study

Additional Links

Substances : [Soy : CK\(1229\) : AC\(332\)](#)

Diseases : [C-Reactive Protein : CK\(425\) : AC\(72\)](#), [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Inflammation : CK\(829\) : AC\(330\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

[Soy inclusion in the diet improves features of the metabolic syndrome in postmenopausal women.](#) - GMI Summary

Pubmed Data : Am J Clin Nutr. 2007 Mar;85(3):735-41. PMID: [17344494](#)

Article Published Date : Mar 01, 2007

Authors : Leila Azadbakht, Masoud Kimiagar, Yadollah Mehrabi, Ahmad Esmailzadeh, Mojgan Padyab, Frank B Hu, Walter C Willett

Study Type : Human Study

Additional Links

Substances : [Soy : CK\(1229\) : AC\(332\)](#)

Diseases : [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

[Soy isoflavone may ameliorate insulin sensitivity by decreasing visceral adipose deposition and adjusting low-grade inflammatory molecules derived from white adipose tissue.](#) - GMI Summary

Pubmed Data : Life Sci. 2003 Sep 5;73(16):2127-36. PMID: [17062358](#)

Article Published Date : Sep 05, 2003

Authors : Shi-wei Chen, Li-shi Zhang, Hong-Min Zhang, Xiao-fan Feng

Study Type : Animal Study

Additional Links

Substances : [Isoflavones : CK\(428\) : AC\(122\)](#), [Soy : CK\(1229\) : AC\(332\)](#)

Diseases : [Adiponectin: Low Levels : CK\(75\) : AC\(25\)](#), [C-Reactive Protein : CK\(425\) : AC\(72\)](#), [Inflammation : CK\(829\) : AC\(330\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Tumor Necrosis Factor \(TNF\) Alpha Inhibitor : CK\(858\) : AC\(330\)](#)

[Soy isoflavones improve endothelial function in spontaneously hypertensive rats.](#) - GMI Summary

Pubmed Data : Pharmacology. 2003 Jun;68(2):81-8. PMID: [15958720](#)

Article Published Date : Jun 01, 2003

Authors : Rocío Vera, Milagros Galisteo, Inmaculada Concepción Villar, Manuel Sánchez, Antonio Zarzuelo, Francisco Pérez-Vizcaíno, Juan Duarte

Study Type : Animal Study

Additional Links

Substances : [Genistein : CK\(395\) : AC\(169\)](#), [Isoflavones : CK\(428\) : AC\(122\)](#), [Soy : CK\(1229\) : AC\(332\)](#)

Diseases : [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Nitric Oxide Enhancer : CK\(126\) : AC\(32\)](#)

[The combination of stevioside and soy supplementation appears to possess the potential as effective treatment of a number of the characteristic features of the metabolic syndrome.](#)

- GMI Summary

Pubmed Data : Metabolism. 2005 Sep;54(9):1181-8. PMID: [16125530](#)

Article Published Date : Sep 01, 2005

Authors : Stig Eric Underbjerg Dyrskog, Per Bendix Jeppesen, Michele Colombo, Reziwanggu Abudula, Kjeld Hermansen

Study Type : Animal Study

Additional Links

Substances : [Soy : CK\(1229\) : AC\(332\)](#), [Stevia : CK\(65\) : AC\(19\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Lignans

[A lignan rich diet reduces body mass index, abdominal fat and insulin resistance in post-menopausal women.](#) - GMI Summary

Pubmed Data : Mutat Res. 2001 Sep 1;480-481:201-7. PMID: [19586570](#)

Article Published Date : Sep 01, 2001

Authors : Anne-Sophie Morisset, Simone Lemieux, Alain Veilleux, Jean Bergeron, S John Weisnagel, André Tchernof

Study Type : Human Study

Additional Links

Substances : [Lignans : CK\(84\) : AC\(28\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

[Flaxseed lignan attenuates high-fat diet-induced visceral and liver fat accumulation and induces adiponectin expression in mice.](#) - GMI Summary

Pubmed Data : Br J Nutr. 2008 Sep;100(3):669-76. Epub 2008 Feb 6. PMID: [18252024](#)

Article Published Date : Sep 01, 2008

Authors : S Fukumitsu, K Aida, N Ueno, S Ozawa, Y Takahashi, M Kobori

Study Type : Animal Study

Additional Links

Substances : [Enterodiol : CK\(32\) : AC\(12\)](#), [Flaxseed : CK\(194\) : AC\(54\)](#), [Lignans : CK\(84\) : AC\(28\)](#),
[Secoisolariciresinol diglucoside \(SDG\) : CK\(8\) : AC\(4\)](#)
Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Adiponectin: Low Levels : CK\(75\) : AC\(25\)](#), [Fatty Liver : CK\(449\) : AC\(109\)](#)
Pharmacological Actions : [Anti-Adipogenic : CK\(79\) : AC\(38\)](#)

[Flaxseed may reduce circulating total and LDL-cholesterol levels.](#) - GMI Summary

Pubmed Data : Am J Clin Nutr. 2009 Aug;90(2):288-97. Epub 2009 Jun 10. PMID: [19515737](#)

Article Published Date : Aug 01, 2009

Authors : An Pan, Danxia Yu, Wendy Demark-Wahnefried, Oscar H Franco, Xu Lin

Study Type : Human Study

Additional Links

Substances : [Flaxseed : CK\(194\) : AC\(54\)](#), [Lignans : CK\(84\) : AC\(28\)](#)

Diseases : [Cholesterol: LDL/HDL ratio : CK\(287\) : AC\(52\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Anticholesteremic Agents : CK\(180\) : AC\(38\)](#)

Qigong

[Tai Chi and Qigong medical exercise improves indicators of metabolic syndrome and glycemic control in adults with raised blood glucose levels.](#) - GMI Summary

Pubmed Data : Br J Sports Med. 2009 Nov;43(11):840-4. Epub 2008 Apr 2. PMID: [20547669](#)

Article Published Date : Nov 01, 2009

Authors : [No authors listed]

Study Type : Human Study

Additional Links

Diseases : [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Therapeutic Actions : [Qigong : CK\(136\) : AC\(23\)](#), [Tai Chi : CK\(293\) : AC\(40\)](#)

[Qigong reduces blood pressure and catecholamine levels of patients with essential hypertension.](#) - GMI Summary

Pubmed Data : J Pineal Res. 2002 Apr;32(3):143-8. PMID: [14602541](#)

Article Published Date : Apr 01, 2002

Authors : Myung-Suk Lee, Myeong Soo Lee, Hye-Jung Kim, Sun-Rock Moon

Study Type : Human Study

Additional Links

Diseases : [Catecholamines: Elevated : CK\(44\) : AC\(10\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Therapeutic Actions : [Qigong : CK\(136\) : AC\(23\)](#)

[Qigong improves the health of type 2 diabetics.](#) - GMI Summary

Pubmed Data : Am J Prev Med. 2011 Aug;41(2):152-8. PMID: [21767722](#)

Article Published Date : Aug 01, 2011

Authors : Xin Liu, Yvette D Miller, Nicola W Burton, Jiun-Horng Chang, Wendy J Brown

Study Type : Human Study

Additional Links

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Overweight : CK\(367\) : AC\(82\)](#)

Therapeutic Actions : [Qigong : CK\(136\) : AC\(23\)](#)

[Qigong therapy induces positive effects on n blood pressure, pain and psychological symptoms in the elderly.](#) - GMI Summary

Pubmed Data : Complement Ther Med. 2003 Sep;11(3):159-64. PMID: [14659379](#)

Article Published Date : Sep 01, 2003

Authors : M S Lee, J-W Jang, H-S Jang, S-R Moon

Study Type : Human Study

Additional Links

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#), [Pain : CK\(476\) : AC\(87\)](#)

Therapeutic Actions : [Qigong : CK\(136\) : AC\(23\)](#)

Stevia

[Stevia acts as an antihyperglycemic and a blood pressure-lowering substance, which may provide therapeutic benefits in the treatment of type 2 diabetes and the metabolic syndrome](#) - GMI Summary

Pubmed Data : Metabolism. 2003 Mar;52(3):372-8. PMID: [12647278](#)

Article Published Date : Mar 01, 2003

Authors : P B Jeppesen, S Gregersen, S E D Rolfsen, M Jepsen, M Colombo, A Agger, J Xiao, M Kruhøffer, T Orntoft, K Hermansen

Study Type : Animal Study

Additional Links

Substances : [Stevia : CK\(65\) : AC\(19\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Pharmacological Actions : [Insulinotrophic : CK\(15\) : AC\(7\)](#)

[Stevia has a blood pressure lowering effect in patients with mild essential hypertension.](#) - GMI Summary

Pubmed Data : Clin Ther. 2003 Nov;25(11):2797-808. PMID: [14693305](#)

Article Published Date : Nov 01, 2003

Authors : Ming-Hsiung Hsieh, Paul Chan, Yuh-Mou Sue, Ju-Chi Liu, Toong Hua Liang, Tsuei-Yuen Huang, Brian Tomlinson, Moses Sing Sum Chow, Pai-Feng Kao, Yi-Jen Chen

Study Type : Human Study

Additional Links

Substances : [Stevia : CK\(65\) : AC\(19\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Antihypertensive Agents : CK\(158\) : AC\(35\)](#)

[Stevia safely reduces hypertension. - Article 2](#) - GMI Summary

Pubmed Data : Br J Clin Pharmacol. 2000 Sep;50(3):215-20. PMID: [10971305](#)

Article Published Date : Sep 01, 2000

Authors : P Chan, B Tomlinson, Y J Chen, J C Liu, M H Hsieh, J T Cheng

Study Type : Human Study

Additional Links

Substances : [Stevia : CK\(65\) : AC\(19\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

[Stevioside improves insulin sensitivity in rats.](#) - GMI Summary

Pubmed Data : J Neuroimmunol. 2009 Feb 15;207(1-2):111-6. Epub 2009 Jan 20. PMID: [16278783](#)

Article Published Date : Feb 15, 2009

Authors : J-C Chang, M C Wu, I-M Liu, J-T Cheng

Study Type : Animal Study

Additional Links

Substances : [Stevia : CK\(65\) : AC\(19\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Additional Keywords : [Fructose-Induced Insulin Resistance : CK\(44\) : AC\(14\)](#)

[The combination of stevioside and soy supplementation appears to possess the potential as effective treatment of a number of the characteristic features of the metabolic syndrome.](#) - GMI Summary

Pubmed Data : Metabolism. 2005 Sep;54(9):1181-8. PMID: [16125530](#)

Article Published Date : Sep 01, 2005

Authors : Stig Eric Underbjerg Dyrskog, Per Bendix Jeppesen, Michele Colombo, Reziwanggu Abudula, Kjeld Hermansen

Study Type : Animal Study

Additional Links

Substances : [Soy : CK\(1229\) : AC\(332\)](#), [Stevia : CK\(65\) : AC\(19\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Vitamin C

[Chlorophytum borivilianum has an ameliorative effect on lipid metabolism in hyperlipidemic rats.](#) - GMI Summary

Pubmed Data : Clin Exp Pharmacol Physiol. 2007 Mar;34(3):244-9. PMID: [17250646](#)

Article Published Date : Mar 01, 2007

Authors : N P Visavadiya, A V R L Narasimhacharya

Study Type : Animal Study

Additional Links

Substances : [Vitamin C : CK\(817\) : AC\(234\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hyperlipidemia : CK\(403\) : AC\(105\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Hypolipidemic : CK\(282\) : AC\(75\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

[Curcumin might increase the effect of vitamin C in protecting the function of endothelial cells through its anti-oxidant with hypoglycemic and hypolipidemic actions.](#) - GMI Summary

Pubmed Data : Clin Hemorheol Microcirc. 2006;35(4):481-9. PMID: [17148847](#)

Article Published Date : Jan 01, 2006

Authors : Suthiluk Patumraj, Natchaya Wongeakin, Patarin Sridulyakul, Amporn Jariyapongskul, Narisa Futrakul, Srichitra Bunnag

Study Type : Animal Study

Additional Links

Substances : [Curcumin : CK\(2792\) : AC\(1459\)](#), [Vitamin C : CK\(817\) : AC\(234\)](#)
Diseases : [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#)
Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#),
[Hypolipidemic : CK\(282\) : AC\(75\)](#)
Additional Keywords : [Natural Substance Synergy : CK\(129\) : AC\(74\)](#)

[Hypertension and low antioxidant levels are associated with the pathogenesis of abdominal aneurysm. - GMI Summary](#)

Pubmed Data : Proc Soc Exp Biol Med. 1991 Mar;196(3):273-9. PMID: [1998004](#)

Article Published Date : Mar 01, 1991

Authors : G C Hunter, M A Dubick, C L Keen, C D Eskelson

Study Type : Human Study

Additional Links

Substances : [Antioxidant formulas : CK\(313\) : AC\(72\)](#), [Vitamin C : CK\(817\) : AC\(234\)](#)

Diseases : [Aortic Aneurysm : CK\(33\) : AC\(6\)](#), [Atherosclerosis : CK\(461\) : AC\(71\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#)

Additional Keywords : [Diseases that are Linked : CK\(1588\) : AC\(254\)](#)

[Muskmelon, watermelon and mango fruit may have an ameliorative effect on atherogenic diet induced dyslipidemia, hypothyroidism and hyperglycemia in rats. - GMI Summary](#)

Pubmed Data : Biofactors. 2008;33(1):13-24. PMID: [19276533](#)

Article Published Date : Jan 01, 2008

Authors : Hamendra Singh Parmar, Anand Kar

Study Type : Animal Study

Additional Links

Substances : [Flavonoids : CK\(732\) : AC\(287\)](#), [Mango : CK\(23\) : AC\(11\)](#), [Muskmelon : CK\(3\) : AC\(1\)](#), [Polyphenols : CK\(382\) : AC\(170\)](#), [Vitamin C : CK\(817\) : AC\(234\)](#), [Watermelon : CK\(40\) : AC\(9\)](#)

Diseases : [Arteriosclerosis : CK\(409\) : AC\(137\)](#), [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Hyperglycemia : CK\(145\) : AC\(47\)](#),
[Hypothyroidism : CK\(391\) : AC\(75\)](#), [Oxidative Stress : CK\(1631\) : AC\(660\)](#)

Pharmacological Actions : [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

[Serum vitamin C concentration is low in peripheral arterial disease and is associated with inflammation and severity of atherosclerosis. - GMI Summary](#)

Pubmed Data : Circulation. 2001 Apr 10;103(14):1863-8. PMID: [11294804](#)

Article Published Date : Apr 10, 2001

Authors : M Langlois, D Duprez, J Delanghe, M De Buyzere, D L Clement

Study Type : Human Study

Additional Links

Substances : [Vitamin C : CK\(817\) : AC\(234\)](#)

Diseases : [Arteriosclerosis : CK\(409\) : AC\(137\)](#), [C-Reactive Protein : CK\(425\) : AC\(72\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#),
[Inflammation : CK\(829\) : AC\(330\)](#), [Peripheral Vascular Diseases : CK\(141\) : AC\(23\)](#), [Smoking : CK\(403\) : AC\(67\)](#)

[Sprouting buckwheat triggers a variety of nutritional changes increasing hypocholesterolemic, hypotriglyceridemic, and antioxidative activities. - GMI Summary](#)

Pubmed Data : J Agric Food Chem. 2008 Feb 27;56(4):1216-23. Epub 2008 Jan 24. PMID: [18217700](#)

Article Published Date : Feb 27, 2008

Authors : Li-Yun Lin, Chiung-Chi Peng, Ya-Lu Yang, Robert Y Peng

Study Type : In Vitro Study

Additional Links

Substances : [Buckwheat : CK\(50\) : AC\(16\)](#), [Flavonoids : CK\(732\) : AC\(287\)](#), [Polyphenols : CK\(382\) : AC\(170\)](#), [Quercetin : CK\(265\) : AC\(134\)](#), [Rutin : CK\(75\) : AC\(29\)](#), [Sprouts : CK\(72\) : AC\(35\)](#), [Vitamin C : CK\(817\) : AC\(234\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hyperlipidemia : CK\(403\) : AC\(105\)](#), [Triglycerides: Elevated : CK\(227\) : AC\(64\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Hypolipidemic : CK\(282\) : AC\(75\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

Dietary Modification: Low Carbohydrate

[A low carbohydrate diet has the potential to reduce abdominal fat and adverse lipid changes in patients with type 2 diabetes.](#) - GMI Summary

Pubmed Data : Diabetes Metab Syndr Obes. 2011 ;4:167-74. Epub 2011 Apr 29. PMID: [21779148](#)

Article Published Date : Jan 01, 2011

Authors : Tae Sasakabe, Hajime Haimoto, Hiroyuki Umegaki, Kenji Wakai

Study Type : Human Study

Additional Links

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Cholesterol: LDL/HDL ratio : CK\(287\) : AC\(52\)](#), [Diabetes: Cardiovascular Illness : CK\(501\) : AC\(102\)](#), [Dyslipidemias : CK\(157\) : AC\(29\)](#)

Therapeutic Actions : [Dietary Modification: Low Carbohydrate : CK\(12\) : AC\(2\)](#)

[Low-carbohydrate diet disrupts the association between insulin resistance and weight gain.](#)
- GMI Summary

Pubmed Data : Metabolism. 2009 Aug;58(8):1116-22. Epub 2009 Jun 18. PMID: [19439329](#)

Article Published Date : Aug 01, 2009

Authors : Jose O Leite, Ryan DeOgburn, Joseph C Ratliff, Randy Su, Jeff S Volek, Mary M McGrane, Alan Dardik, Maria Luz Fernandez

Study Type : Animal Study

Additional Links

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Overweight : CK\(367\) : AC\(82\)](#)

Therapeutic Actions : [Dietary Modification: Low Carbohydrate : CK\(12\) : AC\(2\)](#)

Pharmacological Actions : [Glucagon Like Peptide 1 \(GLP-1\) Down-Regulation : CK\(35\) : AC\(6\)](#)

Additional Keywords : [Diseases that are Linked : CK\(1588\) : AC\(254\)](#)

Buckwheat

[D-chiro-inositol has a therapeutic effect in lean women with the polycystic ovary syndrome.](#)
- GMI Summary

Pubmed Data : Endocr Pract. 2002 Nov-Dec;8(6):417-23. PMID: [15251831](#)

Article Published Date : Nov 01, 2002

Authors : Maria J Luorno, Daniela J Jakubowicz, Jean-Patrice Baillargeon, Pamela Dillon, Ronald D Gunn, Geoffrey Allan, John E Nestler

Study Type : Human Study

Additional Links

Substances : [Buckwheat : CK\(50\) : AC\(16\)](#), [D-Chiro-Inositol : CK\(20\) : AC\(2\)](#), [Inositol : CK\(69\) : AC\(13\)](#)
Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Polycystic Ovary Syndrome : CK\(147\) : AC\(21\)](#)

[Sprouting buckwheat triggers a variety of nutritional changes increasing hypocholesterolemic, hypotriglyceridemic, and antioxidative activities.](#) - GMI Summary

Pubmed Data : J Agric Food Chem. 2008 Feb 27;56(4):1216-23. Epub 2008 Jan 24. PMID: [18217700](#)

Article Published Date : Feb 27, 2008

Authors : Li-Yun Lin, Chiung-Chi Peng, Ya-Lu Yang, Robert Y Peng

Study Type : In Vitro Study

Additional Links

Substances : [Buckwheat : CK\(50\) : AC\(16\)](#), [Flavonoids : CK\(732\) : AC\(287\)](#), [Polyphenols : CK\(382\) : AC\(170\)](#), [Quercetin : CK\(265\) : AC\(134\)](#), [Rutin : CK\(75\) : AC\(29\)](#), [Sprouts : CK\(72\) : AC\(35\)](#), [Vitamin C : CK\(817\) : AC\(234\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hyperlipidemia : CK\(403\) : AC\(105\)](#), [Triglycerides: Elevated : CK\(227\) : AC\(64\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Hypolipidemic : CK\(282\) : AC\(75\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

Black Cumin (Nigella sativa)

[Black Cumin improves blood lipid profiles.](#) - GMI Summary

Pubmed Data : Neurosci Lett. 2010 Oct 4;482(3):183-7. Epub 2010 Jun 11. PMID: [16092657](#)

Article Published Date : Oct 04, 2010

Authors : Amir Hamzo Dahri, Atta Muhammad Chandiol, Ali Akbar Rahoo, Rafique Ahmed Memon

Study Type : Animal Study

Additional Links

Substances : [Black Cumin \(Nigella sativa\) : CK\(114\) : AC\(35\)](#)

Diseases : [Cholesterol: LDL/HDL ratio : CK\(287\) : AC\(52\)](#), [HDL: Low : CK\(195\) : AC\(48\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

[Black cumin may have antidiabetic effects by increasing insulin sensitivity.](#) - GMI Summary

Pubmed Data : Evid Based Complement Alternat Med. 2011;2011:538671. Epub 2011 Apr 14. PMID: [21584245](#)

Article Published Date : Jan 01, 2011

Authors : Ali Benhaddou-Andaloussi, Louis Martineau, Tri Vuong, Bouchra Meddah, Padma Madiraju, Abdellatif Settaf, Pierre S Haddad

Study Type : Animal Study

Additional Links

Substances : [Black Cumin \(Nigella sativa\) : CK\(114\) : AC\(35\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Insulin Sensitizers : CK\(87\) : AC\(16\)](#)

[Black cumin seeds have significant anti-diabetic effects in type 2 diabetics.](#) - GMI Summary

Pubmed Data : Indian J Physiol Pharmacol. 2010 Oct-Dec;54(4):344-54. PMID: [21675032](#)

Article Published Date : Oct 01, 2010

Authors : Abdullah O Bamosa, Huda Kaatabi, Fatma M Lebdaa, Abdul-Muhssen Al Elq, Ali Al-Sultanb

Study Type : Human Study

Additional Links

Substances : [Black Cumin \(Nigella sativa\) : CK\(114\) : AC\(35\)](#)

Diseases : [A1C : CK\(24\) : AC\(4\)](#), [Diabetes: Glycation/A1C : CK\(135\) : AC\(30\)](#), [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#), [Insulin Sensitizers : CK\(87\) : AC\(16\)](#)

Additional Keywords : [Beta Cell Protection : CK\(58\) : AC\(21\)](#), [Beta Cell Regeneration : CK\(74\) : AC\(23\)](#)

[The daily use of black cumin seeds for 2 months may have a blood pressure-lowering effect in patients with mild hypertension. - GMI Summary](#)

Pubmed Data : Braz J Med Biol Res. 2006 Apr;39(4):421-9. Epub 2006 Apr 3. PMID: [18705755](#)

Article Published Date : Apr 01, 2006

Authors : Farshad Roghani Dehkordi, Amir Farhad Kamkhah

Study Type : Human Study

Additional Links

Substances : [Black Cumin \(Nigella sativa\) : CK\(114\) : AC\(35\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Antihypertensive Agents : CK\(158\) : AC\(35\)](#), [Hypotensive : CK\(239\) : AC\(45\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

Policosanol

[A combination of berberine, red yeast rice and policosanol lowers lipid levels and improves endothelial function and insulin sensitivity in hypercholesterolemic patients. - GMI Summary](#)

Pubmed Data : Nutr Metab Cardiovasc Dis. 2009 Aug 19. Epub 2009 Aug 19. PMID: [19699071](#)

Article Published Date : Aug 19, 2009

Authors : F Affuso, A Ruvolo, F Micillo, L Saccà, S Fazio

Study Type : Human Study

Additional Links

Substances : [Berberine : CK\(132\) : AC\(67\)](#), [Policosanol : CK\(174\) : AC\(25\)](#), [Red Yeast Rice : CK\(118\) : AC\(33\)](#)

Diseases : [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Hypercholesterolemia : CK\(692\) : AC\(159\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

[Policosanol is more effective than pravastatin on improving blood lipid profiles, platelet aggregation and endothelium in older patients with type II hypercholesterolemia and high coronary risk. - GMI Summary](#)

Pubmed Data : Zhong Yao Cai. 2003 Jan;26(1):31-2. PMID: [10939028](#)

Article Published Date : Jan 01, 2003

Authors : G Castaño, R Más, M L Arruzazabala, M Noa, J Illnait, J C Fernández, V Molina, A Menéndez

Study Type : Human Study

Additional Links

Substances : [Policosanol : CK\(174\) : AC\(25\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hypercholesterolemia : CK\(692\) : AC\(159\)](#)

Additional Keywords : [Superiority of Natural Substances versus Drugs : CK\(754\) : AC\(168\)](#)

[Policosanol is superior to Lipitor \(atorvastatin\) in improving blood lipid profiles and inhibiting platelet aggregation. - GMI Summary](#)

Pubmed Data : Clin Drug Investig. 2003;23(10):639-50. PMID: [17535079](#)

Article Published Date : Jan 01, 2003

Authors : Gladys Castaño, Lilia Fernández, Rosa Mas, José Illnait, Meylin Mesa, J C Fernández

Study Type : Human Study

Additional Links

Substances : [Policosanol](#) : CK(174) : AC(25)

Diseases : [Clotting](#) : CK(144) : AC(35), [Dyslipidemias](#) : CK(157) : AC(29), [Thrombosis](#) : CK(254) : AC(71)

Pharmacological Actions : [Anti-Platelet](#) : CK(89) : AC(31)

Additional Keywords : [Superiority of Natural Substances versus Drugs](#) : CK(754) : AC(168)

Bitter Melon

[Bitter melon attenuates fructose-induced insulin resistance in fructose-fed rats. - GMI](#)

Summary

Pubmed Data : Antioxid Redox Signal. 2005 Nov-Dec;7(11-12):1612-20. PMID: [19429344](#)

Article Published Date : Nov 01, 2005

Authors : Chun-Ching Shih, Cheng-Hsiu Lin, Wei-Li Lin, Jin-Bin Wu

Study Type : Animal Study

Additional Links

Substances : [Bitter Melon](#) : CK(54) : AC(18)

Diseases : [Adiponectin: Low Levels](#) : CK(75) : AC(25), [Fructose-Induced Toxicity](#) : CK(129) : AC(41), [Insulin Resistance](#) : CK(707) : AC(184)

Additional Keywords : [Plant Extracts](#) : CK(3121) : AC(1098)

[Bitter melon has a preventive effect on abdominal and liver fat in high-fat-fed hamster. -](#)

GMI Summary

Pubmed Data : J Agric Food Chem. 2009 Jul 22;57(14):6461-7. PMID: [19601676](#)

Article Published Date : Jul 22, 2009

Authors : [No authors listed]

Study Type : Animal Study

Additional Links

Substances : [Bitter Melon](#) : CK(54) : AC(18)

Diseases : [Abdominal Obesity \(Midsection Fat\)](#) : CK(227) : AC(47), [Fatty Liver](#) : CK(449) : AC(109), [Obesity](#) : CK(963) : AC(251)

Additional Keywords : [Plant Extracts](#) : CK(3121) : AC(1098)

[Bitter melon has significant effect against insulin resistance and visceral obesity of mice on a high-fat diet. - GMI Summary](#)

Pubmed Data : Diabetes Res Clin Pract. 2008 Aug;81(2):134-43. Epub 2008 Jun 11. PMID: [18550200](#)

Article Published Date : Aug 01, 2008

Authors : Chun-Ching Shih, Cheng-Hsiu Lin, Wei-Li Lin

Study Type : Animal Study

Additional Links

Substances : [Bitter Melon](#) : CK(54) : AC(18)

Diseases : [Abdominal Obesity \(Midsection Fat\)](#) : CK(227) : AC(47), [Diabetes Mellitus: Type 2](#) : CK(2227) : AC(301), [Insulin Resistance](#) : CK(707) : AC(184)

[Bitter melon significantly reduces insulin resistance and suppresses visceral fat accumulation.](#) - GMI Summary

Pubmed Data : Br J Nutr. 2008 Feb;99(2):230-9. Epub 2007 Jul 26. PMID: [17651527](#)

Article Published Date : Feb 01, 2008

Authors : Hui-Ling Huang, Ya-Wen Hong, You-Hong Wong, Ying-Nien Chen, Jong-Ho Chyuan, Ching-Jang Huang, Pei-Min Chao

Study Type : Animal Study

Additional Links

Substances : [Bitter Melon](#) : CK(54) : AC(18)

Diseases : [Insulin Resistance](#) : CK(707) : AC(184), [Metabolic Syndrome X](#) : CK(376) : AC(97), [Obesity](#) : CK(963) : AC(251), [Overweight](#) : CK(367) : AC(82)

Additional Keywords : [Lipogenesis Inhibitor](#) : CK(3) : AC(1)

Catechin

[EGCG inhibits obesity, metabolic syndrome, and fatty liver disease in high-fat-fed mice.](#) - GMI Summary

Pubmed Data : J Nutr. 2008 Sep;138(9):1677-83. PMID: [18716169](#)

Article Published Date : Sep 01, 2008

Authors : Mousumi Bose, Joshua D Lambert, Jihyeung Ju, Kenneth R Reuhl, Sue A Shapses, Chung S Yang

Study Type : Animal Study

Additional Links

Substances : [Catechin](#) : CK(314) : AC(124)

Diseases : [Fatty Liver](#) : CK(449) : AC(109), [Metabolic Syndrome X](#) : CK(376) : AC(97), [Obesity](#) : CK(963) : AC(251)

[Green tea catechin consumption enhances exercise-induced abdominal fat loss in overweight and obese adults.](#) - GMI Summary

Pubmed Data : J Nutr. 2009 Feb;139(2):264-70. Epub 2008 Dec 11. PMID: [19074207](#)

Article Published Date : Feb 01, 2009

Authors : Kevin C Maki, Matthew S Reeves, Mildred Farmer, Koichi Yasunaga, Noboru Matsuo, Yoshihisa Katsuragi, Masanori Komikado, Ichiro Tokimitsu, Donna Wilder, Franz Jones, Jeffrey B Blumberg, Yolanda Cartwright

Study Type : Human Study

Additional Links

Substances : [Catechin](#) : CK(314) : AC(124)

Diseases : [Abdominal Obesity \(Midsection Fat\)](#) : CK(227) : AC(47), [Obesity](#) : CK(963) : AC(251)

Therapeutic Actions : [Exercise](#) : CK(281) : AC(57)

[The consumption of high-catechin green tea leads to improvements in body composition and reduces abdominal fatness in moderately overweight Chinese subjects.](#) - GMI Summary

Pubmed Data : Obesity (Silver Spring). 2009 Aug 13. Epub 2009 Aug 13. PMID: [19680234](#)

Article Published Date : Aug 13, 2009

Authors : Hongqiang Wang, Yibo Wen, Yaping Du, Xiuyuan Yan, Hongwei Guo, Jane A Rycroft, Niels Boon, Eva M R Kovacs, David J Mela

Study Type : Human Study

Additional Links

Substances : [Catechin](#) : CK(314) : AC(124), [Green Tea](#) : CK(732) : AC(272)

Diseases : [Abdominal Obesity \(Midsection Fat\)](#) : CK(227) : AC(47)

[The high intake of flavanol-rich cocoa by the Kuna Indians may be responsible for their low blood pressure.](#) - GMI Summary

Pubmed Data : J Cardiovasc Pharmacol. 2006;47 Suppl 2:S103-9; discussion 119-21. PMID: [16794446](#)

Article Published Date : Jan 01, 2006

Authors : Marjorie L McCullough, Kati Chevaux, Lilian Jackson, Mack Preston, Gregorio Martinez, Harold H Schmitz, Caroline Coletti, Hannia Campos, Norman K Hollenberg

Study Type : Human Study

Additional Links

Substances : [Catechin](#) : CK(314) : AC(124), [Cocoa](#) : CK(192) : AC(43), [Flavonoids](#) : CK(732) : AC(287)

Diseases : [Hypertension](#) : CK(1319) : AC(254)

Additional Keywords : [Proanthocyanidins](#) : CK(129) : AC(45)

Coconut

[Coconut kernel protein favorably modifies the effect of coconut oil on serum lipids.](#) - GMI Summary

Pubmed Data : Plant Foods Hum Nutr. 1999;53(2):133-44. PMID: [10472790](#)

Article Published Date : Jan 01, 1999

Authors : K G Padmakumaran Nair, T Rajamohan, P A Kurup

Study Type : Human Study

Additional Links

Substances : [Arginine](#) : CK(854) : AC(168), [Coconut](#) : CK(99) : AC(35), [Coconut Oil](#) : CK(59) : AC(17), [Coconut Protein](#) : CK(11) : AC(3)

Diseases : [High Cholesterol](#) : CK(865) : AC(192)

Pharmacological Actions : [Anti-Adipogenic](#) : CK(79) : AC(38), [Hypolipidemic](#) : CK(282) : AC(75)

[Coconut protein is able to reduce hyperlipidemia and peroxidative effect induced by high fat cholesterol containing diet and these effects are mainly mediated by the L-arginine present in it.](#) - GMI Summary

Pubmed Data : Clin Ther. 2010 May;32(5):909-14. PMID: [11883511](#)

Article Published Date : May 01, 2010

Authors : G Salil, T Rajamohan

Study Type : Animal Study

Additional Links

Substances : [Arginine](#) : CK(854) : AC(168), [Coconut](#) : CK(99) : AC(35), [Coconut Protein](#) : CK(11) : AC(3)

Diseases : [High Cholesterol](#) : CK(865) : AC(192)

Pharmacological Actions : [Hypolipidemic](#) : CK(282) : AC(75)

[Coconut water significantly reduces systolic and diastolic blood pressures in hypertensive subjects.](#) - GMI Summary

Pubmed Data : West Indian Med J. 2005 Jan;54(1):3-8. PMID: [15892382](#)

Article Published Date : Jan 01, 2005

Authors : T Alleyne, S Roache, C Thomas, A Shirley

Study Type : Human Study

Additional Links

Substances : [Coconut : CK\(99\) : AC\(35\)](#), [Coconut Water : CK\(28\) : AC\(11\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Hypotensive : CK\(239\) : AC\(45\)](#)

[Dietary coconut oil elevates HDL and reduces abdominal obesity in women.](#) - GMI Summary

Pubmed Data : Lipids. 2009 Jul;44(7):593-601. Epub 2009 May 13. PMID: [19437058](#)

Article Published Date : Jul 01, 2009

Authors : Monica L Assunção, Haroldo S Ferreira, Aldenir F dos Santos, Cyro R Cabral, Telma M M T Florêncio

Study Type : Human Study

Additional Links

Substances : [Coconut : CK\(99\) : AC\(35\)](#), [Coconut Oil : CK\(59\) : AC\(17\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [HDL: Low : CK\(195\) : AC\(48\)](#)

Astaxanthin

[Astaxanthin ameliorates features of metabolic syndrome in a rat model.](#) - GMI Summary

Pubmed Data : Life Sci. 2007 Jan 16;80(6):522-9. Epub 2006 Oct 12. PMID: [17074368](#)

Article Published Date : Jan 16, 2007

Authors : Ghazi Hussein, Takako Nakagawa, Hirozo Goto, Yutaka Shimada, Kinzo Matsumoto, Ushio Sankawa, Hiroshi Watanabe

Study Type : Animal Study

Additional Links

Substances : [Astaxanthin : CK\(449\) : AC\(90\)](#)

Diseases : [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

[Astaxanthin exhibits antihypertensive and neuroprotective effects in animals.](#) - GMI Summary

Pubmed Data : Biol Pharm Bull. 2005 Jan;28(1):47-52. PMID: [15635162](#)

Article Published Date : Jan 01, 2005

Authors : Ghazi Hussein, Masami Nakamura, Qi Zhao, Tomomi Iguchi, Hirozo Goto, Ushio Sankawa, Hiroshi Watanabe

Study Type : Animal Study

Additional Links

Substances : [Astaxanthin : CK\(449\) : AC\(90\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#), [Memory Loss : CK\(89\) : AC\(30\)](#), [Stroke: Prevention : CK\(98\) : AC\(18\)](#), [Vascular Dementia : CK\(2\) : AC\(1\)](#)

Pharmacological Actions : [Antihypertensive Agents : CK\(158\) : AC\(35\)](#), [Neuroprotective Agents : CK\(985\) : AC\(448\)](#)

[Astaxanthin has a therapeutic effect in obese mice fed a high-fat diet.](#) - GMI Summary

Pubmed Data : J Ethnopharmacol. 2002 Sep;82(1):55-8. PMID: [17420580](#)

Article Published Date : Sep 01, 2002

Authors : Mayumi Ikeuchi, Tomoyuki Koyama, Jiro Takahashi, Kazunaga Yazawa

Study Type : Animal Study

Additional Links

Substances : [Astaxanthin](#) : CK(449) : AC(90)

Diseases : [Metabolic Syndrome X](#) : CK(376) : AC(97), [Obesity](#) : CK(963) : AC(251)

[Astaxanthin has significant anti-hypertensive potential.](#) - GMI Summary

Pubmed Data : Biol Pharm Bull. 2005 Jun;28(6):967-71. PMID: [15930728](#)

Article Published Date : Jun 01, 2005

Authors : Ghazi Hussein, Hirozo Goto, Shinobu Oda, Tomomi Iguchi, Ushio Sankawa, Kinzo Matsumoto, Hiroshi Watanabe

Study Type : Animal Study

Additional Links

Substances : [Astaxanthin](#) : CK(449) : AC(90)

Diseases : [Hypertension](#) : CK(1319) : AC(254)

Pharmacological Actions : [Angiotensin-Converting Enzyme Inhibitors](#) : CK(23) : AC(12), [Antihypertensive Agents](#) : CK(158) : AC(35)

[Astaxanthin improves artery thickness and vascular elastin in hypertension.](#) - GMI Summary

Pubmed Data : Biol Pharm Bull. 2006 Apr;29(4):684-8. PMID: [16595899](#)

Article Published Date : Apr 01, 2006

Authors : Ghazi Hussein, Hirozo Goto, Shinobu Oda, Ushio Sankawa, Kinzo Matsumoto, Hiroshi Watanabe

Study Type : Animal Study

Additional Links

Substances : [Astaxanthin](#) : CK(449) : AC(90)

Diseases : [Arterial Hardening: Elasticity](#) : CK(94) : AC(17), [Arteriosclerosis](#) : CK(409) : AC(137), [Atherosclerosis](#) : CK(461) : AC(71), [Blood Pressure: High](#) : CK(1288) : AC(243), [Hypertension](#) : CK(1319) : AC(254)

[High dose astaxanthin compares favorably to the drugs captopril and pioglitazone at lowering blood pressure, increasing insulin sensitivity and reducing restraint stress.](#) - GMI Summary

Pubmed Data : Int J Med Sci. 2011;8(2):126-38. Epub 2011 Feb 9. PMID: [21326955](#)

Article Published Date : Jan 01, 2011

Authors : Harry G Preuss, Bobby Echard, Eiji Yamashita, Nicholas V Perricone

Study Type : Animal Study

Additional Links

Substances : [Astaxanthin](#) : CK(449) : AC(90)

Diseases : [Hypertension](#) : CK(1319) : AC(254), [Insulin Resistance](#) : CK(707) : AC(184), [Stress](#) : CK(317) : AC(60)

Pharmacological Actions : [Hypotensive](#) : CK(239) : AC(45), [Insulin Sensitizers](#) : CK(87) : AC(16)

Additional Keywords : [Drug: Captopril](#) : CK(2) : AC(1), [Drug: Pioglitazone](#) : CK(2) : AC(1), [Superiority of Natural Substances versus Drugs](#) : CK(754) : AC(168)

Chlorella (Algae)

[Chlorella and its fractions have a beneficial effect on stroke-prone spontaneously hypertensive rats.](#) - GMI Summary

Pubmed Data : J Nutr Sci Vitaminol (Tokyo). 2006 Dec;52(6):457-66. PMID: [17330510](#)

Article Published Date : Dec 01, 2006

Authors : Hiroshi Sansawa, Masatoshi Takahashi, Satoru Tsuchikura, Hiroshi Endo

Study Type : Animal Study

Additional Links

Substances : [Chlorella \(Algae\) : CK\(102\) : AC\(30\)](#)

Diseases : [Cerebral Stroke : CK\(39\) : AC\(7\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Stroke: Prevention : CK\(98\) : AC\(18\)](#)

Pharmacological Actions : [Hypotensive : CK\(239\) : AC\(45\)](#)

[Chlorella prevents dyslipidemia in animals fed a chronic high fat diet.](#) - GMI Summary

Pubmed Data : Life Sci. 2005 May 13;76(26):3001-13. PMID: [15850594](#)

Article Published Date : May 13, 2005

Authors : Jong-Yuh Cherng, Mei-Fen Shih

Study Type : Animal Study

Additional Links

Substances : [Chlorella \(Algae\) : CK\(102\) : AC\(30\)](#)

Diseases : [Dyslipidemias : CK\(157\) : AC\(29\)](#)

[Chlorella supplementation is effective in stabilizing the condition of some patients with mild to moderate hypertension.](#) - GMI Summary

Pubmed Data : J Med Food. 2002 Fall;5(3):141-52. PMID: [12495586](#)

Article Published Date : Sep 01, 2002

Authors : Randall E Merchant, Cynthia A Andre, Domenic A Sica

Study Type : Human Study

Additional Links

Substances : [Chlorella \(Algae\) : CK\(102\) : AC\(30\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

[GABA-rich Chlorella significantly decreased high-normal blood pressure and borderline hypertension.](#) - GMI Summary

Pubmed Data : Clin Exp Hypertens. 2009 Jun;31(4):342-54. PMID: [19811362](#)

Article Published Date : Jun 01, 2009

Authors : Morio Shimada, Takashi Hasegawa, Chiaki Nishimura, Hiroko Kan, Toshihiro Kanno, Toshio Nakamura, Tsuneo Matsubayashi

Study Type : Human Study

Additional Links

Substances : [Chlorella \(Algae\) : CK\(102\) : AC\(30\)](#), [GABA \(gamma-Aminobutyric Acid\) : CK\(33\) : AC\(10\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Hypotensive : CK\(239\) : AC\(45\)](#)

[Oral administration of Chlorella has the ability to improve fructose-induced insulin sensitivity.](#) - GMI Summary

Pubmed Data : Phytother Res. 2011 Feb 10. Epub 2011 Feb 10. PMID: [21312306](#)

Article Published Date : Feb 10, 2011

Authors : Yi-Jui Chiu, Hsien-Hui Chung, Ching-Hua Yeh, Juei-Tang Cheng, Shih-Hsiang Lo

Study Type : Animal Study

Additional Links

Substances : [Chlorella \(Algae\) : CK\(102\) : AC\(30\)](#)

Diseases : [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Insulin Sensitizers : CK\(87\) : AC\(16\)](#)

Cinnamon

[Cinnamon extract improves insulin action via increasing glucose uptake in vivo, at least in part through enhancing the insulin-signaling pathway in skeletal muscle.](#) - GMI Summary

Pubmed Data : Diabetes Res Clin Pract. 2003 Dec;62(3):139-48. PMID: [14625128](#)

Article Published Date : Dec 01, 2003

Authors : Bolin Qin, Masaru Nagasaki, Ming Ren, Gustavo Bajotto, Yoshiharu Oshida, Yuzo Sato

Study Type : Animal Study

Additional Links

Substances : [Cinnamon : CK\(115\) : AC\(57\)](#)

Diseases : [Hyperglycemia : CK\(145\) : AC\(47\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

[Cinnamon has a potential role in the prevention of insulin resistance, metabolic syndrome, and type 2 diabetes.](#) - GMI Summary

Pubmed Data : J Diabetes Sci Technol. 2010 May;4(3):685-93. Epub 2010 May 1. PMID: [20513336](#)

Article Published Date : May 01, 2010

Authors : Bolin Qin, Kiran S Panickar, Richard A Anderson

Study Type : Review

Additional Links

Substances : [Cinnamon : CK\(115\) : AC\(57\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

[Hydroxychalcone, a compound derived from cinnamon mimicks the function of insulin in adipocytes.](#) - GMI Summary

Pubmed Data : J Am Coll Nutr. 2001 Aug;20(4):327-36. PMID: [11506060](#)

Article Published Date : Aug 01, 2001

Authors : K J Jarvill-Taylor, R A Anderson, D J Graves

Study Type : In Vitro Study

Additional Links

Substances : [Cinnamon : CK\(115\) : AC\(57\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Additional Keywords : [Insulin Mimetic : CK\(3\) : AC\(3\)](#)

[The intake of 2g of cinnamon for 12 weeks significantly reduces the HbA1c, systolic and diastolic blood pressures among poorly controlled type 2 diabetes patients.](#) - GMI Summary

Pubmed Data : Photochem Photobiol. 2004 Nov-Dec;80(3):579-82. PMID: [20854384](#)

Article Published Date : Nov 01, 2004

Authors : R Akilen, A Tsiami, D Devendra, N Robinson

Study Type : Human Study

Additional Links

Substances : [Cinnamon](#) : CK(115) : AC(57)

Diseases : [Advanced Glycation End products \(AGE\)](#) : CK(1778) : AC(39), [Diabetes: Cardiovascular Illness](#) : CK(501) : AC(102), [Diabetes: Glycation/A1C](#) : CK(135) : AC(30), [Diabetes Mellitus: Type 2](#) : CK(2227) : AC(301), [Hypertension](#) : CK(1319) : AC(254)

Olive

[An onion-olive-oil combination reduces arterial blood pressure, plasma viscosity and hematocrit, indicating the cardiovascular benefits of a Mediterranean diet.](#) - GMI Summary

Pubmed Data : Arzneimittelforschung. 2000 Sep;50(9):795-801. PMID: [11050695](#)

Article Published Date : Sep 01, 2000

Authors : U Kalus, G Pindur, F Jung, B Mayer, H Radtke, K Bachmann, C Mrowietz, J Koscielny, H Kiesewetter

Study Type : Human Study

Additional Links

Substances : [Olive](#) : CK(314) : AC(93), [Onion](#) : CK(108) : AC(40)

Diseases : [Blood Coagulation Disorders](#) : CK(36) : AC(11), [Clotting](#) : CK(144) : AC(35), [Hypertension](#) : CK(1319) : AC(254)

Therapeutic Actions : [Dietary Modification: Mediterranean Diet](#) : CK(319) : AC(58)

[Food fried in extra-virgin olive oil improves postprandial insulin response in obese, insulin-resistant women.](#) - GMI Summary

Pubmed Data : J Med Food. 2010 Dec 13. Epub 2010 Dec 13. PMID: [21142948](#)

Article Published Date : Dec 13, 2010

Authors : Sara Farnetti, Noemi Malandrino, Davide Luciani, Giovanni Gasbarrini, Esmeralda Capristo

Study Type : Human Study

Additional Links

Substances : [Olive](#) : CK(314) : AC(93), [Olive Oil](#) : CK(55) : AC(12)

Diseases : [Insulin Resistance](#) : CK(707) : AC(184), [Obesity](#) : CK(963) : AC(251)

[Olive oil consumption increases HDL-cholesterol levels, while decreasing LDL-cholesterol levels, LDL susceptibility to oxidation and lipid peroxidation.](#) - GMI Summary

Pubmed Data : Med Health R I. 2006 Mar;89(3):113. PMID: [16596937](#)

Article Published Date : Mar 01, 2006

Authors : Kathleen Cullinen

Study Type : Commentary

Additional Links

Substances : [Olive](#) : CK(314) : AC(93)

Diseases : [Arteriosclerosis](#) : CK(409) : AC(137), [Cholesterol: Oxidation](#) : CK(329) : AC(96), [HDL: Low](#) : CK(195) : AC(48), [High Cholesterol](#) : CK(865) : AC(192)

Therapeutic Actions : [Dietary Modification: Mediterranean Diet](#) : CK(319) : AC(58)

Watermelon

[Muskmelon, watermelon and mango fruit may have an ameliorative effect on atherogenic diet induced dyslipidemia, hypothyroidism and hyperglycemia in rats.](#) - GMI Summary

Pubmed Data : Biofactors. 2008;33(1):13-24. PMID: [19276533](#)

Article Published Date : Jan 01, 2008

Authors : Hamendra Singh Parmar, Anand Kar

Study Type : Animal Study

Additional Links

Substances : [Flavonoids : CK\(732\) : AC\(287\)](#), [Mango : CK\(23\) : AC\(11\)](#), [Muskmelon : CK\(3\) : AC\(1\)](#), [Polyphenols : CK\(382\) : AC\(170\)](#), [Vitamin C : CK\(817\) : AC\(234\)](#), [Watermelon : CK\(40\) : AC\(9\)](#)

Diseases : [Arteriosclerosis : CK\(409\) : AC\(137\)](#), [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Hyperglycemia : CK\(145\) : AC\(47\)](#), [Hypothyroidism : CK\(391\) : AC\(75\)](#), [Oxidative Stress : CK\(1631\) : AC\(660\)](#)

Pharmacological Actions : [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

[Watermelon pomace \(rich in citrulline\) significantly ameliorates the metabolic syndrome in diabetic fatty rats.](#) - GMI Summary

Pubmed Data : J Nutr. 2007 Dec;137(12):2680-5. PMID: [18029483](#)

Article Published Date : Dec 01, 2007

Authors : Guoyao Wu, Julie K Collins, Penelope Perkins-Veazie, Muhammad Siddiq, Kirk D Dolan, Katherine A Kelly, Cristine L Heaps, Cynthia J Meininger

Study Type : Animal Study

Additional Links

Substances : [Citrulline : CK\(74\) : AC\(14\)](#), [Watermelon : CK\(40\) : AC\(9\)](#)

Diseases : [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

[Watermelon supplementation improves aortic blood pressure and wave reflection in individuals with prehypertension.](#) - GMI Summary

Pubmed Data : Am J Hypertens. 2011 Jan;24(1):40-4. Epub 2010 Jul 8. PMID: [20616787](#)

Article Published Date : Jan 01, 2011

Authors : Arturo Figueroa, Marcos A Sanchez-Gonzalez, Penelope M Perkins-Veazie, Bahram H Arjmandi

Study Type : Human Study

Additional Links

Substances : [Watermelon : CK\(40\) : AC\(9\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#), [Prehypertension : CK\(23\) : AC\(3\)](#)

Pharmacological Actions : [Hypotensive : CK\(239\) : AC\(45\)](#)

Licorice

[Licorice ethanolic extract may be effective in preventing and ameliorating diabetes, ameliorating abdominal obesity and preventing hypertension \(three facets of metabolic syndrome\).](#) - GMI Summary

Pubmed Data : J Nutr. 2003 Nov;133(11):3369-77. PMID: [14608046](#)

Article Published Date : Nov 01, 2003

Authors : Tatsumasa Mae, Hideyuki Kishida, Tozo Nishiyama, Misuzu Tsukagawa, Eisaku Konishi, Minpei Kuroda, Yoshihiro Mimaki, Yutaka Sashida, Kazuma Takahashi, Teruo Kawada, Kaku Nakagawa, Mikio Kitahara

Study Type : Animal Study

Additional Links

Substances : [Flavonoids : CK\(732\) : AC\(287\)](#), [Licorice : CK\(181\) : AC\(79\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

[Licorice reduces body fat and modulate blood sugar. - GMI Summary](#)

Pubmed Data : Biol Pharm Bull. 2004 Nov;27(11):1775-8. PMID: [15516721](#)

Article Published Date : Nov 01, 2004

Authors : Kaku Nakagawa, Hideyuki Kishida, Naoki Arai, Tozo Nishiyama, Tatsumasa Mae

Study Type : Animal Study

Additional Links

Substances : [Licorice : CK\(181\) : AC\(79\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#)

[Licorice suppresses abdominal fat accumulation and body weight gain in high-fat diet-induced obese mice. - GMI Summary](#)

Pubmed Data : Biosci Biotechnol Biochem. 2007 Jan;71(1):206-14. Epub 2007 Jan 7. PMID: [17213668](#)

Article Published Date : Jan 01, 2007

Authors : Fumiki Aoki, Shinichi Honda, Hideyuki Kishida, Mitsuaki Kitano, Naoki Arai, Hozumi Tanaka, Shinichi Yokota, Kaku Nakagawa, Tomiko Asakura, Yuji Nakai, Tatsumasa Mae

Study Type : Animal Study

Additional Links

Substances : [Licorice : CK\(181\) : AC\(79\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Ginger

[Ginger has a beneficial effect on fructose induced hyperlipidemia an dhyperinsulinemia in rats. - GMI Summary](#)

Pubmed Data : Indian J Exp Biol. 2005 Dec;43(12):1161-4. PMID: [16359128](#)

Article Published Date : Dec 01, 2005

Authors : Sanjay V Kadnur, Ramesh K Goyal

Study Type : Animal Study

Additional Links

Substances : [Ginger : CK\(211\) : AC\(73\)](#)

Diseases : [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Hyperinsulinism : CK\(123\) : AC\(35\)](#), [Hyperlipidemia : CK\(403\) : AC\(105\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

[Ginger has a protective effect against the development of metabolic syndrome in high-fat diet-fed rats. - GMI Summary](#)

Pubmed Data : Basic Clin Pharmacol Toxicol. 2009 May;104(5):366-73. PMID: [19413656](#)

Article Published Date : May 01, 2009

Authors : Srinivas Nammi, Satyanarayana Sreemantula, Basil D Roufogalis

Study Type : Animal Study

Additional Links

Substances : [Ginger : CK\(211\) : AC\(73\)](#)

Diseases : [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

[Ginger has a significant lipid lowering effect compared to placebo. - GMI Summary](#)

Pubmed Data : Saudi Med J. 2008 Sep;29(9):1280-4. PMID: [18813412](#)

Article Published Date : Sep 01, 2008

Authors : Reza Alizadeh-Navaei, Fatemeh Roozbeh, Mehrdad Saravi, Mehdi Pouramir, Farzad Jalali, Ali A Moghadamnia

Study Type : Human Study

Additional Links

Substances : [Ginger : CK\(211\) : AC\(73\)](#)

Diseases : [Cholesterol: High : CK\(634\) : AC\(152\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hypercholesterolemia : CK\(692\) : AC\(159\)](#), [Hyperlipidemia : CK\(403\) : AC\(105\)](#)

[Ginger lowers blood pressure through blockade of voltage-dependent calcium channels. - GMI Summary](#)

Pubmed Data : J Cardiovasc Pharmacol. 2005 Jan;45(1):74-80. PMID: [15613983](#)

Article Published Date : Jan 01, 2005

Authors : Muhammad Nabeel Ghayur, Anwarul Hassan Gilani

Study Type : Animal Study

Additional Links

Substances : [Ginger : CK\(211\) : AC\(73\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Antihypertensive Agents : CK\(158\) : AC\(35\)](#), [Calcium Channel Blockers : CK\(78\) : AC\(21\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

Blueberry

[Bioactives in blueberries improve insulin sensitivity in obese, insulin-resistant men and women. - GMI Summary](#)

Pubmed Data : J Nutr. 2010 Aug 19. Epub 2010 Aug 19. PMID: [20724487](#)

Article Published Date : Aug 19, 2010

Authors : April J Stull, Katherine C Cash, William D Johnson, Catherine M Champagne, William T Cefalu

Study Type : Human Study

Additional Links

Substances : [Blueberry : CK\(95\) : AC\(34\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#)

[Blueberries decrease cardiovascular risk factors in obese men and women with metabolic syndrome. - GMI Summary](#)

Pubmed Data : J Nutr. 2010 Sep;140(9):1582-7. Epub 2010 Jul 21. PMID: [20660279](#)

Article Published Date : Sep 01, 2010

Authors : Arpita Basu, Mei Du, Misti J Leyva, Karah Sanchez, Nancy M Betts, Mingyuan Wu, Christopher E Aston, Timothy J Lyons

Study Type : Human Study

Additional Links

Substances : [Blueberry : CK\(95\) : AC\(34\)](#)

Diseases : [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Obesity :](#)

[CK\(963\) : AC\(251\)](#)

Pharmacological Actions : [Hypotensive : CK\(239\) : AC\(45\)](#)

[Blueberry consumption may have a positive effect on blood pressure through the modulation of arterial contraction.](#) - GMI Summary

Pubmed Data : J Nutr Biochem. 2010 Jan;21(1):14-22. Epub 2009 Jan 20. PMID: [19157824](#)

Article Published Date : Jan 01, 2010

Authors : Anastasia Z Kalea, Kateryna Clark, Dale A Schuschke, Aleksandra S Kristo, Dorothy J Klimis-Zacas

Study Type : Animal Study

Additional Links

Substances : [Blueberry : CK\(95\) : AC\(34\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

EPA (Eicosapentaenoic Acid)

[Eicosapentaenoic acid may have a therapeutic role in attenuating pulmonary hypertension.](#) - GMI Summary

Pubmed Data : Eur J Pharmacol. 2010 Jun 25;636(1-3):108-13. Epub 2010 Mar 27. PMID: [20347779](#)

Article Published Date : Jun 25, 2010

Authors : Thakur Uttam Singh, Kandasamy Kathirvel, Soumen Choudhury, Satish Kumar Garg, Santosh Kumar Mishra

Study Type : Animal Study

Additional Links

Substances : [EPA \(Eicosapentaenoic Acid\) : CK\(432\) : AC\(85\)](#)

Diseases : [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Pulmonary Hypertension : CK\(108\) : AC\(34\)](#)

Pharmacological Actions : [Nitric Oxide Enhancer : CK\(126\) : AC\(32\)](#)

[Omega 3 fatty acids induce a marked reduction of apolipoprotein B48 when added to fluvastatin in patients with type 2 diabetes and mixed hyperlipidemia.](#) - GMI Summary

Pubmed Data : Genes Cancer. 2010 Aug 1;1(8):868-876. PMID: [19133114](#)

Article Published Date : Aug 01, 2010

Authors : Pedro Valdivielso, José Rioja, Carlota García-Arias, Miguel Angel Sánchez-Chaparro, Pedro González-Santos

Study Type : Human Study

Additional Links

Substances : [DHA \(Docosahexaenoic Acid\) : CK\(430\) : AC\(99\)](#), [EPA \(Eicosapentaenoic Acid\) : CK\(432\) : AC\(85\)](#)

Diseases : [Apolipoprotein Disorders : CK\(28\) : AC\(9\)](#), [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Antihypertensive Agents : CK\(158\) : AC\(35\)](#), [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

Additional Keywords : [Drug-Plant-Vitamin Synergies : CK\(816\) : AC\(275\)](#)

[Omega-3 fatty acids alleviate insulin resistance and fatty liver in obese mice.](#) - GMI Summary

Pubmed Data : Int Urol Nephrol. 2004;36(4):591-8. PMID: [19211925](#)

Article Published Date : Jan 01, 2004

Authors : Ana González-Pérez, Raquel Horrillo, Natàlia Ferré, Karsten Gronert, Baiyan Dong, Eva Morán-Salvador, Esther Titos, Marcos Martínez-Clemente, Marta López-Parra, Vicente Arroyo, Joan Clària

Study Type : Animal Study

Additional Links

Substances : [DHA \(Docosahexaenoic Acid\) : CK\(430\) : AC\(99\)](#), [EPA \(Eicosapentaenoic Acid\) : CK\(432\) : AC\(85\)](#), [Omega-3 Fatty Acids : CK\(1938\) : AC\(318\)](#)

Diseases : [Adiponectin: Low Levels : CK\(75\) : AC\(25\)](#), [Fatty Liver : CK\(449\) : AC\(109\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Pharmacological Actions : [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

[Omega-3 fatty acids compares favorably with rosiglitazone for improving insulin sensitivity in mice fed a high-fat diet.](#) - GMI Summary

Pubmed Data : Diabetologia. 2009 May;52(5):941-51. Epub 2009 Mar 11. PMID: [19277604](#)

Article Published Date : May 01, 2009

Authors : O Kuda, T Jelenik, Z Jilkova, P Flachs, M Rossmeisl, M Hensler, L Kazdova, N Ogston, M Baranowski, J Gorski, P Janovska, V Kus, J Polak, V Mohamed-Ali, R Burcelin, S Cinti, M Bryhn, J Kopecky

Study Type : Animal Study

Additional Links

Substances : [DHA \(Docosahexaenoic Acid\) : CK\(430\) : AC\(99\)](#), [EPA \(Eicosapentaenoic Acid\) : CK\(432\) : AC\(85\)](#), [Omega-3 Fatty Acids : CK\(1938\) : AC\(318\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

Additional Keywords : [Drug: Rosiglitazone : CK\(14\) : AC\(5\)](#), [Drug-Plant-Vitamin Synergies : CK\(816\) : AC\(275\)](#)

Carnitine

[G. cambogia extract, soy peptide, and L-carnitine attenuated visceral fat accumulation and improved dyslipidemia in a rat model with high fat diet-induced obesity.](#) - GMI Summary

Pubmed Data : Genes Nutr. 2008 Feb;2(4):353-8. PMID: [18850230](#)

Article Published Date : Feb 01, 2008

Authors : [No authors listed]

Study Type : Animal Study

Additional Links

Substances : [Carnitine : CK\(285\) : AC\(67\)](#), [Garcinia cambogia : CK\(6\) : AC\(4\)](#), [L-Carnitine : CK\(3\) : AC\(1\)](#), [Soy Protein : CK\(245\) : AC\(56\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

[L-carnitine may reduce lipid overload and insulin resistance in diabetics.](#) - GMI Summary

Pubmed Data : Diabetologia. 2007 Apr;50(4):824-32. Epub 2007 Feb 20. PMID: [17310372](#)

Article Published Date : Apr 01, 2007

Authors : R A Power, M W Hulver, J Y Zhang, J Dubois, R M Marchand, O Ilkayeva, D M Muoio, R L Mynatt

Study Type : Animal Study

Additional Links

Substances : [Carnitine : CK\(285\) : AC\(67\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

[L-carnitine reduces lipid-induced insulin resistance in diabetic rats.](#) - GMI Summary

Pubmed Data : Microbiol Immunol. 1997;41(12):1005-9. PMID: [17310372](#)

Article Published Date : Jan 01, 1997

Authors : R A Power, M W Hulver, J Y Zhang, J Dubois, R M Marchand, O Ilkayeva, D M Muoio, R L Mynatt

Study Type : Animal Study

Additional Links

Substances : [Carnitine : CK\(285\) : AC\(67\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Daidzein

[Dietary soy protein isolate attenuates metabolic syndrome in rats.](#) - GMI Summary

Pubmed Data : J Nutr. 2009 Aug;139(8):1431-8. Epub 2009 Jun 10. PMID: [19515742](#)

Article Published Date : Aug 01, 2009

Authors : Martin J Ronis, Ying Chen, Jamie Badeaux, Thomas M Badger

Study Type : Animal Study

Additional Links

Substances : [Daidzein : CK\(76\) : AC\(27\)](#), [Genistein : CK\(395\) : AC\(169\)](#), [Isoflavones : CK\(428\) : AC\(122\)](#), [Soy Protein : CK\(245\) : AC\(56\)](#)

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Pharmacological Actions : [Anticholesteremic Agents : CK\(180\) : AC\(38\)](#)

[Isoflavonoids and peptides from meju, long-term fermented soybeans, increase insulin sensitivity and exert insulinotropic effects in vitro.](#) - GMI Summary

Pubmed Data : Nutrition. 2011 Feb;27(2):244-52. Epub 2010 Jun 11. PMID: [20541368](#)

Article Published Date : Feb 01, 2011

Authors : Dae Young Kwon, Sang Mee Hong, Il Sung Ahn, Min Jung Kim, Hye Jeong Yang, Sunmin Park

Study Type : In Vitro Study

Additional Links

Substances : [Daidzein : CK\(76\) : AC\(27\)](#), [Genistein : CK\(395\) : AC\(169\)](#), [Isoflavones : CK\(428\) : AC\(122\)](#), [Soy : CK\(1229\) : AC\(332\)](#), [Soy: Fermented : CK\(69\) : AC\(23\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Pharmacological Actions : [Glucagon Like peptide 1 \(GLP-1\) Up-regulation : CK\(129\) : AC\(30\)](#), [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#), [Insulinotropic : CK\(15\) : AC\(7\)](#)

Quercetin

[Polyphenols may have therapeutic value in a variety of diseases through modulating AMP-activated protein kinase which reduce fatty acid and cholesterol synthesis and gluconeogenesis.](#) - GMI Summary

Pubmed Data : N Biotechnol.2009 Oct 1;26(1-2):17-22. Epub 2009 Apr 2. PMID: [19818314](#)

Article Published Date : Oct 01, 2009

Authors : Jin-Taek Hwang, Dae Young Kwon, Suk Hoo Yoon

Study Type : Commentary

Additional Links

Substances : [Berberine : CK\(132\) : AC\(67\)](#), [EGCG \(Epigallocatechin gallate\) : CK\(183\) : AC\(114\)](#), [Polyphenols : CK\(382\) : AC\(170\)](#), [Quercetin : CK\(265\) : AC\(134\)](#), [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [Diabetes Mellitus: Type 1 : CK\(743\) : AC\(207\)](#), [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Obesity : CK\(963\) : AC\(251\)](#)
Pharmacological Actions : [AMP-activated protein kinase modulation : CK\(2\) : AC\(2\)](#), [Gluconeogenesis Inhibitor : CK\(26\) : AC\(14\)](#)

[Quercetin ameliorates metabolic syndrome in obese rats.](#) - GMI Summary

Pubmed Data : Obesity (Silver Spring). 2008 Sep;16(9):2081-7. PMID: [18551111](#)

Article Published Date : Sep 01, 2008

Authors : Leonor Rivera, Rocío Morón, Manuel Sánchez, Antonio Zarzuelo, Milagros Galisteo

Study Type : Animal Study

Additional Links

Substances : [Quercetin : CK\(265\) : AC\(134\)](#)

Diseases : [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

[Quercetin reduced systolic blood pressure and plasma oxidised LDL concentrations in overweight subjects with a high-cardiovascular risk phenotype.](#) - GMI Summary

Pubmed Data : Br J Nutr. 2009 Oct;102(7):1065-74. Epub 2009 Apr 30. PMID: [19402938](#)

Article Published Date : Oct 01, 2009

Authors : Sarah Egert, Anja Bosity-Westphal, Jasmin Seiberl, Claudia Kürbitz, Uta Settler, Sandra Plachta-Danielzik, Anika E Wagner, Jan Frank, Jürgen Schrezenmeir, Gerald Rimbach, Siegfried Wolfram, Manfred J Müller

Study Type : Human Study

Additional Links

Substances : [Quercetin : CK\(265\) : AC\(134\)](#)

Diseases : [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [Cholesterol: Oxidation : CK\(329\) : AC\(96\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Overweight : CK\(367\) : AC\(82\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Hypolipidemic : CK\(282\) : AC\(75\)](#)

[Sprouting buckwheat triggers a variety of nutritional changes increasing hypocholesterolemic, hypotriglyceridemic, and antioxidative activities.](#) - GMI Summary

Pubmed Data : J Agric Food Chem. 2008 Feb 27;56(4):1216-23. Epub 2008 Jan 24. PMID: [18217700](#)

Article Published Date : Feb 27, 2008

Authors : Li-Yun Lin, Chiung-Chi Peng, Ya-Lu Yang, Robert Y Peng

Study Type : In Vitro Study

Additional Links

Substances : [Buckwheat : CK\(50\) : AC\(16\)](#), [Flavonoids : CK\(732\) : AC\(287\)](#), [Polyphenols : CK\(382\) : AC\(170\)](#), [Quercetin : CK\(265\) : AC\(134\)](#), [Rutin : CK\(75\) : AC\(29\)](#), [Sprouts : CK\(72\) : AC\(35\)](#), [Vitamin C : CK\(817\) : AC\(234\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hyperlipidemia : CK\(403\) : AC\(105\)](#), [Triglycerides: Elevated : CK\(227\) : AC\(64\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Hypolipidemic : CK\(282\) : AC\(75\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

Chickpea

[Dietary chickpeas reverse visceral adiposity, dyslipidaemia and insulin resistance in rats induced by a chronic high-fat diet.](#) - GMI Summary

Pubmed Data : Lupus. 2009 Mar;18(3):206-15. PMID: [17666145](#)

Article Published Date : Mar 01, 2009

Authors : Ying Yang, Libin Zhou, Yuanjun Gu, Yibo Zhang, Jingfeng Tang, Fengying Li, Wenbin Shang, Boren Jiang, Xiaohua Yue, Mingdao Chen

Study Type : Animal Study

Additional Links

Substances : [Chickpea : CK\(36\) : AC\(9\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Leptin: Elevated Levels : CK\(19\) : AC\(9\)](#)

Noni

[Noni fruit, leaves and root extracts have anti-dyslipidemic properties.](#) - GMI Summary

Pubmed Data : Lipids Health Dis. 2010;9:88. Epub 2010 Aug 20. PMID: [20727145](#)

Article Published Date : Jan 01, 2010

Authors : Saf-ur Rehman Mandukhail, Nauman Aziz, Anwarul-Hassan Gilani

Study Type : Animal Study

Additional Links

Substances : [Noni : CK\(74\) : AC\(34\)](#)

Diseases : [Cholesterol: LDL/HDL ratio : CK\(287\) : AC\(52\)](#), [Dyslipidemias : CK\(157\) : AC\(29\)](#), [HDL: Low : CK\(195\) : AC\(48\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Hypolipidemic : CK\(282\) : AC\(75\)](#)

[Noni has antispasmodic and vasodilator effects.](#) - GMI Summary

Pubmed Data : BMC Complement Altern Med. 2010 Jan 13;10(1):2. Epub 2010 Jan 13. PMID: [20070879](#)

Article Published Date : Jan 13, 2010

Authors : Anwarul Hassan Gilani, Saf-Ur-Rehman Mandukhail, Javeid Iqbal, Masoom Yasinzai, Nauman Aziz, Aslam Khan, Najeeb-Ur -Rehman

Study Type : Animal Study

Additional Links

Substances : [Noni : CK\(74\) : AC\(34\)](#)

Diseases : [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Antispasmodic : CK\(99\) : AC\(28\)](#), [Calcium Channel Blockers : CK\(78\) : AC\(21\)](#), [Vasodilator Agents : CK\(223\) : AC\(50\)](#)

Vaccenic acid

[Butter naturally enriched with conjugated linoleic acid and vaccenic acid has a beneficial effect on serum fatty acid composition in growing pigs.](#) - GMI Summary

Pubmed Data : Lipids Health Dis. 2008;7:31. Epub 2008 Aug 29. PMID: [18759970](#)

Article Published Date : Jan 01, 2008

Authors : Anna Haug, Per Sjøgren, Nina Hølland, Hanne Müller, Nils P Kjos, Ole Taugbøl, Nina Fjerdingby, Anne S Biong, Eirik Selmer-Olsen, Odd M Harstad

Study Type : Animal Study

Additional Links

Substances : [Butter : CK\(54\) : AC\(14\)](#), [CLA \(Conjugated Linoleic Acid\) : CK\(68\) : AC\(26\)](#), [Vaccenic acid : CK\(29\) : AC\(10\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

Vaccenic acid favourably alters immune function in obese rats. - GMI Summary

Pubmed Data : Br J Nutr. 2009 Aug;102(4):526-36. Epub 2009 Feb 16. PMID: [19216829](#)

Article Published Date : Aug 01, 2009

Authors : Heather J Blewett, Christopher A Gerdung, Megan R Ruth, Spencer D Proctor, Catherine J Field

Study Type : Animal Study

Additional Links

Substances : [Vaccenic acid : CK\(29\) : AC\(10\)](#)

Diseases : [Immune Disorders: Low Immune Function : CK\(367\) : AC\(108\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Pharmacological Actions : [Immunomodulatory : CK\(457\) : AC\(142\)](#)

Vaccenic acid reduces blood lipids in rats, including a 40% decrease in triglycerides. - GMI Summary

Pubmed Data : J Nutr. 2008 Nov;138(11):2117-22. PMID: [18936207](#)

Article Published Date : Nov 01, 2008

Authors : Ye Wang, Jing Lu, Megan R Ruth, Sue D Goruk, Martin J Reaney, David R Glimm, Donna F Vine, Catherine J Field, Spencer D Proctor

Study Type : Animal Study

Additional Links

Substances : [Vaccenic acid : CK\(29\) : AC\(10\)](#)

Diseases : [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Triglycerides: Elevated : CK\(227\) : AC\(64\)](#)

Pharmacological Actions : [Hypolipidemic : CK\(282\) : AC\(75\)](#)

Vaccenic acid reduces liver lipid production and chylomicron secretion in rats. - GMI Summary

Pubmed Data : J Nutr. 2009 Nov;139(11):2049-54. Epub 2009 Sep 16. PMID: [19759243](#)

Article Published Date : Nov 01, 2009

Authors : Ye Wang, M Miriam Jacome-Sosa, Megan R Ruth, Sue D Goruk, Martin J Reaney, David R Glimm, David C Wright, Donna F Vine, Catherine J Field, Spencer D Proctor

Study Type : Animal Study

Additional Links

Substances : [Vaccenic acid : CK\(29\) : AC\(10\)](#)

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [Hyperlipidemia : CK\(403\) : AC\(105\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Pharmacological Actions : [Hypolipidemic : CK\(282\) : AC\(75\)](#)

High Fructose Corn Syrup

High fructose corn syrup may contribute to the pathogenesis of nonalcoholic fatty liver disease (NAFLD). - GMI Summary

Pubmed Data : Obesity (Silver Spring). 2009 Nov;17(11):2003-13. Epub 2009 Mar 12. PMID: [19282820](#)

Article Published Date : Nov 01, 2009

Authors : Kate S Collison, Soad M Saleh, Razan H Bakheet, Rana K Al-Rabiah, Angela L Inglis, Nadine J Makhoul, Zakia M Maqbool, Marya Zia Zaidi, Mohammed A Al-Johi, Futwan A Al-Mohanna

Study Type : In Vitro Study

Additional Links

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Nonalcoholic fatty liver disease \(NAFLD\) : CK\(50\) : AC\(16\)](#), [Oxidative Stress : CK\(1631\) : AC\(660\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#), [High Fructose Corn Syrup : CK\(47\) : AC\(9\)](#)

Other : [Hepatotoxic : CK\(95\) : AC\(34\)](#)

[High Fructose Corn Syrup may promote hepatic steatosis, whereas dietary Monosodium Glutamate \(MSG\) induces dyslipidemia and markers of insulin resistance.](#) - GMI Summary

Pubmed Data : Obesity (Silver Spring). 2010 Jan 28. Epub 2010 Jan 28. PMID: [20111022](#)

Article Published Date : Jan 28, 2010

Authors : Kate S Collison, Zakia M Maqbool, Angela L Inglis, Nadine J Makhoul, Soad M Saleh, Razan H Bakheet, Mohammed A Al-Johi, Rana K Al-Rabiah, Marya Z Zaidi, Futwan A Al-Mohanna

Study Type : Animal Study

Additional Links

Diseases : [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Fatty Liver : CK\(449\) : AC\(109\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Problem Substances : [High Fructose Corn Syrup : CK\(47\) : AC\(9\)](#), [Monosodium Glutamate \(MSG\) : CK\(39\) : AC\(12\)](#)

[Soft drinks consumption \(fructose\) and nonalcoholic fatty liver disease.](#) - GMI Summary

Pubmed Data : World J Gastroenterol. 2010 Jun 7;16(21):2579-88. PMID: [20518077](#)

Article Published Date : Jun 07, 2010

Authors : William Nseir, Fares Nassar, Nimer Assy

Study Type : Review

Additional Links

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Liver Stress: Fructose-Induced : CK\(21\) : AC\(10\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Nonalcoholic fatty liver disease \(NAFLD\) : CK\(50\) : AC\(16\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#), [High Fructose Corn Syrup : CK\(47\) : AC\(9\)](#), [Sugary soda : CK\(91\) : AC\(17\)](#)

Other : [Endocrine Disruptor: Insulin Resistance : CK\(50\) : AC\(18\)](#), [Hepatotoxic : CK\(95\) : AC\(34\)](#)

Statin Drugs

[Atorvastatin increases myocardial indices of oxidative stress in a porcine model of hypercholesterolemia and chronic ischemia.](#) - GMI Summary

Pubmed Data : J Card Surg. 2008 Jul-Aug;23(4):312-20. PMID: [18598320](#)

Article Published Date : Jul 01, 2008

Authors : Neel R Sodha, Munir Boodhwani, Basel Ramlawi, Richard T Clements, Shigetoshi Mieno, Jun Feng, Shu-Hua Xu, Cesario Bianchi, Frank W Sellke

Study Type : Animal Study

Additional Links

Diseases : [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Oxidative Stress : CK\(1631\) : AC\(660\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Statin Drugs : CK\(984\) : AC\(83\)](#)

Other : [Oxidant : CK\(63\) : AC\(23\)](#)

[Atorvastatin reduces serum coenzyme Q10 levels \(reduced and oxidized forms\) in patients with high cholesterol.](#) - GMI Summary

Pubmed Data : J Atheroscler Thromb. 2005;12(2):111-9. PMID: [15942122](#)

Article Published Date : Jan 01, 2005

Authors : Hiroshi Mabuchi, Toshinori Higashikata, Masaaki Kawashiri, Shoji Katsuda, Mihoko Mizuno, Atsushi Nohara, Akihiro Inazu, Junji Koizumi, Junji Kobayashi

Study Type : Human Study

Additional Links

Diseases : [Coenzyme Q10 Deficiency : CK\(42\) : AC\(5\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Statin-Induced Pathologies : CK\(248\) : AC\(40\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Statin Drugs : CK\(984\) : AC\(83\)](#)

[Lovastatin decreases coenzyme Q levels associated with compromised cardiac function in humans. - GMI Summary](#)

Pubmed Data : Proc Natl Acad Sci U S A. 1990 Nov;87(22):8931-4. PMID: [2247468](#)

Article Published Date : Nov 01, 1990

Authors : K Folkers, P Langsjoen, R Willis, P Richardson, L J Xia, C Q Ye, H Tamagawa

Study Type : Human Study

Additional Links

Diseases : [Coronary Artery Disease : CK\(912\) : AC\(131\)](#), [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Statin-Induced Pathologies : CK\(248\) : AC\(40\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Statin Drugs : CK\(984\) : AC\(83\)](#)

Other : [Cardiotoxic : CK\(467\) : AC\(53\)](#)

[Lovastatin enhances the susceptibility of LDL cholesterol to oxidation. - GMI Summary](#)

Pubmed Data : FEBS Lett. 1997 Jun 30;410(2-3):254-8. PMID: [9237640](#)

Article Published Date : Jun 30, 1997

Authors : A Palomäki, K Malminiemi, T Metsä-Ketelä

Study Type : Human Study

Additional Links

Diseases : [Cholesterol: Oxidation : CK\(329\) : AC\(96\)](#), [Coronary Artery Disease : CK\(912\) : AC\(131\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Statin Drugs : CK\(984\) : AC\(83\)](#)

Other : [Cardiotoxic : CK\(467\) : AC\(53\)](#), [Oxidant : CK\(63\) : AC\(23\)](#)

[Simvastatin decreases coenzyme q10 levels in the left ventricle of the heart and skeletal muscle. - GMI Summary](#)

Pubmed Data : Physiol Res. 2007;56 Suppl 2:S49-54. Epub 2007 Sep 5. PMID: [17824807](#)

Article Published Date : Jan 01, 2007

Authors : J Kucharská, A Gvozdjaková, F Simko

Study Type : Animal Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Statin-Induced Pathologies : CK\(248\) : AC\(40\)](#)

Problem Substances : [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(984\) : AC\(83\)](#)

Other : [Cardiotoxic : CK\(467\) : AC\(53\)](#), [Myotoxicity : CK\(44\) : AC\(11\)](#)

[Statin drugs have been demonstrated to increase the rate of breast cancer, hemorrhagic stroke and mortality from noncardiovascular causes including cancer and infections. - GMI](#)

Summary

Pubmed Data : Kardiologija. 2007;47(11):75-85. PMID: [18260968](#)

Article Published Date : Jan 01, 2007

Authors : D V Preobrazhenskii, B A Sidorenko, S A Pataraja, I D Vyshinskaia, O V Borisenko

Study Type : Review

Additional Links

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

Problem Substances : [Pravastatin : CK\(31\) : AC\(4\)](#), [Statin Drugs : CK\(984\) : AC\(83\)](#)

[Statin drugs may induce selenium deficiency which may explain many of its enigmatic side effects.](#) - GMI Summary

Pubmed Data : Lancet. 2004 Mar 13;363(9412):892-4. PMID: [15031036](#)

Article Published Date : Mar 13, 2004

Authors : Bernd Moosmann, Christian Behl

Study Type : Review

Additional Links

Diseases : [Coronary Artery Disease : CK\(912\) : AC\(131\)](#), [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Mineral Deficiencies: Selenium : CK\(15\) : AC\(6\)](#), [Statin-Induced Pathologies : CK\(248\) : AC\(40\)](#)

Additional Keywords : [Statin-Selenium Deficiency : CK\(4\) : AC\(4\)](#)

Problem Substances : [Statin Drugs : CK\(984\) : AC\(83\)](#)

Other : [Myotoxicity : CK\(44\) : AC\(11\)](#)

[Statin drugs reduce coq10 levels which may result in mitochondrial dysfunction and cellular damage.](#) - GMI Summary

Pubmed Data : J Clin Pharmacol. 1993 Mar;33(3):226-9. PMID: [8463436](#)

Article Published Date : Mar 01, 1993

Authors : G Ghirlanda, A Oradei, A Manto, S Lippa, L Uccioli, S Caputo, A V Greco, G P Littarru

Study Type : Human Study

Additional Links

Diseases : [Drug-Induced Toxicity : CK\(482\) : AC\(73\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Myopathies : CK\(94\) : AC\(18\)](#)

Additional Keywords : [Drug-Nutrient Depletion : CK\(64\) : AC\(10\)](#), [Statin-Coq10 Depletion : CK\(36\) : AC\(7\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Pravastatin : CK\(31\) : AC\(4\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(984\) : AC\(83\)](#)

Other : [Cytotoxic : CK\(45\) : AC\(28\)](#)

[Statin therapy contributes to low testosterone and hypogonadism in men with erectile dysfunction](#) - GMI Summary

Pubmed Data : J Sex Med. 2010 Apr;7(4 Pt 1):1547-56. Epub 2010 Feb 5. PMID: [20141585](#)

Article Published Date : Apr 01, 2010

Authors : Giovanni Corona, Valentina Boddi, Giancarlo Balercia, Giulia Rastrelli, Giulia De Vita, Alessandra Sforza, Gianni Forti, Edoardo Mannucci, Mario Maggi

Study Type : Human Study

Additional Links

Diseases : [Erectile Dysfunction : CK\(173\) : AC\(35\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hypogonadism : CK\(26\) :](#)

[AC\(5\)](#), [Statin-Induced Pathologies : CK\(248\) : AC\(40\)](#), [Testosterone: Too Low : CK\(277\) : AC\(65\)](#)

Problem Substances : [Statin Drugs : CK\(984\) : AC\(83\)](#)

Other : [Endocrine Disruptor : CK\(283\) : AC\(56\)](#)

[Statins and fenofibrates may exert their wide range of adverse side effects through interfering with selenoprotein expression.](#) - GMI Summary

Pubmed Data : Trends Cardiovasc Med. 2004 Oct;14(7):273-81. PMID: [15542379](#)

Article Published Date : Oct 01, 2004

Authors : Bernd Moosmann, Christian Behl

Study Type : Review

Additional Links

Diseases : [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Mineral Deficiencies: Selenium : CK\(15\) : AC\(6\)](#), [Statin-Induced Pathologies : CK\(248\) : AC\(40\)](#)

Additional Keywords : [Drug-Nutrient Depletion : CK\(64\) : AC\(10\)](#), [Statin-Selenium Deficiency : CK\(4\) : AC\(4\)](#)

Problem Substances : [Fenofibrates : CK\(66\) : AC\(11\)](#), [Statin Drugs : CK\(984\) : AC\(83\)](#)

Oats

[An oat bran enriched diet improves the lipid profile in patients with an increased coronary heart disease risk. A controlled randomized lifestyle intervention study.](#) - GMI Summary

Pubmed Data : Ann Nutr Metab. 2003;47(6):306-11. PMID: [14520027](#)

Article Published Date : Jan 01, 2003

Authors : Aloys Berg, Daniel König, Peter Deibert, Dominik Grathwohl, Andreas Berg, Manfred W Baumstark, Ingomar-Werner Franz

Study Type : Human Study

Additional Links

Substances : [Oat Bran : CK\(26\) : AC\(8\)](#), [Oats : CK\(168\) : AC\(45\)](#)

Diseases : [Coronary Artery Disease : CK\(912\) : AC\(131\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

[Concentrated oat beta-glucan, a fermentable fiber, lowers serum cholesterol in hypercholesterolemic adults.](#) - GMI Summary

Pubmed Data : Nutr J. 2007;6:6. Epub 2007 Mar 26. PMID: [17386092](#)

Article Published Date : Jan 01, 2007

Authors : Katie M Queenan, Maria L Stewart, Kristen N Smith, William Thomas, R Gary Fulcher, Joanne L Slavin

Study Type : Human Study

Additional Links

Substances : [Beta-glucan : CK\(179\) : AC\(41\)](#), [Fiber : CK\(381\) : AC\(71\)](#), [Oats : CK\(168\) : AC\(45\)](#)

Diseases : [Cholesterol: LDL/HDL ratio : CK\(287\) : AC\(52\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hypercholesterolemia : CK\(692\) : AC\(159\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Hypolipidemic : CK\(282\) : AC\(75\)](#)

[Cookies enriched with psyllium or oat bran lower plasma LDL cholesterol in normal and hypercholesterolemic men.](#) - GMI Summary

Pubmed Data : J Pharmacol Sci. 2007 Aug;104(4):355-65. Epub 2007 Aug 10. PMID: [9853540](#)

Article Published Date : Aug 01, 2007

Authors : A L Romero, J E Romero, S Galaviz, M L Fernandez

Study Type : Human Study

Additional Links

Substances : [Fiber : CK\(381\) : AC\(71\)](#), [Oats : CK\(168\) : AC\(45\)](#), [Psyllium : CK\(97\) : AC\(18\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Hypolipidemic : CK\(282\) : AC\(75\)](#)

[Oat-containing cereal lowers total cholesterol in Hispanic americans.](#) - GMI Summary

Pubmed Data : J Am Diet Assoc. 2005 Jun;105(6):967-70. PMID: [15942550](#)

Article Published Date : Jun 01, 2005

Authors : Wahida Karmally, Maria G Montez, Walter Palmas, Wendy Martinez, Anita Branstetter, Rajasekhar Ramakrishnan, Steve F Holleran, Steven M Haffner, Henry N Ginsberg

Study Type : Human Study

Additional Links

Substances : [Beta-glucan : CK\(179\) : AC\(41\)](#), [Oats : CK\(168\) : AC\(45\)](#)

Diseases : [Cholesterol: LDL/HDL ratio : CK\(287\) : AC\(52\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Anticholesteremic Agents : CK\(180\) : AC\(38\)](#)

[Oat-derived beta-glucan significantly improves HDLC and diminishes LDLC and non-HDL cholesterol in overweight individuals with mild hypercholesterolemia.](#) - GMI Summary

Pubmed Data : Am J Ther. 2007 Mar-Apr;14(2):203-12. PMID: [17414591](#)

Article Published Date : Mar 01, 2007

Authors : Nadia Reyna-Villasmil, Valmore Bermúdez-Pirela, Edgardo Mengual-Moreno, Nelly Arias, Clímaco Cano-Ponce, Elliuz Leal-Gonzalez, Aida Souki, George E Inglett, Zafar H Israili, Rafael Hernández-Hernández, Manuel Valasco, Naikt Arraiz

Study Type : Human Study

Additional Links

Substances : [Beta-glucan : CK\(179\) : AC\(41\)](#), [Oats : CK\(168\) : AC\(45\)](#)

Diseases : [HDL: Low : CK\(195\) : AC\(48\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hypercholesterolemia : CK\(692\) : AC\(159\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Hypolipidemic : CK\(282\) : AC\(75\)](#)

[Oats are unique among the cereal grains in respect to its many therapeutic properties.](#) - GMI Summary

Pubmed Data : Eur J Nutr. 2008 Mar;47(2):68-79. Epub 2008 Feb 26. PMID: [18301937](#)

Article Published Date : Mar 01, 2008

Authors : Masood Sadiq Butt, Muhammad Tahir-Nadeem, Muhammad Kashif Iqbal Khan, Rabia Shabir, Mehmood S Butt

Study Type : Review

Additional Links

Substances : [Beta-glucan : CK\(179\) : AC\(41\)](#), [Fiber : CK\(381\) : AC\(71\)](#), [Oats : CK\(168\) : AC\(45\)](#)

Diseases : [Celiac Disease : CK\(860\) : AC\(134\)](#), [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

[The consumption of oats has significant cholesterol lowering effects in women with hypercholesterolemia.](#) - GMI Summary

Pubmed Data : J Am Diet Assoc. 2001 Nov;101(11):1319-25. PMID: [11716313](#)

Article Published Date : Nov 01, 2001

Authors : L Van Horn, K Liu, J Gerber, D Garside, L Schiffer, N Gernhofer, P Greenland

Study Type : Human Study

Additional Links

Substances : [Oats : CK\(168\) : AC\(45\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Hypolipidemic : CK\(282\) : AC\(75\)](#)

[The LDL-cholesterol lowering effect of oat beta-glucan depends on molecular weight \(size\).](#)

- GMI Summary

Pubmed Data : Am J Clin Nutr. 2010 Oct;92(4):723-32. Epub 2010 Jul 21. PMID: [20660224](#)

Article Published Date : Oct 01, 2010

Authors : Thomas M S Wolever, Susan M Tosh, Alison L Gibbs, Jennie Brand-Miller, Alison M Duncan, Valerie Hart, Benoît Lamarche, Barbara A Thomson, Ruedi Duss, Peter J Wood

Study Type : Human Study

Additional Links

Substances : [Beta-glucan : CK\(179\) : AC\(41\)](#), [Fiber : CK\(381\) : AC\(71\)](#), [Oats : CK\(168\) : AC\(45\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Anticholesteremic Agents : CK\(180\) : AC\(38\)](#)

Beta Blockers

[Beta Blockers, Calcium Channel Blockers, and Angiotensin-Converting Enzyme \(ACE\)](#)

[Inhibitors increase the risk of ischemic stroke in comparison to a Diuretic alone.](#)

Summary

Pubmed Data : Arch Intern Med. 2001 Jan 8;161(1):37-43. PMID: [11146696](#)

Article Published Date : Jan 08, 2001

Authors : O H Klungel, S R Heckbert, W T Longstreth, C D Furberg, R C Kaplan, N L Smith, R N Lemaitre, H G Leufkens, A de Boer, B M Psaty

Study Type : Human Study

Additional Links

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Calcium Channel Blockers : CK\(78\) : AC\(21\)](#)

Problem Substances : [Angiotensin-Converting Enzyme \(ACE\) Inhibitor : CK\(50\) : AC\(5\)](#), [Beta Blockers : CK\(113\) : AC\(11\)](#)

[Beta Blockers, Calcium Channel Blockers, Angiotensin-Converting Enzyme \(ACE\) Inhibitor](#)

[in combination with Diuretics are associated with increased risk for cardiovascular](#)

[mortality versus Diuretics alone.](#)

- GMI Summary

Pubmed Data : JAMA. 2004 Dec 15;292(23):2849-59. PMID: [15598916](#)

Article Published Date : Dec 15, 2004

Authors : Sylvia Wassertheil-Smoller, Bruce Psaty, Philip Greenland, Albert Oberman, Theodore Kotchen, Charles Mouton, Henry Black, Aaron Aragaki, Maurizio Trevisan

Study Type : Human Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Problem Substances : [Angiotensin-Converting Enzyme \(ACE\) Inhibitor : CK\(50\) : AC\(5\)](#), [Beta Blockers : CK\(113\) : AC\(11\)](#)

Other : [Cardiotoxic : CK\(467\) : AC\(53\)](#)

[In patients with moderate to severe portopulmonary hypertension, beta-blockers are associated with significant worsening in exercise capacity and pulmonary hemodynamics.](#)

- GMI Summary

Pubmed Data : Gastroenterology. 2006 Jan;130(1):120-6. PMID: [16401475](#)

Article Published Date : Jan 01, 2006

Authors : Steeve Provencher, Philippe Herve, Xavier Jais, Didier Lebrec, Marc Humbert, Gerald Simonneau, Olivier Sitbon

Study Type : Human Study

Additional Links

Diseases : [Hypertension: Portal : CK\(13\) : AC\(2\)](#), [Pulmonary Hypertension : CK\(108\) : AC\(34\)](#)

Problem Substances : [Beta Blockers : CK\(113\) : AC\(11\)](#)

[The available evidence does not support the use of beta-blockers as a first-line treatment drug for hypertension due to evidence that it may worsen outcome versus other antihypertensives.](#) - GMI Summary

Pubmed Data : Cochrane Database Syst Rev. 2007(1):CD002003. Epub 2007 Jan 24. PMID: [17253471](#)

Article Published Date : Jan 01, 2007

Authors : C S Wiysonge, H Bradley, B M Mayosi, R Maroney, A Mbewu, L H Opie, J Volmink

Study Type : Human Study

Additional Links

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Problem Substances : [Atenolol : CK\(30\) : AC\(3\)](#), [Beta Blockers : CK\(113\) : AC\(11\)](#)

[The use of beta blockers for hypertension is associated with a 28% increase risk of developing diabetes.](#) - GMI Summary

Pubmed Data : N Engl J Med. 2000 Mar 30;342(13):905-12. PMID: [10738048](#)

Article Published Date : Mar 30, 2000

Authors : T W Gress, F J Nieto, E Shahar, M R Wofford, F L Brancati

Study Type : Human Study

Additional Links

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Problem Substances : [Beta Blockers : CK\(113\) : AC\(11\)](#)

Grape Seed Extract

[Grape seed extract reduces blood pressure, a cardiovascular risk marker.](#) - GMI Summary

Pubmed Data : J Am Diet Assoc. 2011 Aug ;111(8):1173-81. PMID: [21802563](#)

Article Published Date : Aug 01, 2011

Authors : Harm H H Feringa, Dayne A Laskey, Justine E Dickson, Craig I Coleman

Study Type : Meta Analysis

Additional Links

Substances : [Grape Seed Extract : CK\(172\) : AC\(57\)](#)

Diseases : [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Cardioprotective : CK\(540\) : AC\(179\)](#), [Hypotensive : CK\(239\) : AC\(45\)](#)

[Grape seed extract significantly improved markers of inflammation and glycaemia and a sole marker of oxidative stress in obese Type 2 diabetic subjects at high risk of cardiovascular events over a 4-week period, which suggests it may have a therapeutic ro - GMI Summary](#)

Pubmed Data : Diabet Med. 2009 May;26(5):526-31. PMID: [19646193](#)

Article Published Date : May 01, 2009

Authors : P Kar, D Laight, H K Rooprai, K M Shaw, M Cummings

Study Type : Human Study

Additional Links

Substances : [Grape Seed Extract : CK\(172\) : AC\(57\)](#)

Diseases : [C-Reactive Protein : CK\(425\) : AC\(72\)](#), [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Obesity : CK\(963\) : AC\(251\)](#), [Oxidative Stress : CK\(1631\) : AC\(660\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#)

Garlic

[Aged garlic extract supplemented with B vitamins, folic acid and L-arginine retards the progression of subclinical atherosclerosis. - GMI Summary](#)

Pubmed Data : Breast Cancer Res Treat. 2004 Feb;83(3):221-31. PMID: [19573556](#)

Article Published Date : Feb 01, 2004

Authors : Matthew J Budoff, Naser Ahmadi, Khawar M Gul, Sandy T Liu, Ferdinand R Flores, Jima Tiano, Junichiro Takasu, Elizabeth Miller, Sotirios Tsimikas

Study Type : Human Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#), [B-complex : CK\(184\) : AC\(32\)](#), [Garlic : CK\(372\) : AC\(142\)](#), [Vitamin B-12 : CK\(492\) : AC\(98\)](#)

Diseases : [Arterial Calcification : CK\(99\) : AC\(21\)](#), [Atherosclerosis : CK\(461\) : AC\(71\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Cardioprotective : CK\(540\) : AC\(179\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

[Aged garlic extract supplemented with B vitamins, folic acid and L-arginine retards the progression of subclinical atherosclerosis. - GMI Summary](#)

Pubmed Data : Prev Med. 2009 Aug-Sep;49(2-3):101-7. Epub 2009 Jun 30. PMID: [19573556](#)

Article Published Date : Aug 01, 2009

Authors : Matthew J Budoff, Naser Ahmadi, Khawar M Gul, Sandy T Liu, Ferdinand R Flores, Jima Tiano, Junichiro Takasu, Elizabeth Miller, Sotirios Tsimikas

Study Type : Human Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#), [B-complex : CK\(184\) : AC\(32\)](#), [Garlic : CK\(372\) : AC\(142\)](#), [Vitamin B-12 : CK\(492\) : AC\(98\)](#)

Diseases : [Atherosclerosis : CK\(461\) : AC\(71\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

Curcumin, capsaicin and garlic attenuate adverse blood changes associated with a cholesterol-enriched diet. - GMI Summary

Pubmed Data : Br J Nutr. 2005 Jan;93(1):81-91. PMID: [15705229](#)

Article Published Date : Jan 01, 2005

Authors : Rayavara K Kempaiah, Krishnapura Srinivasan

Study Type : Animal Study

Additional Links

Substances : [Capsaicin : CK\(44\) : AC\(25\)](#), [Curcumin : CK\(2792\) : AC\(1459\)](#), [Garlic : CK\(372\) : AC\(142\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

Curcumin, capsaicin, and garlic have a beneficial effect in the red blood cells and liver of cholesterol fed rats. - GMI Summary

Pubmed Data : Acta Pharmacol Sin. 2007 Oct;28(10):1559-65. PMID: [15296079](#)

Article Published Date : Oct 01, 2007

Authors : R K Kempaiah, K Srinivasan

Study Type : Animal Study

Additional Links

Substances : [Capsaicin : CK\(44\) : AC\(25\)](#), [Curcumin : CK\(2792\) : AC\(1459\)](#), [Garlic : CK\(372\) : AC\(142\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Cardioprotective : CK\(540\) : AC\(179\)](#), [Hepatoprotective : CK\(580\) : AC\(245\)](#)

Raw and boiled garlic enhances plasma antioxidant activity and improves plasma lipid metabolism in cholesterol-fed rats. - GMI Summary

Pubmed Data : Life Sci. 2006 Jan 2;78(6):655-63. Epub 2005 Sep 13. PMID: [16165163](#)

Article Published Date : Jan 02, 2006

Authors : Shela Gorinstein, Hanna Leontowicz, Maria Leontowicz, Jerzy Drzewiecki, Katarzyna Najman, Elena Katrich, Dinorah Barasch, Kazutaka Yamamoto, Simon Trakhtenberg

Study Type : Animal Study

Additional Links

Substances : [Garlic : CK\(372\) : AC\(142\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#), [Raw versus Cooked : CK\(25\) : AC\(9\)](#)

D-Chiro-Inositol

D-chiro-inositol has a therapeutic effect in lean women with the polycystic ovary syndrome. **- GMI Summary**

Pubmed Data : Endocr Pract. 2002 Nov-Dec;8(6):417-23. PMID: [15251831](#)

Article Published Date : Nov 01, 2002

Authors : Maria J Iuorno, Daniela J Jakubowicz, Jean-Patrice Baillargeon, Pamela Dillon, Ronald D Gunn, Geoffrey Allan, John E Nestler

Study Type : Human Study

Additional Links

Substances : [Buckwheat : CK\(50\) : AC\(16\)](#), [D-Chiro-Inositol : CK\(20\) : AC\(2\)](#), [Inositol : CK\(69\) : AC\(13\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Polycystic Ovary Syndrome : CK\(147\) : AC\(21\)](#)

Inositol

[D-chiro-inositol has a therapeutic effect in lean women with the polycystic ovary syndrome.](#)

- GMI Summary

Pubmed Data : Endocr Pract. 2002 Nov-Dec;8(6):417-23. PMID: [15251831](#)

Article Published Date : Nov 01, 2002

Authors : Maria J luorno, Daniela J Jakubowicz, Jean-Patrice Baillargeon, Pamela Dillon, Ronald D Gunn, Geoffrey Allan, John E Nestler

Study Type : Human Study

Additional Links

Substances : [Buckwheat : CK\(50\) : AC\(16\)](#), [D-Chiro-Inositol : CK\(20\) : AC\(2\)](#), [Inositol : CK\(69\) : AC\(13\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Polycystic Ovary Syndrome : CK\(147\) : AC\(21\)](#)

Dietary Modification: Caloric Restriction

[Caloric restriction ameliorates defective insulin binding to receptors in obese men.](#) - GMI Summary

Pubmed Data : J Clin Invest. 1975 Jan;55(1):166-74. PMID: [1109176](#)

Article Published Date : Jan 01, 1975

Authors : J A Archer, P Gorden, J Roth

Study Type : Human Study

Additional Links

Diseases : [Hyperinsulinism : CK\(123\) : AC\(35\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Therapeutic Actions : [Dietary Modification: Caloric Restriction : CK\(38\) : AC\(9\)](#), [Fasting/Caloric Restriction : CK\(184\) : AC\(49\)](#)

[Long-term intermittent feeding, but not caloric restriction, leads to redox imbalance, insulin receptor nitration, and glucose intolerance.](#) - GMI Summary

Pubmed Data : Free Radic Biol Med. 2011 Jul 21. Epub 2011 Jul 21. PMID: [21816219](#)

Article Published Date : Jul 21, 2011

Authors : Fernanda M Cerqueira, Fernanda M da Cunha, Camille C Caldeira da Silva, Bruno Chausse, Renato L Romano, Camila C M Garcia, Pio Colepicolo, Marisa H G Medeiros, Alicia J Kowaltowski

Study Type : Animal Study

Additional Links

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Therapeutic Actions : [Dietary Modification: Caloric Restriction : CK\(38\) : AC\(9\)](#), [Fasting/Caloric Restriction : CK\(184\) : AC\(49\)](#)

[The vegetarian diet improves insulin resistance and oxidative stress markers more than conventional diet in subjects with Type 2 diabetes.](#) - GMI Summary

Pubmed Data : Diabet Med. 2011 May;28(5):549-59. PMID: [21480966](#)

Article Published Date : May 01, 2011

Authors : H Kahleova, M Matoulek, H Malinska, O Oliyarnik, L Kazdova, T Neskudla, A Skoch, M Hajek, M Hill, M Kahle, T Pelikanova

Study Type : Human Study

Additional Links

Diseases : [Diabetes: Oxidative Stress : CK\(57\) : AC\(17\)](#), [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Therapeutic Actions : [Dietary Modification: Caloric Restriction : CK\(38\) : AC\(9\)](#), [Dietary Modification: Vegetarian : CK\(75\) : AC\(14\)](#)

Alpha-Lipoic Acid

[Controlled-release alpha lipoic acid has a therapeutic effect in lean, nondiabetic patients with polycystic ovary syndrome. - GMI Summary](#)

Pubmed Data : J Diabetes Sci Technol. 2010 Mar;4(2):359-64. Epub 2010 Mar 1. PMID: [20307398](#)

Article Published Date : Mar 01, 2010

Authors : Umesh Masharani, Christine Gjerde, Joseph L Evans, Jack F Youngren, Ira D Goldfine

Study Type : Human Study

Additional Links

Substances : [Alpha-Lipoic Acid : CK\(268\) : AC\(79\)](#)

Diseases : [Hyperinsulinism : CK\(123\) : AC\(35\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Oxidative Stress : CK\(1631\) : AC\(660\)](#), [Polycystic Ovary Syndrome : CK\(147\) : AC\(21\)](#)

[Lipoic acid attenuates hypertension and improves insulin sensitivity in high fructose-fed rats. - GMI Summary](#)

Pubmed Data : J Comp Physiol B. 2004 Nov;174(8):587-92. Epub 2004 Sep 29. PMID: [15565449](#)

Article Published Date : Nov 01, 2004

Authors : V Thirunavukkarasu, A T Anitha Nandhini, C V Anuradha

Study Type : Animal Study

Additional Links

Substances : [Alpha-Lipoic Acid : CK\(268\) : AC\(79\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Additional Keywords : [Fructose-Induced Insulin Resistance : CK\(44\) : AC\(14\)](#)

[R-alpha-lipoic-acid is more effective than alpha-lipoic acid \(S-\(-\)-enantiomer\) in improving glucose metabolism in insulin-resistant skeletal muscle. - GMI Summary](#)

Pubmed Data : Am J Physiol. 1997 Jul;273(1 Pt 1):E185-91. PMID: [9252495](#)

Article Published Date : Jul 01, 1997

Authors : R S Streeper, E J Henriksen, S Jacob, J Y Hokama, D L Fogt, H J Tritschler

Study Type : Animal Study

Additional Links

Substances : [Alpha-Lipoic Acid : CK\(268\) : AC\(79\)](#), [R-alpha lipoic acid : CK\(5\) : AC\(3\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#)

Additional Keywords : [Enantiomer Differences : CK\(3\) : AC\(2\)](#)

Citrulline

[Administration of L-arginine and citrulline to patients improve the condition of heart failure patients with preserved ejection fraction.](#) - GMI Summary

Pubmed Data : Cardiol J. 2010;17(6):612-8. PMID: [21154265](#)

Article Published Date : Jan 01, 2010

Authors : Juan José Orozco-Gutiérrez, Lilia Castillo-Martínez, Arturo Orea-Tejeda, Oscar Vázquez-Díaz, Adrián Valdespino-Trejo, René Narváez-David, Candace Keirns-Davis, Olín Carrasco-Ortiz, Adolfo Navarro-Navarro, Rocío Sánchez-Santillán

Study Type : Human Study

Additional Links

Substances : [Arginine](#) : CK(854) : AC(168), [Citrulline](#) : CK(74) : AC(14)

Diseases : [Heart Failure](#) : CK(452) : AC(85), [Hypertension](#) : CK(1319) : AC(254)

Pharmacological Actions : [Cardiotonic Agents](#) : CK(34) : AC(6)

[Oral L-citrulline supplementation attenuates blood pressure response to cold pressor test in young men.](#) - GMI Summary

Pubmed Data : Am J Hypertens. 2010 Jan;23(1):12-6. Epub 2009 Oct 22. PMID: [19851298](#)

Article Published Date : Jan 01, 2010

Authors : Arturo Figueroa, Julian A Trivino, Marcos A Sanchez-Gonzalez, Florence Vicil

Study Type : Human Study

Additional Links

Substances : [Citrulline](#) : CK(74) : AC(14)

Diseases : [Hypertension](#) : CK(1319) : AC(254)

[Watermelon pomace \(rich in citrulline\) significantly ameliorates the metabolic syndrome in diabetic fatty rats.](#) - GMI Summary

Pubmed Data : J Nutr. 2007 Dec;137(12):2680-5. PMID: [18029483](#)

Article Published Date : Dec 01, 2007

Authors : Guoyao Wu, Julie K Collins, Penelope Perkins-Veazie, Muhammad Siddiq, Kirk D Dolan, Katherine A Kelly, Cristine L Heaps, Cynthia J Meiningner

Study Type : Animal Study

Additional Links

Substances : [Citrulline](#) : CK(74) : AC(14), [Watermelon](#) : CK(40) : AC(9)

Diseases : [Metabolic Syndrome X](#) : CK(376) : AC(97)

Hydrogenated Oil

[Consumption of trans-fatty acids from partially hydrogenated oils adversely affects multiple cardiovascular risk factors and contributes significantly to increased risk of coronary heart disease events.](#) - GMI Summary

Pubmed Data : Eur J Clin Nutr. 2009 May;63 Suppl 2:S5-21. PMID: [19424218](#)

Article Published Date : May 01, 2009

Authors : D Mozaffarian, A Aro, W C Willett

Study Type : Meta Analysis

Additional Links

Diseases : [Coronary Artery Disease](#) : CK(912) : AC(131), [Endothelial Dysfunction](#) : CK(649) : AC(164), [Inflammation](#) : CK(829) : AC(330), [Insulin Resistance](#) : CK(707) : AC(184), [Myocardial Infarction](#) : CK(1773) : AC(112)

Problem Substances : [Hydrogenated Oil : CK\(130\) : AC\(24\)](#), [Trans Fatty Acids : CK\(202\) : AC\(34\)](#)
Other : [Cardiotoxic : CK\(467\) : AC\(53\)](#)

[Review: Trans fatty acids have a wide range of adverse effects on health.](#) - GMI Summary

Pubmed Data : Prostaglandins Leukot Essent Fatty Acids. 2008 Sep-Nov;79(3-5):147-52. Epub 2008 Nov 8. PMID: [18996687](#)

Article Published Date : Sep 01, 2008

Authors : R Micha, D Mozaffarian

Study Type : Review

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Problem Substances : [Hydrogenated Oil : CK\(130\) : AC\(24\)](#)

[The intake of trans fatty acids and risk of coronary heart disease among women.](#) - GMI Summary

Pubmed Data : Lancet. 1993 Mar 6;341(8845):581-5. PMID: [8094827](#)

Article Published Date : Mar 06, 1993

Authors : W C Willett, M J Stampfer, J E Manson, G A Colditz, F E Speizer, B A Rosner, L A Sampson, C H Hennekens

Study Type : Human Study

Additional Links

Diseases : [Coronary Artery Disease : CK\(912\) : AC\(131\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Problem Substances : [Hydrogenated Oil : CK\(130\) : AC\(24\)](#), [Trans Fatty Acids : CK\(202\) : AC\(34\)](#)

Other : [Cardiotoxic : CK\(467\) : AC\(53\)](#)

[Trans fat feeding results in higher serum alanine aminotransferase and increased insulin resistance.](#) - GMI Summary

Pubmed Data : Am J Physiol Gastrointest Liver Physiol. 2009 Aug;297(2):G378-84. Epub 2009 Jun 18. PMID: [19541924](#)

Article Published Date : Aug 01, 2009

Authors : Sean W P Koppe, Marc Elias, Richard H Moseley, Richard M Green

Study Type : Animal Study

Additional Links

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Problem Substances : [Hydrogenated Oil : CK\(130\) : AC\(24\)](#)

Yoga

[Iyengar Yoga results in clinically meaningful reductions in systolic and diastolic blood pressure in patients with Prehypertension to Stage I Hypertension.](#) - GMI Summary

Pubmed Data : Evid Based Complement Alternat Med. 2009 Sep 4. Epub 2009 Sep 4. PMID: [19734256](#)

Article Published Date : Sep 04, 2009

Authors : Debbie L Cohen, Leanne T Bloedon, Rand L Rothman, John T Farrar, Mary Lou Galantino, Sheri Volger, Christine Mayor, Phillippe O Szapary, Raymond R Townsend

Study Type : Animal Study

Additional Links

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#), [Prehypertension : CK\(23\) : AC\(3\)](#)

Therapeutic Actions : [Yoga : CK\(317\) : AC\(67\)](#)

Pharmacological Actions : [Hypotensive : CK\(239\) : AC\(45\)](#)

[Raja yoga meditation lowered serum cholesterol and low-density lipoprotein-cholesterol in post-menopausal women thus reducing the risk of coronary artery disease in them.](#) - GMI

Summary

Pubmed Data : Indian J Physiol Pharmacol. 2008 Oct-Dec;52(4):420-4. PMID: [19585761](#)

Article Published Date : Oct 01, 2008

Authors : Rashmi Vyas, Kanti V Raval, Nirupama Dikshit

Study Type : Human Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Therapeutic Actions : [Meditation : CK\(111\) : AC\(15\)](#), [Yoga : CK\(317\) : AC\(67\)](#)

[Slow- and fast-breathing exercises benefit patients with hypertension.](#) - GMI Summary

Pubmed Data : J Altern Complement Med. 2009 Jul;15(7):711-7. PMID: [19534616](#)

Article Published Date : Jul 01, 2009

Authors : Monika Mourya, Aarti Sood Mahajan, Narinder Pal Singh, Ajay K Jain

Study Type : Human Study

Additional Links

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Therapeutic Actions : [Yoga : CK\(317\) : AC\(67\)](#)

[Yoga lifestyle intervention reduces blood pressure in HIV-infected adults with cardiovascular disease risk factors.](#) - GMI Summary

Pubmed Data : HIV Med. 2010 Jan 5. Epub 2010 Jan 5. PMID: [20059570](#)

Article Published Date : Jan 05, 2010

Authors : W T Cade, D N Reeds, K E Mondy, E T Overton, J Grassino, S Tucker, C Bopp, E Laciny, S Hubert, S Lassa-Claxton, K E Yarasheski

Study Type : Human Study

Additional Links

Diseases : [HIV Infections : CK\(387\) : AC\(183\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Therapeutic Actions : [Yoga : CK\(317\) : AC\(67\)](#)

Pharmacological Actions : [Hypotensive : CK\(239\) : AC\(45\)](#)

Trans Fatty Acids

[Consumption of trans-fatty acids from partially hydrogenated oils adversely affects multiple cardiovascular risk factors and contributes significantly to increased risk of coronary heart disease events.](#) - GMI Summary

Pubmed Data : Eur J Clin Nutr. 2009 May;63 Suppl 2:S5-21. PMID: [19424218](#)

Article Published Date : May 01, 2009

Authors : D Mozaffarian, A Aro, W C Willett

Study Type : Meta Analysis

Additional Links

Diseases : [Coronary Artery Disease](#) : CK(912) : AC(131), [Endothelial Dysfunction](#) : CK(649) : AC(164), [Inflammation](#) : CK(829) : AC(330), [Insulin Resistance](#) : CK(707) : AC(184), [Myocardial Infarction](#) : CK(1773) : AC(112)

Problem Substances : [Hydrogenated Oil](#) : CK(130) : AC(24), [Trans Fatty Acids](#) : CK(202) : AC(34)

Other : [Cardiotoxic](#) : CK(467) : AC(53)

[Saturated fat \(trans fatty acids\) and fructose play a role in the pathogenesis of nonalcoholic fatty liver disease.](#) - GMI Summary

Pubmed Data : Annu Rev Pathol. 2010;5:145-71. PMID: [20078219](#)

Article Published Date : Jan 01, 2010

Authors : Dina G Tiniakos, Miriam B Vos, Elizabeth M Brunt

Study Type : Animal Study

Additional Links

Diseases : [Fatty Liver](#) : CK(449) : AC(109), [Fructose-Induced Toxicity](#) : CK(129) : AC(41), [Insulin Resistance](#) : CK(707) : AC(184), [Liver Stress: Fructose-Induced](#) : CK(21) : AC(10), [Nonalcoholic fatty liver disease \(NAFLD\)](#) : CK(50) : AC(16), [Obesity](#) : CK(963) : AC(251)

Problem Substances : [Fructose](#) : CK(304) : AC(85), [Trans Fatty Acids](#) : CK(202) : AC(34)

Other : [Hepatotoxic](#) : CK(95) : AC(34)

[The intake of trans fatty acids and risk of coronary heart disease among women.](#) - GMI Summary

Pubmed Data : Lancet. 1993 Mar 6;341(8845):581-5. PMID: [8094827](#)

Article Published Date : Mar 06, 1993

Authors : W C Willett, M J Stampfer, J E Manson, G A Colditz, F E Speizer, B A Rosner, L A Sampson, C H Hennekens

Study Type : Human Study

Additional Links

Diseases : [Coronary Artery Disease](#) : CK(912) : AC(131), [Hypertension](#) : CK(1319) : AC(254)

Problem Substances : [Hydrogenated Oil](#) : CK(130) : AC(24), [Trans Fatty Acids](#) : CK(202) : AC(34)

Other : [Cardiotoxic](#) : CK(467) : AC(53)

Fasting/Caloric Restriction

[Caloric restriction ameliorates defective insulin binding to receptors in obese men.](#) - GMI Summary

Pubmed Data : J Clin Invest. 1975 Jan;55(1):166-74. PMID: [1109176](#)

Article Published Date : Jan 01, 1975

Authors : J A Archer, P Gorden, J Roth

Study Type : Human Study

Additional Links

Diseases : [Hyperinsulinism](#) : CK(123) : AC(35), [Insulin Resistance](#) : CK(707) : AC(184)

Therapeutic Actions : [Dietary Modification: Caloric Restriction](#) : CK(38) : AC(9), [Fasting/Caloric Restriction](#) : CK(184) : AC(49)

[Dietary restriction is associated with improved skeletal muscle insulin sensitivity in rats.](#) - GMI Summary

Pubmed Data : Br J Nutr. 2010 Jul;104(1):76-82. Epub 2010 Feb 24. PMID: [20178670](#)

Article Published Date : Jul 01, 2010

Authors : Joana Crisóstomo, Lisa Rodrigues, Paulo Matafome, Carmen Amaral, Elsa Nunes, Teresa Louro, Pedro Monteiro, Raquel Seica

Study Type : Animal Study

Additional Links

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Inflammation : CK\(829\) : AC\(330\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Therapeutic Actions : [Fasting/Caloric Restriction : CK\(184\) : AC\(49\)](#)

[Holy basil \(*O. sanctum*\) prevents insulin resistance induced through a fructose-fed diet in rats. - GMI Summary](#)

Pubmed Data : Horm Metab Res. 2008 Jan;40(1):44-9. Epub 2007 Dec 18. PMID: [18085503](#)

Article Published Date : Jan 01, 2008

Authors : S S Reddy, R Karuna, R Baskar, D Saralakumari

Study Type : Animal Study

Additional Links

Substances : [Holy Basil : CK\(59\) : AC\(26\)](#)

Diseases : [Fructose-Induced Toxicity : CK\(129\) : AC\(41\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Therapeutic Actions : [Fasting/Caloric Restriction : CK\(184\) : AC\(49\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

[Long-term intermittent feeding, but not caloric restriction, leads to redox imbalance, insulin receptor nitration, and glucose intolerance. - GMI Summary](#)

Pubmed Data : Free Radic Biol Med. 2011 Jul 21. Epub 2011 Jul 21. PMID: [21816219](#)

Article Published Date : Jul 21, 2011

Authors : Fernanda M Cerqueira, Fernanda M da Cunha, Camille C Caldeira da Silva, Bruno Chausse, Renato L Romano, Camila C M Garcia, Pio Colepicolo, Marisa H G Medeiros, Alicia J Kowaltowski

Study Type : Animal Study

Additional Links

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Therapeutic Actions : [Dietary Modification: Caloric Restriction : CK\(38\) : AC\(9\)](#), [Fasting/Caloric Restriction : CK\(184\) : AC\(49\)](#)

Sugar Sweetened Beverages

[Higher sugar-sweetened beverage consumption is associated with higher serum uric acid levels and systolic blood pressure in US adolescents. - GMI Summary](#)

Pubmed Data : J Pediatr. 2009 Jun;154(6):807-13. Epub 2009 Apr 17. PMID: [19375714](#)

Article Published Date : Jun 01, 2009

Authors : Stephanie Nguyen, Hyon K Choi, Robert H Lustig, Chi-yuan Hsu

Study Type : Human Study

Additional Links

Diseases : [Adolescent Diseases : CK\(25\) : AC\(3\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Hyperuricemia : CK\(137\) : AC\(31\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#), [Sugar Sweetened Beverages : CK\(40\) : AC\(6\)](#), [Sugary soda : CK\(91\) : AC\(17\)](#)

[The consumption of fructose-containing sugar-sweetened beverage is associated with a more atherogenic LDL lipid profile.](#) - GMI Summary

Pubmed Data : Am J Clin Nutr. 2011 Jun 15. Epub 2011 Jun 15. PMID: [21677052](#)

Article Published Date : Jun 15, 2011

Authors : Isabelle Aeberli, Philipp A Gerber, Michel Hochuli, Sibylle Kohler, Sarah R Haile, Ioanna Gouni-Berthold, Heiner K Berthold, Giatgen A Spinass, Kaspar Berneis

Study Type : Human Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [Dyslipidemias : CK\(157\) : AC\(29\)](#)

Problem Substances : [Fructose : CK\(304\) : AC\(85\)](#), [Sugar Sweetened Beverages : CK\(40\) : AC\(6\)](#), [Sugary soda : CK\(91\) : AC\(17\)](#)

Other : [Atherogenic : CK\(11\) : AC\(2\)](#), [Cardiotoxic : CK\(467\) : AC\(53\)](#)

Tai Chi

[Tai Chi and Qigong medical exercise improves indicators of metabolic syndrome and glycemic control in adults with raised blood glucose levels.](#) - GMI Summary

Pubmed Data : Br J Sports Med. 2009 Nov;43(11):840-4. Epub 2008 Apr 2. PMID: [20547669](#)

Article Published Date : Nov 01, 2009

Authors : [No authors listed]

Study Type : Human Study

Additional Links

Diseases : [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Therapeutic Actions : [Qigong : CK\(136\) : AC\(23\)](#), [Tai Chi : CK\(293\) : AC\(40\)](#)

[Tai Chi has a beneficial effect on blood pressure in older people.](#) - GMI Summary

Pubmed Data : J Am Geriatr Soc. 1999 Mar;47(3):277-84. PMID: [10078888](#)

Article Published Date : Mar 01, 1999

Authors : D R Young, L J Appel, S Jee, E R Miller

Study Type : Human Study

Additional Links

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Therapeutic Actions : [Tai Chi : CK\(293\) : AC\(40\)](#)

Vegetables: All

[A diet high in plant sterols, vegetable proteins, viscous fibers and almonds is as effective as the statin drug lovastatin in managing hypercholesterolemia.](#) - GMI Summary

Pubmed Data : JAMA. 2003 Jul 23;290(4):502-10. PMID: [12876093](#)

Article Published Date : Jul 23, 2003

Authors : David J A Jenkins, Cyril W C Kendall, Augustine Marchie, Dorothea A Faulkner, Julia M W Wong, Russell de Souza, Azadeh Emam, Tina L Parker, Edward Vidgen, Karen G Lapsley, Elke A Trautwein, Robert G Josse, Lawrence A Leiter, Philip W Connelly

Study Type : Human Study

Additional Links

Substances : [Almond](#) : CK(48) : AC(11), [Fiber](#) : CK(381) : AC(71), [Vegetables: All](#) : CK(373) : AC(69)
Diseases : [C-Reactive Protein](#) : CK(425) : AC(72), [High Cholesterol](#) : CK(865) : AC(192), [Hyperlipidemia](#) : CK(403) : AC(105)
Pharmacological Actions : [Anticholesteremic Agents](#) : CK(180) : AC(38)
Additional Keywords : [Natural Substances Versus Drugs](#) : CK(832) : AC(164)

[Dietary intake of fruits and vegetables improves microvascular function in hypertensive subjects in a dose-dependent manner.](#) - GMI Summary

Pubmed Data : Circulation. 2009 Apr 28;119(16):2153-60. Epub 2009 Apr 13. PMID: [19364976](#)

Article Published Date : Apr 28, 2009

Authors : Damian O McCall, Claire P McGartland, Michelle C McKinley, Chris C Patterson, Peter Sharpe, David R McCance, Ian S Young, Jayne V Woodside

Study Type : Human Study

Additional Links

Substances : [Fruit: All](#) : CK(1435) : AC(442), [Vegetables: All](#) : CK(373) : AC(69)

Diseases : [Endothelial Dysfunction](#) : CK(649) : AC(164), [Hypertension](#) : CK(1319) : AC(254)

[Fruit and vegetable consumption has a beneficial effect on cardiovascular health by positively influencing plasma antioxidants and blood pressure.](#) - GMI Summary

Pubmed Data : Cancer Lett. 2004 May 28;208(2):163-70. PMID: [12076551](#)

Article Published Date : May 28, 2004

Authors : J H John, S Ziebland, P Yudkin, L S Roe, H A W Neil,

Study Type : Human Study

Additional Links

Substances : [Fruit: All](#) : CK(1435) : AC(442), [Vegetables: All](#) : CK(373) : AC(69)

Diseases : [Cardiovascular Diseases](#) : CK(3633) : AC(602), [Hypertension](#) : CK(1319) : AC(254)

Selenium

[A low calorie diet enriched with legumes, L-arginine and selenium reduces abdominal obesity in premenopausal women.](#) - GMI Summary

Pubmed Data : J Res Med Sci. 2010 Nov;15(6):331-43. PMID: [21526106](#)

Article Published Date : Nov 01, 2010

Authors : Mohammad Alizadeh, Sevana Daneghian, Aida Ghaffari, Alireza Ostadrahimi, Abdolrasoul Safaeiyan, Rassul Estakhri, Bahram Pourghasem Gargari

Study Type : Human Study

Additional Links

Substances : [Arginine](#) : CK(854) : AC(168), [Legumes](#) : CK(13) : AC(2), [Selenium](#) : CK(402) : AC(92)

Diseases : [Abdominal Obesity \(Midsection Fat\)](#) : CK(227) : AC(47)

[Selenium has a positive effect on apolipoprotein B expression in hypercholesterolemia.](#) - GMI Summary

Pubmed Data : Lipids Health Dis. 2005;4:28. Epub 2005 Nov 5. PMID: [16271152](#)

Article Published Date : Jan 01, 2005

Authors : Sanjiv Dhingra, Mohinder P Bansal

Study Type : Animal Study

Additional Links

Substances : [Selenium : CK\(402\) : AC\(92\)](#)

Diseases : [Apolipoprotein A/B ratio imbalances : CK\(4\) : AC\(2\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

[Selenium may have therapeutic value in lipid metabolism and disorders.](#) - GMI Summary

Pubmed Data : Chem Biol Interact. 2006 May 15;161(1):49-56. Epub 2006 Apr 3. PMID: [16581047](#)

Article Published Date : May 15, 2006

Authors : Sanjiv Dhingra, Mohinder P Bansal

Study Type : Animal Study

Additional Links

Substances : [Selenium : CK\(402\) : AC\(92\)](#)

Diseases : [Apolipoprotein A/B ratio imbalances : CK\(4\) : AC\(2\)](#), [Apolipoprotein Disorders : CK\(28\) : AC\(9\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [HMG-CoA reductase inhibitor : CK\(2\) : AC\(1\)](#)

Coconut Oil

[Coconut kernel protein favorably modifies the effect of coconut oil on serum lipids.](#) - GMI Summary

Pubmed Data : Plant Foods Hum Nutr. 1999;53(2):133-44. PMID: [10472790](#)

Article Published Date : Jan 01, 1999

Authors : K G Padmakumaran Nair, T Rajamohan, P A Kurup

Study Type : Human Study

Additional Links

Substances : [Arginine : CK\(854\) : AC\(168\)](#), [Coconut : CK\(99\) : AC\(35\)](#), [Coconut Oil : CK\(59\) : AC\(17\)](#), [Coconut Protein : CK\(11\) : AC\(3\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Anti-Adipogenic : CK\(79\) : AC\(38\)](#), [Hypolipidemic : CK\(282\) : AC\(75\)](#)

[Dietary coconut oil elevates HDL and reduces abdominal obesity in women.](#) - GMI Summary

Pubmed Data : Lipids. 2009 Jul;44(7):593-601. Epub 2009 May 13. PMID: [19437058](#)

Article Published Date : Jul 01, 2009

Authors : Monica L Assunção, Haroldo S Ferreira, Aldenir F dos Santos, Cyro R Cabral, Telma M M T Florêncio

Study Type : Human Study

Additional Links

Substances : [Coconut : CK\(99\) : AC\(35\)](#), [Coconut Oil : CK\(59\) : AC\(17\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [HDL: Low : CK\(195\) : AC\(48\)](#)

[Wet process coconut oil extraction is superior to dry extraction in improving lipid metabolic and antioxidant status in cholesterol coadministered rats.](#) - GMI Summary

Pubmed Data : Can J Physiol Pharmacol. 2009 Aug;87(8):610-6. PMID: [19767885](#)

Article Published Date : Aug 01, 2009

Authors : K Govindan Nevin, Thankappan Rajamohan

Study Type : Animal Study

Additional Links

Substances : [Coconut Oil : CK\(59\) : AC\(17\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hyperlipidemia : CK\(403\) : AC\(105\)](#), [Oxidative Stress : CK\(1631\) : AC\(660\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

Maitake Mushroom

[A water extract of maitake mushroom reduces circulating glucose/insulin concentrations in insulin-resistant mice.](#) - GMI Summary

Pubmed Data : Diabetes Obes Metab. 2002 Jan;4(1):43-8. PMID: [11874441](#)

Article Published Date : Jan 01, 2002

Authors : V Manohar, N A Talpur, B W Echard, S Lieberman, H G Preuss

Study Type : Animal Study

Additional Links

Substances : [Maitake Mushroom : CK\(78\) : AC\(34\)](#)

Diseases : [Hyperinsulinism : CK\(123\) : AC\(35\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

[Maitake contains a compound known as alpha-glucan which has antidiabetic activity, possibly through reducing insulin resistance.](#) - GMI Summary

Pubmed Data : J Pharm Pharmacol. 2007 Apr;59(4):575-82. PMID: [17430642](#)

Article Published Date : Apr 01, 2007

Authors : Lei Hong, Ma Xun, Wu Wutong

Study Type : Animal Study

Additional Links

Substances : [Maitake Mushroom : CK\(78\) : AC\(34\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

[Maitake has antihypertensive effects in rats.](#) - GMI Summary

Pubmed Data : Mol Cell Biochem. 2002 Aug;237(1-2):129-36. PMID: [12236580](#)

Article Published Date : Aug 01, 2002

Authors : Nadeem A Talpur, Bobby W Echard, Arthur Yin Fan, Omeed Jaffari, Debasis Bagchi, Harry G Preuss

Study Type : Animal Study

Additional Links

Substances : [Maitake Mushroom : CK\(78\) : AC\(34\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Antihypertensive Agents : CK\(158\) : AC\(35\)](#)

[Maitake mushroom \(SX-fraction\) improves insulin sensitivity.](#) - GMI Summary

Pubmed Data : Nat Med (Tokyo). 2008 Jul;62(3):284-93. Epub 2008 Feb 13. PMID: [17671829](#)

Article Published Date : Jul 01, 2008

Authors : Harry G Preuss, Bobby Echard, Debasis Bagchi, Nicholas V Perricone, Cun Zhuang

Study Type : Animal Study

Additional Links

Substances : [Maitake Mushroom : CK\(78\) : AC\(34\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

Niacin

[Niacin and omega-3 fatty acids may correct non-HDL lipoprotein and apolipoprotein B abnormalities.](#) - GMI Summary

Pubmed Data : Am J Chin Med. 2004;32(2):175-83. PMID: [19545870](#)

Article Published Date : Jan 01, 2004

Authors : Robert S Rosenson

Study Type : Commentary

Additional Links

Substances : [Niacin : CK\(134\) : AC\(27\)](#), [Omega-3 Fatty Acids : CK\(1938\) : AC\(318\)](#)

Diseases : [Apolipoprotein Disorders : CK\(28\) : AC\(9\)](#), [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

[Niacin may demonstrate an anti-atherogenic effect in metaoblic syndrome.](#) - GMI Summary

Pubmed Data : Int J Clin Pract. 2007 Nov;61(11):1942-8. PMID: [17935553](#)

Article Published Date : Nov 01, 2007

Authors : M Thoenes, A Oguchi, S Nagamia, C S Vaccari, R Hammoud, G E Umpierrez, B V Khan

Study Type : Human Study

Additional Links

Substances : [Niacin : CK\(134\) : AC\(27\)](#)

Diseases : [Endothelial Dysfunction : CK\(649\) : AC\(164\)](#), [Intima Media Thickening : CK\(151\) : AC\(42\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

[Niacin regresses carotid intimal medial thickness, reduces vascular inflammation and improves endothelial function in patients with metabolic syndrome.](#) - GMI Summary

Pubmed Data : Int J Clin Pract. 2007 Nov;61(11):1942-8. PMID: [17935553](#)

Article Published Date : Nov 01, 2007

Authors : M Thoenes, A Oguchi, S Nagamia, C S Vaccari, R Hammoud, G E Umpierrez, B V Khan

Study Type : Human Study

Additional Links

Substances : [Niacin : CK\(134\) : AC\(27\)](#)

Diseases : [Carotid Artery Narrowing : CK\(39\) : AC\(8\)](#), [Intima Media Thickening : CK\(151\) : AC\(42\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Simvastatin

[Simvastatin decreases coenzyme q10 levels in the left ventricle of the heart and skeletal muscle.](#) - GMI Summary

Pubmed Data : Physiol Res. 2007;56 Suppl 2:S49-54. Epub 2007 Sep 5. PMID: [17824807](#)

Article Published Date : Jan 01, 2007

Authors : J Kucharská, A Gvozdjaková, F Simko

Study Type : Animal Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Statin-Induced Pathologies : CK\(248\) : AC\(40\)](#)

Problem Substances : [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(984\) : AC\(83\)](#)

Other : [Cardiotoxic : CK\(467\) : AC\(53\)](#), [Myotoxicity : CK\(44\) : AC\(11\)](#)

[Statin drugs reduce coq10 levels which may result in mitochondrial dysfunction and cellular damage.](#) - GMI Summary

Pubmed Data : J Clin Pharmacol. 1993 Mar;33(3):226-9. PMID: [8463436](#)

Article Published Date : Mar 01, 1993

Authors : G Ghirlanda, A Oradei, A Manto, S Lippa, L Uccioli, S Caputo, A V Greco, G P Littarru

Study Type : Human Study

Additional Links

Diseases : [Drug-Induced Toxicity : CK\(482\) : AC\(73\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Myopathies : CK\(94\) : AC\(18\)](#)

Additional Keywords : [Drug-Nutrient Depletion : CK\(64\) : AC\(10\)](#), [Statin-Coq10 Depletion : CK\(36\) : AC\(7\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Pravastatin : CK\(31\) : AC\(4\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(984\) : AC\(83\)](#)

Other : [Cytotoxic : CK\(45\) : AC\(28\)](#)

DHA (Docosahexaenoic Acid)

[Omega 3 fatty acids induce a marked reduction of apolipoprotein B48 when added to fluvastatin in patients with type 2 diabetes and mixed hyperlipidemia.](#) - GMI Summary

Pubmed Data : Genes Cancer. 2010 Aug 1;1(8):868-876. PMID: [19133114](#)

Article Published Date : Aug 01, 2010

Authors : Pedro Valdivielso, José Rioja, Carlota García-Arias, Miguel Angel Sánchez-Chaparro, Pedro González-Santos

Study Type : Human Study

Additional Links

Substances : [DHA \(Docosahexaenoic Acid\) : CK\(430\) : AC\(99\)](#), [EPA \(Eicosapentaenoic Acid\) : CK\(432\) : AC\(85\)](#)

Diseases : [Apolipoprotein Disorders : CK\(28\) : AC\(9\)](#), [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Antihypertensive Agents : CK\(158\) : AC\(35\)](#), [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

Additional Keywords : [Drug-Plant-Vitamin Synergies : CK\(816\) : AC\(275\)](#)

[Omega-3 fatty acids alleviate insulin resistance and fatty liver in obese mice.](#) - GMI Summary

Pubmed Data : Int Urol Nephrol. 2004;36(4):591-8. PMID: [19211925](#)

Article Published Date : Jan 01, 2004

Authors : Ana González-Pérez, Raquel Horrillo, Natàlia Ferré, Karsten Gronert, Baiyan Dong, Eva Morán-Salvador, Esther Titos, Marcos Martínez-Clemente, Marta López-Parra, Vicente Arroyo, Joan Clària

Study Type : Animal Study

Additional Links

Substances : [DHA \(Docosahexaenoic Acid\) : CK\(430\) : AC\(99\)](#), [EPA \(Eicosapentaenoic Acid\) : CK\(432\) : AC\(85\)](#), [Omega-3 Fatty Acids : CK\(1938\) : AC\(318\)](#)

Diseases : [Adiponectin: Low Levels : CK\(75\) : AC\(25\)](#), [Fatty Liver : CK\(449\) : AC\(109\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Pharmacological Actions : [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

[Omega-3 fatty acids compares favorably with rosiglitazone for improving insulin sensitivity in mice fed a high-fat diet.](#) - GMI Summary

Pubmed Data : Diabetologia. 2009 May;52(5):941-51. Epub 2009 Mar 11. PMID: [19277604](#)

Article Published Date : May 01, 2009

Authors : O Kuda, T Jelenik, Z Jilkova, P Flachs, M Rossmeisl, M Hensler, L Kazdova, N Ogston, M Baranowski, J Gorski, P Janovska, V Kus, J Polak, V Mohamed-Ali, R Burcelin, S Cinti, M Bryhn, J Kopecky

Study Type : Animal Study

Additional Links

Substances : [DHA \(Docosahexaenoic Acid\) : CK\(430\) : AC\(99\)](#), [EPA \(Eicosapentaenoic Acid\) : CK\(432\) : AC\(85\)](#), [Omega-3 Fatty Acids : CK\(1938\) : AC\(318\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Pharmacological Actions : [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#)

Additional Keywords : [Drug: Rosiglitazone : CK\(14\) : AC\(5\)](#), [Drug-Plant-Vitamin Synergies : CK\(816\) : AC\(275\)](#)

Fenofibrates

[Decreases in high-density lipoprotein cholesterol with fenofibrate are a quite common phenomenon.](#) - GMI Summary

Pubmed Data : J Clin Pathol. 2009 Mar;62(3):250-3. PMID: [19251953](#)

Article Published Date : Mar 01, 2009

Authors : G Magee, P C Sharpe

Study Type : Human Study

Additional Links

Diseases : [Cholesterol: LDL/HDL ratio : CK\(287\) : AC\(52\)](#), [Dyslipidemias : CK\(157\) : AC\(29\)](#), [HDL: Low : CK\(195\) : AC\(48\)](#)

Problem Substances : [Fenofibrates : CK\(66\) : AC\(11\)](#)

Other : [Dyslipidemic : CK\(22\) : AC\(7\)](#)

[Statins and fenofibrates may exert their wide range of adverse side effects through interfering with selenoprotein expression.](#) - GMI Summary

Pubmed Data : Trends Cardiovasc Med. 2004 Oct;14(7):273-81. PMID: [15542379](#)

Article Published Date : Oct 01, 2004

Authors : Bernd Moosmann, Christian Behl

Study Type : Review

Additional Links

Diseases : [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Mineral Deficiencies: Selenium : CK\(15\) : AC\(6\)](#), [Statin-Induced Pathologies : CK\(248\) : AC\(40\)](#)

Additional Keywords : [Drug-Nutrient Depletion : CK\(64\) : AC\(10\)](#), [Statin-Selenium Deficiency : CK\(4\) : AC\(4\)](#)

Problem Substances : [Fenofibrates : CK\(66\) : AC\(11\)](#), [Statin Drugs : CK\(984\) : AC\(83\)](#)

Fenugreek

[Fenugreek contains a soluble fiber that improves blood lipid and glucose responses in rats, while also reducing abdominal fat.](#) - GMI Summary

Pubmed Data : J Clin Biochem Nutr. 2008 Nov;43(3):167-74. Epub 2008 Oct 31. PMID:[19015751](#)

Article Published Date : Nov 01, 2008

Authors : Anchalee Srichamroen, Catherine J Field, Alan B R Thomson, Tapan K Basu

Study Type : Animal Study

Additional Links

Substances : [Fenugreek : CK\(76\) : AC\(28\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#)

[Fenugreek seed polyphenolic extract and quercetin compares favorably to metformin in improving insulin signaling, sensitivity and functioning in a rat model.](#) - GMI Summary

Pubmed Data : Indian J Med Res. 2009 Apr;129(4):401-8. PMID: [19535835](#)

Article Published Date : Apr 01, 2009

Authors : S Kannappan, C V Anuradha

Study Type : Animal Study

Additional Links

Substances : [Fenugreek : CK\(76\) : AC\(28\)](#), [Polyphenols : CK\(382\) : AC\(170\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Additional Keywords : [Drug: Metformin : CK\(141\) : AC\(22\)](#), [Natural Substances Versus Drugs : CK\(832\) : AC\(164\)](#), [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

[Fenugreek seeds improves triglyceride levels, glycemic control and decreases insulin resistance in mild type 2 diabetic patients.](#) - GMI Summary

Pubmed Data : J Assoc Physicians India. 2001 Nov;49:1057-61. PMID: [11868855](#)

Article Published Date : Nov 01, 2001

Authors : A Gupta, R Gupta, B Lal

Study Type : Human Study

Additional Links

Substances : [Fenugreek : CK\(76\) : AC\(28\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Triglycerides: Elevated : CK\(227\) : AC\(64\)](#)

Tart Cherry

[Regular tart cherry intake alters abdominal adiposity, adipose gene transcription, and inflammation in obesity-prone rats fed a high fat diet.](#) - GMI Summary

Pubmed Data : J Med Food. 2009 Oct;12(5):935-42. PMID: [19857054](#)

Article Published Date : Oct 01, 2009

Authors : E M Seymour, Sarah K Lewis, Daniel E Urcuyo-Llanes, Ignasia I Tanone, Ara Kirakosyan, Peter B Kaufman, Steven F Bolling

Study Type : Animal Study

Additional Links

Substances : [Tart Cherry : CK\(56\) : AC\(12\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Cardiovascular Diseases : CK\(3633\) : AC\(602\)](#), [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Pharmacological Actions : [Anti-Inflammatory Agents : CK\(999\) : AC\(390\)](#), [Interleukin-6 Downregulation : CK\(393\) : AC\(131\)](#), [NF-kappaB inhibitor : CK\(631\) : AC\(382\)](#), [Tumor Necrosis Factor \(TNF\) Alpha Inhibitor : CK\(858\) : AC\(330\)](#)

[Tart cherries appear to positively alter a number of abnormalities associated with metabolic syndrome and Type 2 diabetes. - GMI Summary](#)

Pubmed Data : J Med Food. 2008 Jun;11(2):252-9. PMID: [18598166](#)

Article Published Date : Jun 01, 2008

Authors : E Mitchell Seymour, Andrew A M Singer, Ara Kirakosyan, Daniel E Urcuyo-Llanes, Peter B Kaufman, Steven F Bolling

Study Type : Human Study

Additional Links

Substances : [Tart Cherry](#) : CK(56) : AC(12)

Diseases : [Metabolic Syndrome X](#) : CK(376) : AC(97)

Almond

[A diet high in plant sterols, vegetable proteins, viscous fibers and almonds is as effective as the statin drug lovastatin in managing hypercholesterolemia. - GMI Summary](#)

Pubmed Data : JAMA. 2003 Jul 23;290(4):502-10. PMID: [12876093](#)

Article Published Date : Jul 23, 2003

Authors : David J A Jenkins, Cyril W C Kendall, Augustine Marchie, Dorothea A Faulkner, Julia M W Wong, Russell de Souza, Azadeh Emam, Tina L Parker, Edward Vidgen, Karen G Lapsley, Elke A Trautwein, Robert G Josse, Lawrence A Leiter, Philip W Connelly

Study Type : Human Study

Additional Links

Substances : [Almond](#) : CK(48) : AC(11), [Fiber](#) : CK(381) : AC(71), [Vegetables: All](#) : CK(373) : AC(69)

Diseases : [C-Reactive Protein](#) : CK(425) : AC(72), [High Cholesterol](#) : CK(865) : AC(192), [Hyperlipidemia](#) : CK(403) : AC(105)

Pharmacological Actions : [Anticholesteremic Agents](#) : CK(180) : AC(38)

Additional Keywords : [Natural Substances Versus Drugs](#) : CK(832) : AC(164)

[Almond supplementation in combination with a low-calorie diet improves a preponderance of abnormalities associated with metabolic syndrome. - GMI Summary](#)

Pubmed Data : Int J Obes Relat Metab Disord. 2003 Nov;27(11):1365-72. PMID: [14574348](#)

Article Published Date : Nov 01, 2003

Authors : M A Wien, J M Sabaté, D N Iklé, S E Cole, F R Kandeel

Study Type : Human Study

Additional Links

Substances : [Almond](#) : CK(48) : AC(11)

Diseases : [Metabolic Syndrome X](#) : CK(376) : AC(97)

Therapeutic Actions : [Dietary Modification: Low Calorie Diet](#) : CK(17) : AC(3)

Cashew

[Cashews may have a therapeutic effect in subjects with impaired baroreflex sensitivity. - GMI Summary](#)

Pubmed Data : Am J Hypertens. 2006 Jun;19(6):629-36. PMID: [16733237](#)

Article Published Date : Jun 01, 2006

Authors : Aletta E Schutte, Johannes M Van Rooyen, Hugo W Huisman, Janine Mukuddem-Petersen, Welma

Oosthuizen, Susanna M Hanekom, Johann C Jerling

Study Type : Human Study

Additional Links

Substances : [Cashew](#) : CK(7) : AC(3)

Diseases : [Baroreflex Sensitivity Impairment](#) : CK(5) : AC(1), [Hypertension](#) : CK(1319) : AC(254), [Metabolic Syndrome X](#) : CK(376) : AC(97)

Cranberry

[Cranberry extract has a favorable effect on blood lipid profiles in patients with type 2 diabetes.](#) - GMI Summary

Pubmed Data : Diabet Med. 2008 Dec;25(12):1473-7. PMID: [19046248](#)

Article Published Date : Dec 01, 2008

Authors : I T Lee, Y C Chan, C W Lin, W J Lee, W H-H Sheu

Study Type : Human Study

Additional Links

Substances : [Cranberry](#) : CK(199) : AC(48)

Diseases : [Cholesterol: LDL/HDL ratio](#) : CK(287) : AC(52), [Diabetes: Cardiovascular Illness](#) : CK(501) : AC(102), [Diabetes Mellitus: Type 2](#) : CK(2227) : AC(301), [High Cholesterol](#) : CK(865) : AC(192)

Additional Keywords : [Plant Extracts](#) : CK(3121) : AC(1098)

[Cranberry juice supplementation reduces cholesterol oxidation and cell adhesion molecule concentrations in men.](#) - GMI Summary

Pubmed Data : Br J Nutr. 2008 Feb;99(2):352-9. Epub 2007 Aug 29. PMID: [17761017](#)

Article Published Date : Feb 01, 2008

Authors : Guillaume Ruel, Sonia Pomerleau, Patrick Couture, Simone Lemieux, Benoît Lamarche, Charles Couillard

Study Type : Human Study

Additional Links

Substances : [Cranberry](#) : CK(199) : AC(48)

Diseases : [Cholesterol: Oxidation](#) : CK(329) : AC(96), [Hypertension](#) : CK(1319) : AC(254)

Pharmacological Actions : [Vascular Cell Adhesion Molecule-1 Inhibitor](#) : CK(65) : AC(20)

Hibiscus

[Hibiscus infusion had positive effects on Blood Pressure in type 2 diabetics.](#) - GMI Summary

Pubmed Data : J Hum Hypertens. 2008 Aug 7. [Epub ahead of print] PMID: [18685605](#)

Article Published Date : Aug 07, 2008

Authors : H Mozaffari-Khosravi, B-A Jalali-Khanabadi, M Afkhami-Ardekani, F Fatehi, M Noori-Shadkam

Study Type : Human Study

Additional Links

Substances : [Hibiscus](#) : CK(18) : AC(5)

Diseases : [Diabetes: Cardiovascular Illness](#) : CK(501) : AC(102), [Hypertension](#) : CK(1319) : AC(254)

[Hibiscus sabdariffa extract powder has a therapeutic activity in the treatment of metabolic syndrome.](#) - GMI Summary

Pubmed Data : Am J Physiol Gastrointest Liver Physiol. 2008 Nov;295(5):G1092-103. Epub 2008 Sep 25. PMID: [19962289](#)

Article Published Date : Nov 01, 2008

Authors : C M Gurrola-Díaz, P M García-López, S Sánchez-Enríquez, R Troyo-Sanromán, I Andrade-González, J F Gómez-Leyva

Study Type : Human Study

Additional Links

Substances : [Hibiscus : CK\(18\) : AC\(5\)](#)

Diseases : [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Oat Bran

[A diet rich in fiber may have a moderate blood pressure-lowering effect - GMI Summary](#)

Pubmed Data : J Hypertens. 2004 Jan;22(1):73-80. PMID: [15106797](#)

Article Published Date : Jan 01, 2004

Authors : Jiang He, Richard H Streiffer, Paul Muntner, Marie A Krousel-Wood, Paul K Whelton

Study Type : Human Study

Additional Links

Substances : [Fiber : CK\(381\) : AC\(71\)](#), [Oat Bran : CK\(26\) : AC\(8\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

[An oat bran enriched diet improves the lipid profile in patients with an increased coronary heart disease risk. A controlled randomized lifestyle intervention study. - GMI Summary](#)

Pubmed Data : Ann Nutr Metab. 2003;47(6):306-11. PMID: [14520027](#)

Article Published Date : Jan 01, 2003

Authors : Aloys Berg, Daniel König, Peter Deibert, Dominik Grathwohl, Andreas Berg, Manfred W Baumstark, Ingomar-Werner Franz

Study Type : Human Study

Additional Links

Substances : [Oat Bran : CK\(26\) : AC\(8\)](#), [Oats : CK\(168\) : AC\(45\)](#)

Diseases : [Coronary Artery Disease : CK\(912\) : AC\(131\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Chia

[Chia seed \(S. hispanica\) may contribute to improving blood lipid profiles. - GMI Summary](#)

Pubmed Data : Ann Nutr Metab. 2007;51(1):27-34. Epub 2007 Mar 14. PMID: [17356263](#)

Article Published Date : Jan 01, 2007

Authors : Ricardo Ayerza, Wayne Coates

Study Type : Animal Study

Additional Links

Substances : [Chia : CK\(14\) : AC\(4\)](#)

Diseases : [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Triglycerides: Elevated : CK\(227\) : AC\(64\)](#)

[Dietary chia seed \(S. hispanica\) improves adiposity and normalizes high triglycerides and insulin resistance in rats with dysfunctional blood lipid profiles. - GMI Summary](#)

Pubmed Data : Br J Nutr. 2009 Jan;101(1):41-50. Epub 2008 May 20. PMID: [18492301](#)

Article Published Date : Jan 01, 2009

Authors : Adriana G Chicco, Maria E D'Alessandro, Gustavo J Hein, Maria E Oliva, Yolanda B Lombardo

Study Type : Animal Study

Additional Links

Substances : [Chia : CK\(14\) : AC\(4\)](#)

Diseases : [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Triglycerides: Elevated : CK\(227\) : AC\(64\)](#)

Garcinia cambogia

[**G. cambogia extract, soy peptide, and L-carnitine attenuated visceral fat accumulation and improved dyslipidemia in a rat model with high fat diet-induced obesity. - GMI Summary**](#)

Pubmed Data : Genes Nutr. 2008 Feb;2(4):353-8. PMID: [18850230](#)

Article Published Date : Feb 01, 2008

Authors : [No authors listed]

Study Type : Animal Study

Additional Links

Substances : [Carnitine : CK\(285\) : AC\(67\)](#), [Garcinia cambogia : CK\(6\) : AC\(4\)](#), [L-Carnitine : CK\(3\) : AC\(1\)](#), [Soy Protein : CK\(245\) : AC\(56\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

[**Garcinia cambogia extract ameliorates visceral adiposity in mice fed on a high-fat diet. - GMI Summary**](#)

Pubmed Data : Biosci Biotechnol Biochem. 2008 Jul;72(7):1772-80. Epub 2008 Jul 7. PMID: [18603810](#)

Article Published Date : Jul 01, 2008

Authors : Keun-Young Kim, Hye Nam Lee, Yun Jung Kim, Taesun Park

Study Type : Animal Study

Additional Links

Substances : [Garcinia cambogia : CK\(6\) : AC\(4\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#)

Royal Jelly

[**Royal jelly ameliorates insulin resistance in a fructose-induced rat model of diabetes. - GMI Summary**](#)

Pubmed Data : Biol Pharm Bull. 2008 Nov;31(11):2103-7 PMID: [18981581](#)

Article Published Date : Nov 01, 2008

Authors : Yoshito Zamami, Shingo Takatori, Mitsuhiro Goda, Toshihiro Koyama, Yukiko Iwatani, Xin Jin, Shima Takai-Doi, Hiromu Kawasaki

Study Type : Animal Study

Additional Links

Substances : [Royal Jelly : CK\(69\) : AC\(33\)](#)

Diseases : [Diabetes Mellitus: Type 1 : CK\(743\) : AC\(207\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Additional Keywords : [Fructose-Induced Insulin Resistance : CK\(44\) : AC\(14\)](#)

[Royal jelly ameliorates insulin resistance in a fructose-induced rat model of diabetes.](#) - GMI Summary

Pubmed Data : Biol Pharm Bull. 2008 Nov;31(11):2103-7 PMID: [18981581](#)

Article Published Date : Nov 01, 2008

Authors : Yoshito Zamami, Shingo Takatori, Mitsuhiro Goda, Toshihiro Koyama, Yukiko Iwatani, Xin Jin, Shima Takai-Doi, Hiromu Kawasaki

Study Type : Animal Study

Additional Links

Substances : [Royal Jelly : CK\(69\) : AC\(33\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Additional Keywords : [Fructose-Induced Insulin Resistance : CK\(44\) : AC\(14\)](#)

[Royal jelly contains peptides with significant antihypertensive effects in rats.](#) - GMI Summary

Pubmed Data : Biol Pharm Bull. 2004 Feb;27(2):189-92. PMID: [14758031](#)

Article Published Date : Feb 01, 2004

Authors : Katsu-hiko Tokunaga, Chie Yoshida, Kazu-michi Suzuki, Hiroe Maruyama, Yoshihiro Futamura, Yoko Araki, Satoshi Mishima

Study Type : Animal Study

Additional Links

Substances : [Royal Jelly : CK\(69\) : AC\(33\)](#)

Diseases : [Blood Pressure: High : CK\(1288\) : AC\(243\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Angiotensin-Converting Enzyme Inhibitors : CK\(23\) : AC\(12\)](#)

Taurine

[Taurine attenuates hypertension and improves insulin sensitivity in the fructose-fed rat, an animal model of insulin resistance.](#) - GMI Summary

Pubmed Data : Can J Physiol Pharmacol. 1999 Oct;77(10):749-54. PMID: [10588478](#)

Article Published Date : Oct 01, 1999

Authors : C V Anuradha, S D Balakrishnan

Study Type : Animal Study

Additional Links

Substances : [Taurine : CK\(128\) : AC\(32\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Additional Keywords : [Fructose-Induced Insulin Resistance : CK\(44\) : AC\(14\)](#)

[Taurine positively modifies insulin signaling enzymes in the fructose-fed insulin resistant rats.](#) - GMI Summary

Pubmed Data : Diabetes Metab. 2005 Sep;31(4 Pt 1):337-44. PMID: [16369195](#)

Article Published Date : Sep 01, 2005

Authors : A T Anitha Nandhini, V Thirunavukkarasu, C V Anuradha

Study Type : Animal Study

Additional Links

Substances : [Taurine : CK\(128\) : AC\(32\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#)

ALA (Alpha-Linolenic Acid)

[Alpha-linolenic acid inhibits angiotensin-converting enzyme activity in hypertensive rats.](#) -

GMI Summary

Pubmed Data : J Oleo Sci. 2009;58(7):355-60. PMID: [19491530](#)

Article Published Date : Jan 01, 2009

Authors : Akiko Ogawa, Yo Suzuki, Toshiaki Aoyama, Hiroyuki Takeuchi

Study Type : Animal Study

Additional Links

Substances : [ALA \(Alpha-Linolenic Acid\)](#) : CK(31) : AC(8)

Diseases : [Hypertension](#) : CK(1319) : AC(254)

Pharmacological Actions : [Angiotensin-Converting Enzyme Inhibitors](#) : CK(23) : AC(12)

[Dietary supplementation with flaxseed oil lowers blood pressure in dyslipidaemic patients.](#) -

GMI Summary

Pubmed Data : Eur J Clin Nutr. 2007 Oct;61(10):1201-6. Epub 2007 Jan 31. PMID: [17268413](#)

Article Published Date : Oct 01, 2007

Authors : G K Paschos, F Magkos, D B Panagiotakos, V Votteas, A Zampelas

Study Type : Human Study

Additional Links

Substances : [ALA \(Alpha-Linolenic Acid\)](#) : CK(31) : AC(8), [Flaxseed](#) : CK(194) : AC(54)

Diseases : [Cardiovascular Diseases](#) : CK(3633) : AC(602), [Dyslipidemias](#) : CK(157) : AC(29)

Pharmacological Actions : [Hypotensive](#) : CK(239) : AC(45)

Capsaicin

[Capsaicin pretreatment attenuates chronic hypoxic pulmonary hypertension.](#) - GMI

Summary

Pubmed Data : Respir Physiol. 1995 Feb;99(2):283-9. PMID: [7539934](#)

Article Published Date : Feb 01, 1995

Authors : Y L Lai, C F Chen, C T Chien, H L Shiao, A A Thacker, H Q Zhang

Study Type : Animal Study

Additional Links

Substances : [Capsaicin](#) : CK(44) : AC(25)

Diseases : [Hypertension](#) : CK(1319) : AC(254), [Hypertension: Pulmonary](#) : CK(108) : AC(34), [Hypoxia](#) : CK(84) : AC(39)

[Curcumin, capsaicin and garlic attenuate adverse blood changes associated with a cholesterol-enriched diet.](#) - GMI Summary

Pubmed Data : Br J Nutr. 2005 Jan;93(1):81-91. PMID: [15705229](#)

Article Published Date : Jan 01, 2005

Authors : Rayavara K Kempaiah, Krishnapura Srinivasan

Study Type : Animal Study

Additional Links

Substances : [Capsaicin : CK\(44\) : AC\(25\)](#), [Curcumin : CK\(2792\) : AC\(1459\)](#), [Garlic : CK\(372\) : AC\(142\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

[Curcumin, capsaicin, and garlic have a beneficial effect in the red blood cells and liver of cholesterol fed rats.](#) - GMI Summary

Pubmed Data : Acta Pharmacol Sin. 2007 Oct;28(10):1559-65. PMID: [15296079](#)

Article Published Date : Oct 01, 2007

Authors : R K Kempaiah, K Srinivasan

Study Type : Animal Study

Additional Links

Substances : [Capsaicin : CK\(44\) : AC\(25\)](#), [Curcumin : CK\(2792\) : AC\(1459\)](#), [Garlic : CK\(372\) : AC\(142\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Cardioprotective : CK\(540\) : AC\(179\)](#),

[Hepatoprotective : CK\(580\) : AC\(245\)](#)

[Dietary curcumin and capsaicin have hypolipidemic and antioxidant effects.](#) - GMI Summary

Pubmed Data : Life Sci. 2001 Dec 7;70(3):253-67. PMID: [17960446](#)

Article Published Date : Dec 07, 2001

Authors : H Manjunatha, K Srinivasan

Study Type : Animal Study

Additional Links

Substances : [Capsaicin : CK\(44\) : AC\(25\)](#), [Curcumin : CK\(2792\) : AC\(1459\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Hypolipidemic : CK\(282\) : AC\(75\)](#)

Tamarind

[Tamarind fruit pulp extract lowers cholesterol and has antioxidant activities in hypercholesterolemic hamstes.](#) - GMI Summary

Pubmed Data : Food Chem Toxicol. 2006 Jun;44(6):810-8. Epub 2005 Dec 5. PMID: [16330140](#)

Article Published Date : Jun 01, 2006

Authors : F Martinello, S M Soares, J J Franco, A C Santos, A Sugohara, S B Garcia, C Curti, S A Uyemura

Study Type : Animal Study

Additional Links

Substances : [Tamarind : CK\(31\) : AC\(10\)](#)

Diseases : [Arteriosclerosis : CK\(409\) : AC\(137\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

[Tamarind reduces total cholesterol, LDL cholesterol and diastolic blood pressure.](#) - GMI Summary

Pubmed Data : Pak J Pharm Sci. 2006 Apr;19(2):125-9. PMID: [16751124](#)

Article Published Date : Apr 01, 2006

Authors : A S M Maruf Iftekhhar, Israt Rayhan, Mohiuddin Abdul Quadir, Sharif Akhteruzzaman, Abul Hasnat

Study Type : Human Study

Additional Links

Substances : [Tamarind](#) : CK(31) : AC(10)

Diseases : [Hypertension](#) : CK(1319) : AC(254)

Pharmacological Actions : [Hypolipidemic](#) : CK(282) : AC(75), [Hypotensive](#) : CK(239) : AC(45)

Additional Keywords : [Plant Extracts](#) : CK(3121) : AC(1098)

Coriandrum sativum

[Coriander fruit exhibits gut modulatory, blood pressure lowering and diuretic activities.](#) -

GMI Summary

Pubmed Data : J Ethnopharmacol. 2009 Feb 25;122(1):123-30. Epub 2008 Dec 25. PMID: [19146935](#)

Article Published Date : Feb 25, 2009

Authors : Qaiser Jabeen, Samra Bashir, Badiaa Lyoussi, Anwar H Gilani

Study Type : In Vitro Study

Additional Links

Substances : [Coriandrum sativum](#) : CK(64) : AC(27)

Diseases : [Abdominal Cramps](#) : CK(10) : AC(4), [Diarrhea](#) : CK(396) : AC(69), [Dyspepsia](#) : CK(149) : AC(21), [Hypertension](#) : CK(1319) : AC(254), [Water Retention](#) : CK(37) : AC(11)

Pharmacological Actions : [Antihypertensive Agents](#) : CK(158) : AC(35), [Vasodilator Agents](#) : CK(223) : AC(50)

Additional Keywords : [Plant Extracts](#) : CK(3121) : AC(1098), [Science Confirms Tradition](#) : CK(71) : AC(40)

[Coriander seeds have a cholesterol-lowering action - Article 2.](#) - GMI Summary

Pubmed Data : Plant Foods Hum Nutr. 1997;51(2):167-72. PMID: [9527351](#)

Article Published Date : Jan 01, 1997

Authors : V Chithra, S Leelamma

Study Type : Animal Study

Additional Links

Substances : [Coriandrum sativum](#) : CK(64) : AC(27)

Diseases : [Cholesterol: LDL/HDL ratio](#) : CK(287) : AC(52), [HDL: Low](#) : CK(195) : AC(48), [High Cholesterol](#) : CK(865) : AC(192)

Pharmacological Actions : [Hypolipidemic](#) : CK(282) : AC(75)

[Coriander seeds have a cholesterol-lowering action.](#) - GMI Summary

Pubmed Data : J Environ Biol. 2008 Jan;29(1):53-6. PMID: [18831331](#)

Article Published Date : Jan 01, 2008

Authors : P Dhanapakiam, J Mini Joseph, V K Ramaswamy, M Moorthi, A Senthil Kumar

Study Type : Animal Study

Additional Links

Substances : [Coriandrum sativum](#) : CK(64) : AC(27)

Diseases : [Cholesterol: LDL/HDL ratio](#) : CK(287) : AC(52), [HDL: Low](#) : CK(195) : AC(48), [High Cholesterol](#) : CK(865) : AC(192)

Pharmacological Actions : [Anticholesteremic Agents](#) : CK(180) : AC(38), [Hypolipidemic](#) : CK(282) : AC(75)

EGCG (Epigallocatechin gallate)

[Green tea catechins may have a therapeutic role in the treatment of metabolic syndrome.](#) -

GMI Summary

Pubmed Data : Phytochemistry. 2009 Jan;70(1):11-24. Epub 2009 Jan 13. PMID: [19147161](#)

Article Published Date : Jan 01, 2009

Authors : Frank Thielecke, Michael Boschmann

Study Type : Human Study

Additional Links

Substances : [EGCG \(Epigallocatechin gallate\) : CK\(183\) : AC\(114\)](#), [Green Tea : CK\(732\) : AC\(272\)](#)

Diseases : [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

[Polyphenols may have therapeutic value in a variety of diseases through modulating AMP-activated protein kinase which reduce fatty acid and cholesterol synthesis and gluconeogenesis.](#) - GMI Summary

Pubmed Data : N Biotechnol.2009 Oct 1;26(1-2):17-22. Epub 2009 Apr 2. PMID: [19818314](#)

Article Published Date : Oct 01, 2009

Authors : Jin-Taek Hwang, Dae Young Kwon, Suk Hoo Yoon

Study Type : Commentary

Additional Links

Substances : [Berberine : CK\(132\) : AC\(67\)](#), [EGCG \(Epigallocatechin gallate\) : CK\(183\) : AC\(114\)](#), [Polyphenols : CK\(382\) : AC\(170\)](#), [Quercetin : CK\(265\) : AC\(134\)](#), [Resveratrol : CK\(1005\) : AC\(591\)](#)

Diseases : [Diabetes Mellitus: Type 1 : CK\(743\) : AC\(207\)](#), [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Pharmacological Actions : [AMP-activated protein kinase modulation : CK\(2\) : AC\(2\)](#), [Gluconeogenesis Inhibitor : CK\(26\) : AC\(14\)](#)

Turmeric

[A multi-herbal product called Protandim prevents fibrosis and capillary loss and preserves right ventricular function in rats.](#) - GMI Summary

Pubmed Data : Circulation. 2009 Nov 17;120(20):1951-60. Epub 2009 Nov 2. PMID: [19884466](#)

Article Published Date : Nov 17, 2009

Authors : Harm J Bogaard, Ramesh Natarajan, Scott C Henderson, Carlin S Long, Donatas Kraskauskas, Lisa Smithson, Ramzi Ockaili, Joe M McCord, Norbert F Voelkel

Study Type : Animal Study

Additional Links

Substances : [Ashwagandha : CK\(136\) : AC\(61\)](#), [Bacopa : CK\(47\) : AC\(18\)](#), [Green Tea : CK\(732\) : AC\(272\)](#), [Milk Thistle : CK\(172\) : AC\(54\)](#), [Protandim : CK\(20\) : AC\(7\)](#), [Turmeric : CK\(2856\) : AC\(1514\)](#)

Diseases : [Heart Failure : CK\(452\) : AC\(85\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Hypertension: Pulmonary : CK\(108\) : AC\(34\)](#)

Pharmacological Actions : [Anti-Fibrotic : CK\(28\) : AC\(18\)](#), [Vascular Endothelial Growth Factor A Inhibitor : CK\(98\) : AC\(55\)](#)

[Turmeric inhibits LDL oxidation and cholesterol lowering effects in rabbits with experimental atherosclerosis.](#) - GMI Summary

Pubmed Data : Atherosclerosis. 1999 Dec;147(2):371-8. PMID: [10559523](#)

Article Published Date : Dec 01, 1999

Authors : M C Ramírez-Tortosa, M D Mesa, M C Aguilera, J L Quiles, L Baró, C L Ramirez-Tortosa, E Martinez-Victoria, A Gil

Study Type : Animal Study

Additional Links

Substances : [Turmeric : CK\(2856\) : AC\(1514\)](#)

Diseases : [Arteriosclerosis : CK\(409\) : AC\(137\)](#), [Atherosclerosis : CK\(461\) : AC\(71\)](#), [Cholesterol: Oxidation : CK\(329\) : AC\(96\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Oxidative Stress : CK\(1631\) : AC\(660\)](#)

Pharmacological Actions : [Anticholesteremic Agents : CK\(180\) : AC\(38\)](#), [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Hypolipidemic : CK\(282\) : AC\(75\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

[Turmeric is hypotensive and has vasodilating and bradycardic effects.](#) - GMI Summary

Pubmed Data : J Ethnopharmacol. 2009 May 27. PMID: [19481144](#)

Article Published Date : May 27, 2009

Authors : Oluwatosin A Adaramoye, Raline M Anjos, Mônica M Almeida, Robson C Veras, Darizy F Silvia, Francisco A Oliveira, Karla V Cavalcante, Islania G Araújo, Aldeidia P Oliveira, Isac A Medeiros

Study Type : Animal Study

Additional Links

Substances : [Turmeric : CK\(2856\) : AC\(1514\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#), [Tachycardia : CK\(42\) : AC\(10\)](#)

L-Carnitine

[G. cambogia extract, soy peptide, and L-carnitine attenuated visceral fat accumulation and improved dyslipidemia in a rat model with high fat diet-induced obesity.](#) - GMI Summary

Pubmed Data : Genes Nutr. 2008 Feb;2(4):353-8. PMID: [18850230](#)

Article Published Date : Feb 01, 2008

Authors : [No authors listed]

Study Type : Animal Study

Additional Links

Substances : [Carnitine : CK\(285\) : AC\(67\)](#), [Garcinia cambogia : CK\(6\) : AC\(4\)](#), [L-Carnitine : CK\(3\) : AC\(1\)](#), [Soy Protein : CK\(245\) : AC\(56\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Pumpkin Seed Oil/Meal

[A flax and pumpkin seed mixture has anti-atherogenic and hepatoprotective effects.](#) - GMI Summary

Pubmed Data : Food Chem Toxicol. 2008 Dec;46(12):3714-20. Epub 2008 Oct 1. PMID: [18938206](#)

Article Published Date : Dec 01, 2008

Authors : M Makni, H Fetoui, N K Gargouri, El M Garoui, H Jaber, J Makni, T Boudawara, N Zeghal

Study Type : Animal Study

Additional Links

Substances : [Flaxseed : CK\(194\) : AC\(54\)](#), [Omega-3 Fatty Acids : CK\(1938\) : AC\(318\)](#), [Pumpkin Seed Oil/Meal : CK\(47\) : AC\(12\)](#)

Diseases : [Arteriosclerosis : CK\(409\) : AC\(137\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Hepatoprotective : CK\(580\) : AC\(245\)](#)

[Pumpkin seed oil contributes to the beneficial effect of an ACE-inhibitor and Calcium-](#)

[Channel Blocker in the treatment of hypertension. - GMI Summary](#)

Pubmed Data : Pharmacol Res. 2000 May;41(5):555-63. PMID: [10753555](#)

Article Published Date : May 01, 2000

Authors : H A Zuhair, A A Abd El-Fattah, M I El-Sayed

Study Type : Animal Study

Additional Links

Substances : [Pumpkin Seed Oil/Meal : CK\(47\) : AC\(12\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Rehmannia

[Rehmannia improves insulin resistance in type 2 diabetic rats and can effectively ameliorate adipose metabolic disturbance. - GMI Summary](#)

Pubmed Data : Zhongguo Zhong Yao Za Zhi. 2007 Oct;32(20):2182-4. PMID: [18306758](#)

Article Published Date : Oct 01, 2007

Authors : Xiu-Fang Lv, Qing-Yu Meng, Xin-Min Guo

Study Type : Animal Study

Additional Links

Substances : [Rehmannia : CK\(145\) : AC\(37\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Rice Protein

[Rice protein hydrolysate has anti-hypertensive effects. - GMI Summary](#)

Pubmed Data : Asia Pac J Clin Nutr. 2007;16 Suppl 1:275-80. PMID: [17392118](#)

Article Published Date : Jan 01, 2007

Authors : Guan-Hong Li, Ming-Ren Qu, Ju-Zhen Wan, Jin-Ming You

Study Type : Animal Study

Additional Links

Substances : [Rice Protein : CK\(10\) : AC\(4\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Angiotensin-Converting Enzyme Inhibitors : CK\(23\) : AC\(12\)](#), [Antihypertensive Agents : CK\(158\) : AC\(35\)](#)

[Rice protein may have cholesterol-lowering properties. - GMI Summary](#)

Pubmed Data : Ann Nutr Metab. 2009;54(4):283-90. Epub 2009 Jul 27. PMID: [19641306](#)

Article Published Date : Jan 01, 2009

Authors : Lin Yang, Motoni Kadowaki

Study Type : Animal Study

Additional Links

Substances : [Rice Protein : CK\(10\) : AC\(4\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Anticholesteremic Agents : CK\(180\) : AC\(38\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

Rosemary

[Rosemary prevents diet-induced obesity and perhaps metabolic syndrome in rats.](#) - GMI Summary

Pubmed Data : Int J Obes (Lond). 2005 Aug;29(8):991-7. PMID: [15852044](#)

Article Published Date : Aug 01, 2005

Authors : H Yajima, T Noguchi, E Ikeshima, M Shiraki, T Kanaya, N Tsuboyama-Kasaoka, O Ezaki, S Oikawa, K Kondo

Study Type : Animal Study

Additional Links

Substances : [Rosemary : CK\(143\) : AC\(60\)](#)

Diseases : [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Ashwagandha

[A multi-herbal product called Protandim prevents fibrosis and capillary loss and preserves right ventricular function in rats.](#) - GMI Summary

Pubmed Data : Circulation. 2009 Nov 17;120(20):1951-60. Epub 2009 Nov 2. PMID: [19884466](#)

Article Published Date : Nov 17, 2009

Authors : Harm J Bogaard, Ramesh Natarajan, Scott C Henderson, Carlin S Long, Donatas Kraskauskas, Lisa Smithson, Ramzi Ockaili, Joe M McCord, Norbert F Voelkel

Study Type : Animal Study

Additional Links

Substances : [Ashwagandha : CK\(136\) : AC\(61\)](#), [Bacopa : CK\(47\) : AC\(18\)](#), [Green Tea : CK\(732\) : AC\(272\)](#), [Milk Thistle : CK\(172\) : AC\(54\)](#), [Protandim : CK\(20\) : AC\(7\)](#), [Turmeric : CK\(2856\) : AC\(1514\)](#)

Diseases : [Heart Failure : CK\(452\) : AC\(85\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Hypertension: Pulmonary : CK\(108\) : AC\(34\)](#)

Pharmacological Actions : [Anti-Fibrotic : CK\(28\) : AC\(18\)](#), [Vascular Endothelial Growth Factor A Inhibitor : CK\(98\) : AC\(55\)](#)

[Ashwaganda significantly improves insulin sensitivity in Non-Insulin Dependent Diabetes Mellitus.](#) - GMI Summary

Pubmed Data : Basic Clin Pharmacol Toxicol. 2008 Jun;102(6):498-503. Epub 2008 Mar 16.C PMID: [18346053](#)

Article Published Date : Jun 01, 2008

Authors : Tarique Anwer, Manju Sharma, Krishna Kolappa Pillai, Muzaffar Iqbal

Study Type : Animal Study

Additional Links

Substances : [Ashwagandha : CK\(136\) : AC\(61\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Astragalus

[Astragalus appears to have an inhibitory effect on hypoxic pulmonary hypertension and right ventricular hypertrophy in rats.](#) - GMI Summary

Pubmed Data : Nutr J. 2008;7:11. Epub 2008 Apr 21. PMID: [11189248](#)

Article Published Date : Jan 01, 2008

Authors : S Xi, Y Ruan, Y Liu, L Zhang, W Si

Study Type : Animal Study

Additional Links

Substances : [Astragalus : CK\(257\) : AC\(57\)](#)

Diseases : [Hypertrophy: Right Ventricular : CK\(5\) : AC\(2\)](#), [Pulmonary Hypertension : CK\(108\) : AC\(34\)](#)

[Compounds found within Astragalus elevate circulating adiponectin levels resulting in the amelioration of insulin resistance and glucose intolerance in obese mice.](#) - GMI Summary

Pubmed Data : Endocrinology. 2009 Feb;150(2):625-33. Epub 2008 Oct 16. PMID: [18927219](#)

Article Published Date : Feb 01, 2009

Authors : Aimin Xu, Hongbing Wang, Ruby L C Hoo, Gary Sweeney, Paul M Vanhoutte, Yu Wang, Donghai Wu, Wenjing Chu, Guowei Qin, Karen S L Lam

Study Type : Animal Study

Additional Links

Substances : [Astragalus : CK\(257\) : AC\(57\)](#)

Diseases : [Adiponectin: Low Levels : CK\(75\) : AC\(25\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

CLA (Conjugated Linoleic Acid)

[Butter naturally enriched with conjugated linoleic acid and vaccenic acid has a beneficial effect on serum fatty acid composition in growing pigs.](#) - GMI Summary

Pubmed Data : Lipids Health Dis. 2008;7:31. Epub 2008 Aug 29. PMID: [18759970](#)

Article Published Date : Jan 01, 2008

Authors : Anna Haug, Per Sjögren, Nina Hølland, Hanne Müller, Nils P Kjos, Ole Taugbøl, Nina Fjerdingsby, Anne S Biong, Eirik Selmer-Olsen, Odd M Harstad

Study Type : Animal Study

Additional Links

Substances : [Butter : CK\(54\) : AC\(14\)](#), [CLA \(Conjugated Linoleic Acid\) : CK\(68\) : AC\(26\)](#), [Vaccenic acid : CK\(29\) : AC\(10\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

[Conjugated linoleic acid and chromium lower body weight and visceral fat mass in high fat fed mice.](#) - GMI Summary

Pubmed Data : J Ren Nutr. 2009 Sep;19(5):389-95. Epub 2009 Jul 3. PMID: [16933788](#)

Article Published Date : Sep 01, 2009

Authors : Arunabh Bhattacharya, M Mizanur Rahman, Roger McCarter, Marianne O'Shea, Gabriel Fernandes

Study Type : Animal Study

Additional Links

Substances : [Chromium : CK\(42\) : AC\(11\)](#), [CLA \(Conjugated Linoleic Acid\) : CK\(68\) : AC\(26\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Overweight : CK\(367\) : AC\(82\)](#)

Pine Nut

[Korean pine nut oil contains a fatty acid called pinolenic acid which may have LDL-lowering](#)

[properties by enhancing LDL uptake by liver cells. - GMI Summary](#)

Pubmed Data : Lipids. 2004 Apr;39(4):383-7. PMID: [15357026](#)

Article Published Date : Apr 01, 2004

Authors : Jin-Won Lee, Kwang-Won Lee, Seog-Won Lee, In-Hwan Kim, Chul Rhee

Additional Links

Substances : [Pine Nut : CK\(20\) : AC\(4\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

[Siberian pine nut oil has beneficial effects on people with benign hypertension. - GMI Summary](#)

Pubmed Data : Vopr Pitan. 2006;75(1):51-3. PMID: [16739609](#)

Article Published Date : Jan 01, 2006

Authors : Iu V Bakhtin, V V Budaeva, A L Vereshchagin, E Iu Egorova, E Iu Zhukova, A S Saratikov

Study Type : Human Study

Additional Links

Substances : [Pine Nut : CK\(20\) : AC\(4\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Amaranth

[Amaranth contains compounds with ACE inhibitory action. - GMI Summary](#)

Pubmed Data : Phytochemistry. 2009 May 12. PMID: [19443002](#)

Article Published Date : May 12, 2009

Authors : B Vecchi, M C Añón

Study Type : Review

Additional Links

Substances : [Amaranth : CK\(22\) : AC\(8\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Angiotensin-Converting Enzyme Inhibitors : CK\(23\) : AC\(12\)](#)

[Oat and amaranth meal positively affect plasma lipids in rats fed cholesterol-containing diets. - GMI Summary](#)

Pubmed Data : J Nutr Biochem. 2004 Oct;15(10):622-9. PMID: [15542354](#)

Article Published Date : Oct 01, 2004

Authors : Jan Czerwiński, Elzbieta Bartnikowska, Hanna Leontowicz, Ewa Lange, Maria Leontowicz, Elena Katrich, Simon Trakhtenberg, Shela Gorinstein

Study Type : Animal Study

Additional Links

Substances : [Amaranth : CK\(22\) : AC\(8\)](#)

Diseases : [Cholesterol: High : CK\(634\) : AC\(152\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hypercholesterolemia : CK\(692\) : AC\(159\)](#)

Cordyceps sinensis

[Cordyceps s may have therapeutic value in the treatment of pulmonary hypertension. - GMI](#)

Summary

Pubmed Data : Saudi Med J. 2010 Sep;31(9):974-9. PMID: [20844807](#)

Article Published Date : Sep 01, 2010

Authors : Bao-an Gao, Jun Yang, Ji Huang, Xiang-jun Cui, Shi-xiong Chen, Hong-yan Den, Guang-ming Xiang

Study Type : In Vitro Study

Additional Links

Substances : [Cordyceps sinensis](#) : CK(110) : AC(41)

Diseases : [Hypoxia](#) : CK(84) : AC(39), [Pulmonary Hypertension](#) : CK(108) : AC(34)

[Cordyceps significantly improves blood lipid profiles.](#) - GMI Summary

Pubmed Data : Biol Pharm Bull. 2003 Jan;26(1):84-7. PMID: [12520179](#)

Article Published Date : Jan 01, 2003

Authors : Jong-Ho Koh, Jin-Man Kim, Un-Jae Chang, Hyung-Joo Suh

Study Type : Animal Study

Additional Links

Substances : [Cordyceps sinensis](#) : CK(110) : AC(41)

Diseases : [High Cholesterol](#) : CK(865) : AC(192)

Eggplant

[Eggplant has a positive effect on plasma lipid levels, lipidic peroxidation and attenuates endothelial dysfunction in experimental hypercholesterolemia](#) - GMI Summary

Pubmed Data : Arq Bras Cardiol. 1998 Feb;70(2):87-91. PMID: [9659714](#)

Article Published Date : Feb 01, 1998

Authors : P A Jorge, L C Neyra, R M Osaki, E de Almeida, N Bragagnolo

Study Type : Animal Study

Additional Links

Substances : [Eggplant](#) : CK(20) : AC(10)

Diseases : [Endothelial Dysfunction](#) : CK(649) : AC(164), [High Cholesterol](#) : CK(865) : AC(192), [Oxidative Stress](#) : CK(1631) : AC(660)

Additional Keywords : [Plant Extracts](#) : CK(3121) : AC(1098)

[Eggplant phenolics may inhibit key enzymes associated with the pathogenesis of type 2 diabetes and hypertension.](#) - GMI Summary

Pubmed Data : Bioresour Technol. 2008 May;99(8):2981-8. Epub 2007 Aug 13. PMID: [17706416](#)

Article Published Date : May 01, 2008

Authors : Y-I Kwon, E Apostolidis, K Shetty

Study Type : Commentary

Additional Links

Substances : [Eggplant](#) : CK(20) : AC(10), [Fiber](#) : CK(381) : AC(71)

Diseases : [Diabetes Mellitus: Type 2](#) : CK(2227) : AC(301), [Hypertension](#) : CK(1319) : AC(254)

Pharmacological Actions : [Alpha-glucosidase inhibitor](#) : CK(22) : AC(11), [Angiotensin-Converting Enzyme Inhibitors](#) : CK(23) : AC(12), [Enzyme Inhibitors](#) : CK(340) : AC(201)

Exercise: Swimming

[Low-intensity swimming maintains normoglycemia, insulin tissue sensitivity, and normal lipid profile in mice programmed to develop metabolic syndrome. - GMI Summary](#)

Pubmed Data : Biomed Sci Instrum. 2007;43:272-7. PMID: [21539446](#)

Article Published Date : Jan 01, 2007

Authors : Dionízia Xavier Scomparin, Sabrina Grassioli, Rodrigo Mello Gomes, Rosana Torrezan, Júlio Cezar de Oliveira, Clarice Gravena, Carolina Costa Pêra, Paulo Cezar de Freitas Mathias

Study Type : Animal Study

Additional Links

Diseases : [Excitotoxicity : CK\(54\) : AC\(29\)](#), [Hyperlipidemia : CK\(403\) : AC\(105\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [MSG Toxicity : CK\(4\) : AC\(2\)](#)

Therapeutic Actions : [Exercise: Swimming : CK\(2\) : AC\(1\)](#)

Fructose

[High fructose feeding induces copper deficiency in rats which may contribute to metabolic syndrome, including hyperlipidemia and fatty liver. - GMI Summary](#)

Pubmed Data : J Hepatol. 2011 Jul 19. Epub 2011 Jul 19. PMID: [21781943](#)

Article Published Date : Jul 19, 2011

Authors :

Ming Song, Dale A Schuschke, Zhanxiang Zhou, Theresa Chen, William M Pierce, Renwei Wang, W Thomas Johnson, Craig J McClain

Study Type : Animal Study

Additional Links

Substances : [Fructose : CK\(4\) : AC\(2\)](#)

Diseases : [Copper Deficiency : CK\(44\) : AC\(5\)](#), [Dyslipidemias : CK\(157\) : AC\(29\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#), [Nonalcoholic fatty liver disease \(NAFLD\) : CK\(50\) : AC\(16\)](#), [Obesity : CK\(963\) : AC\(251\)](#)

Additional Keywords : [Diseases that are Linked : CK\(1588\) : AC\(254\)](#)

Grapefruit

[Grapefruit extract and juice reduces ateriral blood pressure in vitro and in vivo. - GMI Summary](#)

Pubmed Data : Phytother Res. 2009 Jul;23(7):948-54. PMID: [19153985](#)

Article Published Date : Jul 01, 2009

Authors : J A Díaz-Juárez, F A Tenorio-López, G Zarco-Olvera, L Del Valle-Mondragón, J C Torres-Narváez, G Pastelín-Hernández

Study Type : Animal Study

Additional Links

Substances : [Grapefruit : CK\(91\) : AC\(30\)](#), [Grapefruit Seed Extract : CK\(46\) : AC\(15\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Hypotensive : CK\(239\) : AC\(45\)](#)

[Grapefruit oil inhibits adipogenesis in cultured subcutaneous preadipocytes and adipocytes. - GMI Summary](#)

Pubmed Data : Zhong Yao Cai. 2008 Oct;31(10):1514-8. PMID: [20143292](#)

Article Published Date : Oct 01, 2008

Authors : Shinichiro Haze, Keiko Sakai, Yoko Gozu, Mio Moriyama

Study Type : In Vitro Study

Additional Links

Substances : [Grapefruit : CK\(91\) : AC\(30\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Obesity : CK\(963\) : AC\(251\)](#), [Overweight : CK\(367\) : AC\(82\)](#)

Pharmacological Actions : [Anti-Adipogenic : CK\(79\) : AC\(38\)](#)

Krill

[Krill oil is superior to fish oil at reducing liver triglyceride and cholesterol levels.](#) - GMI

Summary

Pubmed Data : J Anim Physiol Anim Nutr (Berl). 2011 Feb 25. Epub 2011 Feb 25. PMID: [21429045](#)

Article Published Date : Feb 25, 2011

Authors : A Ferramosca, L Conte, V Zara

Study Type : Animal Study

Additional Links

Substances : [Krill : CK\(79\) : AC\(16\)](#)

Diseases : [Fatty Liver : CK\(449\) : AC\(109\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Additional Keywords : [Krill-Fish Comparison : CK\(15\) : AC\(4\)](#)

[Krill oil supplementation may favorably alter endocannabinoid related changes associated with metabolic syndrome.](#) - GMI Summary

Pubmed Data : Nutr Metab (Lond). 2011 Jul 13;8(1):51. Epub 2011 Jul 13. PMID: [21749725](#)

Article Published Date : Jul 13, 2011

Authors : Fabiana Piscitelli, Gianfranca Carta, Tiziana Bisogno, Elisabetta Murru, Lina Cordeddu, Kjetil Berge, Sally Tandy, Jeffrey S Cohn, Mikko Griinari, Sebastiano Banni, Vincenzo Di Marzo

Study Type : Animal Study

Additional Links

Substances : [Krill : CK\(79\) : AC\(16\)](#)

Diseases : [Endocannabinoid Disorders : CK\(20\) : AC\(9\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Pharmacological Actions : [Endocannabinoid down-regulation : CK\(12\) : AC\(2\)](#)

Moringa oleifera

[Moringa oleifera contains compounds with hypotensive activity.](#) - GMI Summary

Pubmed Data : Planta Med. 1998 Apr;64(3):225-8. PMID: [9581519](#)

Article Published Date : Apr 01, 1998

Authors : S Faizi, B S Siddiqui, R Saleem, K Aftab, F Shaheen, A H Gilani

Study Type : In Vitro Study

Additional Links

Substances : [Moringa oleifera : CK\(74\) : AC\(29\)](#)

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Hypotensive : CK\(239\) : AC\(45\)](#)

[Moringa oleifera has a cholesterol lowering effect in an animal model.](#) - GMI Summary

Pubmed Data : J Ethnopharmacol. 2003 Jun;86(2-3):191-5. PMID: [12738086](#)

Article Published Date : Jun 01, 2003

Authors : Komal Mehta, R Balaraman, A H Amin, P A Bafna, O D Gulati

Study Type : Animal Study

Additional Links

Substances : [Moringa oleifera](#) : CK(74) : AC(29)

Diseases : [Cholesterol: High](#) : CK(634) : AC(152), [High Cholesterol](#) : CK(865) : AC(192), [Hypercholesterolemia](#) : CK(692) : AC(159)

Palm Oil

[Dietary red palm oil reduces ischaemia-reperfusion injury in rats fed a hypercholesterolaemic diet.](#) - GMI Summary

Pubmed Data : Br J Nutr. 2007 Apr;97(4):653-60. PMID: [17349077](#)

Article Published Date : Apr 01, 2007

Authors : Maritza J Kruger, Anna-Mart Engelbrecht, Johan Esterhuysen, Eugene F du Toit, Jacques van Rooyen

Study Type : Animal Study

Additional Links

Substances : [Palm Oil](#) : CK(41) : AC(18)

Diseases : [Heart Disease: Ischemic](#) : CK(78) : AC(16), [High Cholesterol](#) : CK(865) : AC(192), [Ischemia: Myocardial](#) : CK(25) : AC(13)

Pharmacological Actions : [Apoptotic](#) : CK(1423) : AC(1028), [Cardioprotective](#) : CK(540) : AC(179)

[Review: Palm oil has numerous beneficial health effects.](#) - GMI Summary

Pubmed Data : Food Nutr Bull. 2002 Mar;23(1):11-22. PMID: [11975364](#)

Article Published Date : Mar 01, 2002

Authors : A S H Ong, S H Goh

Study Type : Commentary

Additional Links

Substances : [Palm Oil](#) : CK(41) : AC(18)

Diseases : [Apolipoprotein Disorders](#) : CK(28) : AC(9), [Cardiovascular Diseases](#) : CK(3633) : AC(602), [Cholesterol: LDL/HDL ratio](#) : CK(287) : AC(52), [Dyslipidemias](#) : CK(157) : AC(29), [Triglycerides: Elevated](#) : CK(227) : AC(64)

Pharmacological Actions : [Cardioprotective](#) : CK(540) : AC(179)

Pterostilbene

[Pterocarpus marsupium prevents the alteration in metabolic patterns induced in the normal rat by feeding an adequate diet containing fructose as sole carbohydrate.](#) - GMI Summary

Pubmed Data : Altern Med Rev. 2009 Dec;14(4):364-72. PMID: [15955128](#)

Article Published Date : Dec 01, 2009

Authors : J K Grover, V Vats, S S Yadav

Study Type : Animal Study

Additional Links

Substances : [Pterocarpus marsupium](#) : CK(29) : AC(9), [Pterostilbene](#) : CK(44) : AC(29)

Diseases : [Diabetes Mellitus: Type 2](#) : CK(2227) : AC(301), [Fructose-Induced Toxicity](#) : CK(129) : AC(41), [Insulin Resistance](#) : CK(707) : AC(184)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

[Pterostilbene has lipid and glucose lowering activity.](#) - GMI Summary

Pubmed Data : J Agric Food Chem. 2005 May 4;53(9):3403-7. PMID: [15853379](#)

Article Published Date : May 04, 2005

Authors : Agnes M Rimando, Rangaswamy Nagmani, Dennis R Feller, Wallace Yokoyama

Study Type : In Vitro Study

Additional Links

Substances : [Pterostilbene : CK\(44\) : AC\(29\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#)

Pharmacological Actions : [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#), [Hypolipidemic : CK\(282\) : AC\(75\)](#)

Additional Keywords : [Stilbenes : CK\(424\) : AC\(245\)](#)

Sprouts

[Mung bean sprout and seed coat extracts improve symptoms of type 2 diabetes in mice.](#) - GMI Summary

Pubmed Data : J Agric Food Chem. 2008 Oct 8;56(19):8869-73. Epub 2008 Sep 4. PMID: [18767859](#)

Article Published Date : Oct 08, 2008

Authors : Yang Yao, Feng Chen, Mingfu Wang, Jiashi Wang, Guixing Ren

Study Type : Animal Study

Additional Links

Substances : [Mung Bean : CK\(10\) : AC\(3\)](#), [Sprouts : CK\(72\) : AC\(35\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

[Sprouting buckwheat triggers a variety of nutritional changes increasing hypocholesterolemic, hypotriglyceridemic, and antioxidative activities.](#) - GMI Summary

Pubmed Data : J Agric Food Chem. 2008 Feb 27;56(4):1216-23. Epub 2008 Jan 24. PMID: [18217700](#)

Article Published Date : Feb 27, 2008

Authors : Li-Yun Lin, Chiung-Chi Peng, Ya-Lu Yang, Robert Y Peng

Study Type : In Vitro Study

Additional Links

Substances : [Buckwheat : CK\(50\) : AC\(16\)](#), [Flavonoids : CK\(732\) : AC\(287\)](#), [Polyphenols : CK\(382\) : AC\(170\)](#), [Quercetin : CK\(265\) : AC\(134\)](#), [Rutin : CK\(75\) : AC\(29\)](#), [Sprouts : CK\(72\) : AC\(35\)](#), [Vitamin C : CK\(817\) : AC\(234\)](#)

Diseases : [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hyperlipidemia : CK\(403\) : AC\(105\)](#), [Triglycerides: Elevated : CK\(227\) : AC\(64\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Hypolipidemic : CK\(282\) : AC\(75\)](#)

Additional Keywords : [Plant Extracts : CK\(3121\) : AC\(1098\)](#)

Stilbenes

[Resveratrol modulates adipokine expression and improves insulin sensitivity in adipocytes.](#) - GMI Summary

Pubmed Data : Biochimie. 2010 Jul;92(7):789-96. Epub 2010 Feb 25. PMID: [20188786](#)

Article Published Date : Jul 01, 2010

Authors : Liu Kang, Wang Heng, An Yuan, Liu Baolin, Huang Fang

Study Type : In Vitro Study

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#), [Stilbenes : CK\(123\) : AC\(88\)](#)

Diseases : [Inflammation : CK\(829\) : AC\(330\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Lipopolysaccharide-Induced Toxicity : CK\(235\) : AC\(122\)](#)

Pharmacological Actions : [Anti-Inflammatory Agents : CK\(999\) : AC\(390\)](#), [Insulin Sensitizers : CK\(87\) : AC\(16\)](#), [Interleukin-6 Downregulation : CK\(393\) : AC\(131\)](#), [NF-kappaB inhibitor : CK\(631\) : AC\(382\)](#), [Tumor Necrosis Factor \(TNF\) Alpha Inhibitor : CK\(858\) : AC\(330\)](#)

[Resveratrol prevents the development of pathological cardiac hypertrophy and contractile dysfunction in the spontaneously hypertensive rats without lowering blood pressure.](#) - GMI

Summary

Pubmed Data : Am J Hypertens. 2010 Feb;23(2):192-6. Epub 2009 Nov 26. PMID: [19942861](#)

Article Published Date : Feb 01, 2010

Authors : Sijo J Thandapilly, Peter Wojciechowski, John Behbahani, Xavier L Louis, Liping Yu, Danijel Juric, Melanie A Kopilas, Hope D Anderson, Thomas Netticadan

Study Type : Animal Study

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#), [Stilbenes : CK\(123\) : AC\(88\)](#)

Diseases : [Cardiac Hypertrophy : CK\(48\) : AC\(22\)](#), [Cardiomegaly : CK\(13\) : AC\(7\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#), [Lipid Peroxidation : CK\(247\) : AC\(103\)](#), [Oxidative Stress : CK\(1631\) : AC\(660\)](#)

Pharmacological Actions : [Antioxidants : CK\(3106\) : AC\(1219\)](#), [Cardioprotective : CK\(540\) : AC\(179\)](#)

[Review: resveratrol may improve insulin action and aging.](#) - GMI Summary

Pubmed Data : Curr Aging Sci. 2008 Dec;1(3):145-51. PMID: [20021385](#)

Article Published Date : Dec 01, 2008

Authors : Sara Fröjdö, Christine Durand, Luciano Pirola

Study Type : Review

Additional Links

Substances : [Resveratrol : CK\(1005\) : AC\(591\)](#), [Stilbenes : CK\(123\) : AC\(88\)](#)

Diseases : [Aging : CK\(1231\) : AC\(350\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#)

Water: Deep Sea

[Deep-sea water improves cardiovascular hemodynamics in rabbits with elevated cholesterol.](#) - GMI Summary

Pubmed Data : Biol Pharm Bull. 2008 Jan;31(1):38-44. PMID: [18175939](#)

Article Published Date : Jan 01, 2008

Authors : Shin-Ichiro Katsuda, Takeshi Yasukawa, Koji Nakagawa, Masao Miyake, Masao Yamasaki, Kiyooki Katahira, Motohiko Mohri, Tsuyoshi Shimizu, Akihiro Hazama

Study Type : Animal Study

Additional Links

Substances : [Water: Deep Sea : CK\(21\) : AC\(7\)](#)

Diseases : [Atherosclerosis : CK\(461\) : AC\(71\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hypertension : CK\(1319\) : AC\(254\)](#)

Pharmacological Actions : [Hypotensive : CK\(239\) : AC\(45\)](#)

Zinc Acetate

[Long term excessive Zn-supplementation promotes metabolic syndrome-X in rats fed sucrose and fat rich semisynthetic diet. - GMI Summary](#)

Pubmed Data : Indian J Exp Biol. 2006 Sep;44(9):705-18. PMID: [16999025](#)

Article Published Date : Sep 01, 2006

Authors : S K Taneja, R Mandal, S Girhotra

Study Type : Animal Study

Additional Links

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Problem Substances : [Zinc Acetate : CK\(3\) : AC\(2\)](#), [Zinc Chloride : CK\(21\) : AC\(8\)](#), [Zinc sulfate : CK\(5\) : AC\(4\)](#)

Zinc Chloride

[Long term excessive Zn-supplementation promotes metabolic syndrome-X in rats fed sucrose and fat rich semisynthetic diet. - GMI Summary](#)

Pubmed Data : Indian J Exp Biol. 2006 Sep;44(9):705-18. PMID: [16999025](#)

Article Published Date : Sep 01, 2006

Authors : S K Taneja, R Mandal, S Girhotra

Study Type : Animal Study

Additional Links

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Problem Substances : [Zinc Acetate : CK\(3\) : AC\(2\)](#), [Zinc Chloride : CK\(21\) : AC\(8\)](#), [Zinc sulfate : CK\(5\) : AC\(4\)](#)

Zinc sulfate

[Long term excessive Zn-supplementation promotes metabolic syndrome-X in rats fed sucrose and fat rich semisynthetic diet. - GMI Summary](#)

Pubmed Data : Indian J Exp Biol. 2006 Sep;44(9):705-18. PMID: [16999025](#)

Article Published Date : Sep 01, 2006

Authors : S K Taneja, R Mandal, S Girhotra

Study Type : Animal Study

Additional Links

Diseases : [Hypertension : CK\(1319\) : AC\(254\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Problem Substances : [Zinc Acetate : CK\(3\) : AC\(2\)](#), [Zinc Chloride : CK\(21\) : AC\(8\)](#), [Zinc sulfate : CK\(5\) : AC\(4\)](#)

Anthocyanins

[Anthocyanins, found abundantly in berries, may reduce abdominal obesity and metabolic syndrome. - GMI Summary](#)

Pubmed Data : J Agric Food Chem. 2008 Feb 13;56(3):642-6. Epub 2008 Jan 23. PMID: [18211021](#)

Article Published Date : Feb 13, 2008

Authors : Takanori Tsuda

Study Type : Commentary

Additional Links

Substances : [Anthocyanins : CK\(44\) : AC\(16\)](#), [Berries: All : CK\(666\) : AC\(196\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Berries: All

[Anthocyanins, found abundantly in berries, may reduce abdominal obesity and metabolic syndrome.](#) - GMI Summary

Pubmed Data : J Agric Food Chem. 2008 Feb 13;56(3):642-6. Epub 2008 Jan 23. PMID: [18211021](#)

Article Published Date : Feb 13, 2008

Authors : Takanori Tsuda

Study Type : Commentary

Additional Links

Substances : [Anthocyanins : CK\(44\) : AC\(16\)](#), [Berries: All : CK\(666\) : AC\(196\)](#)

Diseases : [Abdominal Obesity \(Midsection Fat\) : CK\(227\) : AC\(47\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Soy: Fermented

[Isoflavonoids and peptides from meju, long-term fermented soybeans, increase insulin sensitivity and exert insulinotropic effects in vitro.](#) - GMI Summary

Pubmed Data : Nutrition. 2011 Feb;27(2):244-52. Epub 2010 Jun 11. PMID: [20541368](#)

Article Published Date : Feb 01, 2011

Authors : Dae Young Kwon, Sang Mee Hong, Il Sung Ahn, Min Jung Kim, Hye Jeong Yang, Sunmin Park

Study Type : In Vitro Study

Additional Links

Substances : [Daidzein : CK\(76\) : AC\(27\)](#), [Genistein : CK\(395\) : AC\(169\)](#), [Isoflavones : CK\(428\) : AC\(122\)](#), [Soy : CK\(1229\) : AC\(332\)](#), [Soy: Fermented : CK\(69\) : AC\(23\)](#)

Diseases : [Diabetes Mellitus: Type 2 : CK\(2227\) : AC\(301\)](#), [Insulin Resistance : CK\(707\) : AC\(184\)](#), [Metabolic Syndrome X : CK\(376\) : AC\(97\)](#)

Pharmacological Actions : [Glucagon Like peptide 1 \(GLP-1\) Up-regulation : CK\(129\) : AC\(30\)](#), [Hypoglycemic Agents : CK\(441\) : AC\(143\)](#), [Insulinotropic : CK\(15\) : AC\(7\)](#)

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