

About GrassrootsHealth

GrassrootsHealth is a nonprofit public health research organization dedicated to moving public health messages regarding vitamin D from science into practice. It has a panel of 48 senior vitamin D researchers from around the world. GrassrootsHealth is currently running the D*action population intervention program to solve the vitamin D deficiency epidemic worldwide. Under the D*action umbrella, there are programs looking at the entire population as well as a targeted program for breast cancer prevention, and the 'Protect Our Children *NOW!*' program to reduce the complications of vitamin D deficiency encountered during pregnancy and childhood.

A Scientists' Call to Action has been issued to alert the public to the importance of having preventive vitamin D serum levels between 40 and 60 ng/ml. Reaching this level is safe and inexpensive.

The benefit of an adequate vitamin D level to each individual may include better overall health and a reduction in illness and, ultimately, a significant reduction in health care costs. The benefit of adequate vitamin D levels to society/businesses is a more productive workforce and, lower health care costs.

Join D*action: www.grassrootshealth.net
Get your blood level tested, take action!

Download the Disease Incidence Prevention Chart showing serum levels required to prevent many diseases:
www.grassrootshealth.net/dipchartng.pdf

D*action is a public health project of
GrassrootsHealth, a 501c3 non-profit organization.
www.grassrootshealth.net
760-579-8141
info@grassrootshealth.org

Call to D*action Scientists

International Scientists Panel

Kalliopi Kotsa, MD, PhD Ahepa University Hospital Thessaloniki ,Greece
Spyridon Karras , MD, PhD Ahepa University Hospital Thessaloniki ,Greece
Mathew Mizwicki, PhD Baxter International
Michael F. Holick, PhD, MD Boston University School of Medicine
Robert P. Heaney, MD Creighton University
Joan M. Lappe, PhD, RN Creighton University
Vin Tangpricha, MD, PhD Emory University
Carlos A. Camargo, Jr, MD, Dr PH Harvard University
Edward Giovannucci, MD, ScD Harvard University
Walter C. Willett, Dr PH, MD Harvard University
Donald L. Trump, MD Inova Comprehensive Cancer and Research Institute
Raimund von Helden, MD Institute VitaminDelta
John H. White, PhD McGill University
Stefan Pilz, MD Medical University of Graz, Austria
Bruce W. Hollis, PhD Medical University of South Carolina
Carol L. Wagner, MD Medical University of South Carolina
Laura P. Schoepf, PhD Mt. San Jacinto College
Tetsuya Mizoue, MD, PhD National Center for Global Health and Medicine
Adrian F. Gombart, PhD Oregon State University, Linus Pauling Institute
Candace Johnson, PhD Roswell Park Cancer Institute
Benjamin Jacobs, MD Royal National Orthopaedic Hospital, United Kingdom
Joerg Spitz, MD Society For Medical Information and Prevention
William B. Grant, PhD Sunlight, Nutrition and Health Research Center
JoEllen Welsh, PhD University of Albany- SUNY
Gerry Schwalfenberg, MD, CCFP University of Alberta
Cedric Annweiler, MD, PhD University of Angers, France
Robert Scragg, MD, PhD University of Auckland
Martin Hewison, PhD University of Birmingham
Bruce D. Hammock, PhD University of California Davis
Hari A. Reddy, PhD University of California Davis
Ray Rodriguez, PhD University of California Davis
John Adams, MD University of California Los Angeles
Milan Fiala, MD University of California Los Angeles
H. Phillip Koeffler, MD University of California Los Angeles
Keith C. Norris, MD University of California Los Angeles
Anthony W. Norman, PhD University of California Riverside
Richard L. Gallo, MD, PhD University of California San Diego
Cedric F. Garland, Dr PH University of California San Diego
Frank C. Garland, PhD University of California San Diego†
Edward D. Gorham, PhD University of California San Diego
Tissa Hata, MD University of California San Diego
David Gardner, MS, MD University of California San Francisco
Bernard P. Halloran, PhD University of California San Francisco
Susan J. Whiting, PhD University of Saskatchewan
Reinhold Vieth, PhD University of Toronto, Mt Sinai Hospital
Heidi S. Cross, PhD Vienna Medical University
John J. Cannell, MD Vitamin D Council
Alexander Wunsch, MD Wismar University of Applied Sciences



Vitamin **D***action

A Consortium of Scientists, Institutions and Individuals
Committed to Solving the Worldwide Vitamin D Deficiency Epidemic

Can
Vitamin D Prevent
Breast Cancer?

What is your D level?



GrassrootsHealth
A Public Health Promotion Organization

What's the evidence?*

There have been many studies on vitamin D and breast cancer that demonstrate a 50-80% lower risk of breast cancer diagnosis for women with serum levels > 40 ng/ml versus levels of 25 ng/ml or lower.

77% reduction in all non-skin cancer risk: A 2007 randomized clinical trial at Creighton University led by Joan Lappe, PhD, RN, FAAN, found that a dose of 1100 IU/day of vitamin D along with 1400-1500 mg/day of calcium helped women aged 55 and older raise their average serum vitamin D level to 38 ng/ml (from a baseline of 29 ng/ml) and prevent approximately 4 out of 5, or 80%, of all invasive cancers including breast cancer.

70% lower breast cancer risk: A 2013 case control study at UCSD School of Medicine found that the three months prior to tumor diagnosis was a relevant window of time for cancer prevention and that those with vitamin D levels ≥ 35 ng/ml had a 70% lower risk of developing breast cancer than those with levels <15 ng/ml.

83% lower breast cancer risk: Lowe et al. demonstrated in a 2005 case control study that women with serum levels of >20 ng/ml had more than a five-fold (80%) lower breast cancer risk compared to women with levels <20 ng/ml.

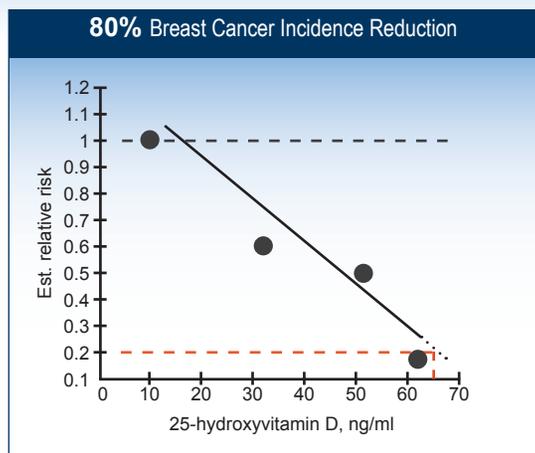
69% lower breast cancer risk: In a 2008 case control study, Abbas et al. found that those with 25(OH)D levels ≥ 30 ng/ml had an almost 70% lower risk of post-menopausal breast cancer compared to those with levels <12 ng/ml.

62% lower breast cancer risk: In a 2009 case control study, Rejnmark found that pre-menopausal women with 25(OH)D levels ≥ 34 ng/ml had more than a 60% lower breast cancer risk compared to women with levels <24 ng/ml.

63% lower breast cancer risk: In a 2011 case control study, Yao et. al. found that women with 25(OH)D levels ≥ 30 ng/ml had more than a 60% lower breast cancer risk compared to women with levels <20 ng/ml. Among post-menopausal women, the risk was a 71% lower.

*References at grassrootshealth.net/breast-cancer-studies

How does vitamin D help?



Source: Garland et al. (2007) based on data in Lowe et al. (2006)

Vitamin D impacts our bones, regulates calcium and strengthens our immune system. Researchers have found vitamin D directly affects the cells in the breast.

Vitamin D Receptors

Inside almost every cell in the body is a vitamin D receptor (VDR). A VDR is a protein that controls the expression of genes. The vitamin D in our blood enters breast cells, binds to the VDRs, and triggers positive change, including preventing, slowing or even stopping cancer growth.

Source: JoEllen Welsh, PhD, University at Albany, State University of New York, Member of GrassrootsHealth Panel of Scientists

Daily doses of Vitamin D

It is important to get vitamin D3 through diet, sunlight, or supplements every day because when vitamin D is sent directly to the body tissue it is only active for 24 hours. This is new research, as the vitamin D which aids in bone health is active for up to 3 weeks in the body. To boost our immune system and ward off cancer - we need new input every day.

Source: Bruce H. Hollis, PhD, Medical University of South Carolina Member of GrassrootsHealth Panel of Scientists

What should you do?

Act now – it is never too early to prevent disease

Measure the 25-hydroxyvitamin D serum levels of your whole family.

Achieve daily intake from UVB exposure, supplements, and/or foods to get serum levels to 40-60 ng/ml (100-150 nmol/L). Consult GrassrootsHealth charts on intake vs. serum levels.

Expected Level (ng/ml) ▶	20	30	40	50	60
10 (ng/ml) ▶	2000	4000	6000	10,000	10,000
15 (ng/ml) ▶	1000	3000	6000	9000	10,000
20 (ng/ml) ▶		2000	5000	8000	10,000
25 (ng/ml) ▶		1000	4000	7000	10,000
30 (ng/ml) ▶			3000	6000	10,000
35 (ng/ml) ▶			1000	5000	9000
40 (ng/ml) ▶				3000	8000
45 (ng/ml) ▶				2000	6000
50 (ng/ml) ▶					4000

* values rounded to the nearest 1000 IU; highest recommended intake is 10,000 IU/day

The latest Institute of Medicine (IOM) report, 2010, indicated 10,000 IU/day is considered the “no observed adverse effect level” (NOAEL) and 4000 IU/day can be considered a safe upper intake level for adults aged 19 and older.

If you are a woman age 60 years or older, have no current cancer, and are not being treated for cancer, you qualify for our breast cancer prevention study. Get your D levels checked every 6 months and help fund research on vitamin D and breast cancer. Learn more at grassrootshealth.net/breast-cancer-prevention.