

The Health Consequences of Involuntary Exposure to Tobacco Smoke

A Report of the Surgeon General



Secondhand Smoke

what it means to

you



Secondhand Smoke

It hurts you.

It doesn't take much.

It doesn't take long.

The 2006 Surgeon General's report has new information about how breathing secondhand smoke hurts your health. You can find more information about this report by going to the Surgeon General's website at www.surgeongeneral.gov.

More information is also available by going to the Centers for Disease Control and Prevention (CDC) website at www.cdc.gov/tobacco.

Secondhand smoke is dangerous.

The Surgeon General of the United States, working with a team of leading health experts, studied how breathing secondhand tobacco smoke affects you.

This booklet explains what scientists have learned about the dangers of secondhand smoke. It also tells you how to protect yourself and your family.

What is secondhand smoke?

When a person smokes near you, you breathe secondhand smoke. Secondhand smoke is the combination of smoke from the burning end of the cigarette and the smoke breathed out by smokers. When you breathe secondhand smoke, it is like you are smoking.

Whether you are young or old, healthy or sick, secondhand smoke is dangerous.



What we now know:

- There is no safe amount of secondhand smoke. Breathing even a little secondhand smoke can be dangerous.
- Breathing secondhand smoke is a known cause of sudden infant death syndrome (SIDS). Children are also more likely to have lung problems, ear infections, and severe asthma from being around smoke.
- Secondhand smoke causes heart disease and lung cancer.
- Separate “no smoking” sections DO NOT protect you from secondhand smoke. Neither does filtering the air or opening a window.
- Many states and communities have passed laws making workplaces, public places, restaurants, and bars smoke-free. But millions of children and adults still breathe secondhand smoke in their homes, cars, workplaces, and in public places.



No amount of secondhand smoke is safe.

When you are around a person who is smoking, you inhale the same dangerous chemicals as he or she does. Breathing secondhand smoke can make you sick. Some of the diseases that secondhand smoke causes can kill you.

Protect yourself: do not breathe secondhand smoke. But completely avoiding secondhand smoke is very hard to do. Most of us breathe it whether we know it or not. You can breathe secondhand smoke in restaurants, around the doorways of buildings, and at work. When someone smokes inside a home, everyone inside breathes secondhand smoke. Some children even breathe smoke in day care.

There is no safe amount of secondhand smoke. Children, pregnant women, older people, and people with heart or breathing problems should be especially careful. Even being around secondhand smoke for a short time can hurt your health. Some effects are temporary. But others are permanent.



WHAT CAN YOU DO?

Make your environment smoke-free.

- *Make your home and car smoke-free.*
- *Visit smoke-free restaurants and public places.*
- *Ask people not to smoke around you and your children.*

Secondhand smoke contains poisons.

The chemicals found in secondhand smoke hurt your health and many are known to cause cancer. You breathe in thousands of chemicals when you are around someone who is smoking.

WHAT THE SCIENCE SAYS

How do scientists measure exposure to secondhand smoke?

Researchers measure

- how many people are smoking
- how many cigarettes they smoke
- time spent in the room
- levels of nicotine in the air, and
- levels of nicotine by-products in the body



Secondhand Smoke is toxic

Cancer Causing Chemicals

All are extremely toxic



Toxic Metals

Can cause cancer
Can cause death
Can damage the brain and kidneys

Secondhand Smoke

causes death and sickness in children.

▶ *Breathing secondhand smoke is a known cause of sudden infant death syndrome (SIDS).*

▶ *Children are also more likely to have lung problems, ear infections, and severe asthma.*

Babies are hurt by secondhand smoke.

Tobacco smoke harms babies before and after they are born. Unborn babies are hurt when their mothers smoke or if others smoke around their mothers. Babies also may breathe secondhand smoke after they are born. Because their bodies are developing, poisons in smoke hurt babies even more than adults. Babies under a year old are in the most danger.

Secondhand smoke is a known cause of sudden infant death syndrome (SIDS).

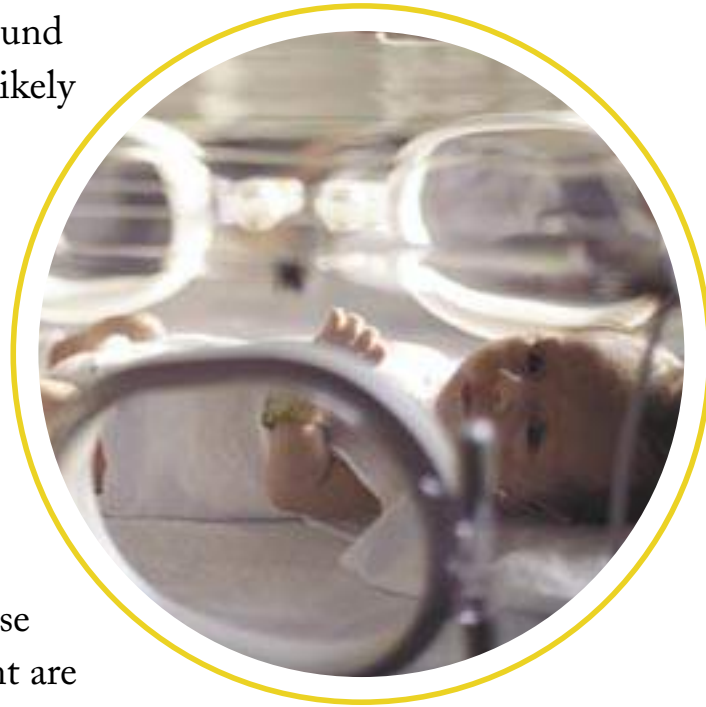
The sudden, unexplained, unexpected death of an infant before age 1 year is known as SIDS. The exact way these deaths happen is still not known. We suspect it may be caused by changes in the brain or lungs that affect how a baby breathes. During pregnancy, many of the compounds in secondhand smoke change the way a baby's brain develops. Mothers who smoke while pregnant are more likely to have their babies die of SIDS.

Babies who are around secondhand smoke—from their mother, their father, or anyone else—after they are born, are also more likely to die of SIDS than children who are not around secondhand smoke.



Secondhand smoke causes low birth weight and lung problems in infants.

Babies whose mothers are around secondhand smoke are more likely to have lower birth weights. These babies can have more health problems because they breathe smoke. For example, they are more likely to have infections than babies who are not around secondhand smoke.



Studies show that babies whose mothers smoke while pregnant are more likely to have lungs that do not develop in a normal way. Babies who breathe secondhand smoke after birth also have weaker lungs. These problems can continue as they grow older and even when they become adults.

WHAT THE SCIENCE SAYS

The main place young children breathe secondhand smoke is in their homes. Almost 3 million children in the United States under the age of 6 years old breathe secondhand smoke at home at least 4 days per week.

Older children are in danger, too.

Studies show that older children whose parents smoke get sick more often. Like babies, their lungs grow less than children who do not breathe secondhand smoke. They get more bronchitis and pneumonia. Wheezing and coughing are also more common in children who breathe secondhand smoke.

Secondhand smoke can trigger an asthma attack in a child. Children with asthma who are around secondhand smoke have worse asthma attacks and have attacks more often. More than 40 percent of children who go to the emergency room for asthma live with smokers. A severe asthma attack can put a child's life in danger.



Ear infections are painful. Children whose parents smoke around them get more ear infections. They also have fluid in their ears more often and have more operations to put in ear tubes for drainage.



WHAT CAN PARENTS DO?

Protect your children's health.

- Do not allow anyone to smoke near your child.
- Do not smoke or allow others to smoke in your home or car. Opening a window does not protect your children from smoke.
- Use a smoke-free day care center.
- Do not take your child to restaurants or other indoor public places that allow smoking.
- Teach older kids to stay away from secondhand smoke.

Secondhand Smoke

causes heart disease and lung cancer in adults.

▶ *Breathing secondhand smoke for even a short time can have immediate bad effects.*

▶ *Over time, secondhand smoke can cause heart disease and lung cancer.*

Secondhand smoke hurts adults too.

The longer you are around secondhand smoke, the more likely it is to hurt you.

Nonsmokers who breathe smoke at home or at work are more likely to become sick and die from heart disease and lung cancer. Studies show that secondhand smoke may cause other serious diseases, too.

Secondhand smoke is bad for your heart.

Breathing secondhand smoke makes the platelets in your blood behave like those of a regular smoker. Even a short time in a smoky room causes your blood platelets to stick together. Secondhand smoke also damages the lining of your blood vessels. In your heart, these bad changes can cause a deadly heart attack.

Secondhand smoke changes how your heart, blood, and blood vessels work in many ways. Adults who breathe 5 hours of secondhand smoke daily have higher “bad” cholesterol that clogs arteries.

WHAT CAN YOU DO?

Protect your health.

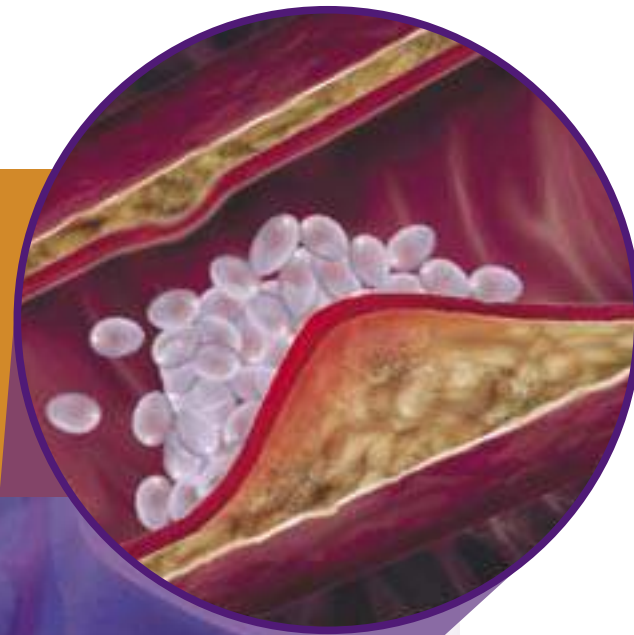
More restaurants and bars are smoke-free than ever. New York City restaurants and bars increased business by 9 percent after becoming smoke-free.

- *Choose restaurants and bars that are smoke-free. Thank them for being smoke-free.*
- *Let owners of businesses that are not smoke-free know that smoke bothers you. Tell them a “no smoking” section is not good enough.*

People who have heart disease should be very careful not to go where they will be around secondhand smoke.

The bottom line is that breathing secondhand smoke makes it more likely that you will get heart disease, have a heart attack, and die early.

Even a short time in a smoky room causes your blood platelets to stick together. Secondhand smoke also damages the lining of your blood vessels. In your heart, these bad changes can cause a deadly heart attack.



Secondhand smoke hurts your lungs.

Secondhand smoke includes many chemicals that are dangerous for your lungs. Secondhand smoke is especially dangerous for young children and adults with heart and lung disease.

Secondhand smoke causes lung cancer.

Secondhand tobacco smoke contains the same cancer-causing chemicals that smokers inhale.

Secondhand smoke causes lung cancer in adults who don't smoke. Breathing in secondhand smoke at home or work increases your chances of getting lung cancer by 20 percent to 30 percent.



WHAT CAN HEALTH CARE EXPERTS DO?

- Ask patients if they smoke and if they are around secondhand smoke.
- Advise patients who smoke to stop, and help them quit.
- Advise patients who smoke not to smoke around others.
- Advise nonsmokers to protect themselves by avoiding all secondhand smoke.
- Remind parents to protect their children from secondhand smoke.
- Discuss the added dangers of secondhand smoke for adults who have heart disease or asthma.
- Offer special warnings to parents when treating children with respiratory infections, asthma, or ear disease.

WHAT CAN EMPLOYERS DO?

Protect your workers.

Secondhand smoke is harmful for all workers. Restaurant and bar workers breathe more secondhand smoke than other workers and have higher rates of lung cancer.

- *Make sure your employees do not breathe secondhand smoke at work.*
- *Make all indoor places smoke-free.*
- *Don't allow smoking near doorways and entrances.*
- *Offer programs to help employees quit smoking.*

Secondhand smoke causes other breathing problems.

Secondhand smoke affects how well your lungs work, especially if you already have asthma or other breathing problems. Being around smoke makes you more congested and cough more.

Secondhand smoke also irritates your skin, eyes, nose, and throat. If you have allergies or a history of breathing problems, secondhand smoke can make you even sicker.

WARNING

You should especially speak to your doctor or healthcare provider about the dangers of secondhand smoke if:

- **You have breathing or heart problems**
- **You are pregnant**
- **You are concerned about your children's health**

Secondhand smoke may cause disease in other parts of your body.

We know that smoking causes many forms of cancer. Scientists believe even a little tobacco smoke is dangerous. Scientists also believe secondhand smoke may cause other diseases throughout your body. They are doing studies on possible links to stroke, breast cancer, nasal sinus cancer, and chronic lung problems in children and adults.



Secondhand smoke may cause disease in other parts of your body.

There's no such thing as a

NO SMOKING

section

No amount of secondhand smoke is safe.

Here are some unexpected ways you may breathe secondhand smoke every day:

- *Sitting in the "no smoking" section, even if it doesn't smell smoky*
- *Riding in a car while someone else is smoking, even if a window is open*
- *Being in a house where people are smoking, even if you're in another room*
- *Working in any restaurant, warehouse, or building that allows smoking inside, even if there is a filter or ventilation system*

Acknowledgments

This public document was prepared by the U.S. Department of Health and Human Services under the direction of the Office of the Surgeon General to make information in *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General* available to everyone.

Richard H. Carmona, M.D., M.P.H., F.A.C.S., Surgeon General, U.S. Public Health Service, Office of the Surgeon General, Office of the Secretary, Washington, D.C.

Kenneth P. Moritsugu, M.D., M.P.H., Deputy Surgeon General, U.S. Public Health Service, Office of the Surgeon General, Office of the Secretary, Washington, D.C.

A special thanks to the many people who provided expert advice and suggestions: Dr. Jonathan Samet, Senior Scientific Editor of the 2006 Surgeon General's report and Professor and Chairman, Department of Epidemiology, Bloomberg School of Public Health, Johns Hopkins University; Dr. Karen Near, Senior Science Advisor, Office of the Surgeon General, DHHS; Ellen Field, Deputy Assistant Secretary, DHHS; Dr. Terry Pechacek, Associate Director for Science, Office on Smoking and Health, CDC; Leslie Norman, Managing Editor of the 2006 Surgeon General's report, CDC; Dana Shelton, Associate Director for Policy, Planning and Coordination, Office on Smoking and Health, CDC; Peggy Williams, Writer-Editor, Quantell, Inc.; Gabrielle Robinson, Writer-Editor, Northrop Grumman; the CDC Health Literacy Workgroup; Dr. P. Lynne Stockton, CDC; Victoria Barnard, Teacher, Chamblee High School; Tommy Jones, Reviewer; and the scientific and communications staff of the Office on Smoking and Health, CDC.

Project Leads, Writers, and Editorial Assistance

Sarah Gregory, Health Communications Specialist, CDC
Peter Xiques, Writer, Science Applications International Corporation
Vickie Reddick, Writer, Science Applications International Corporation

Graphic Design

C. Mark Van Hook, Graphic Designer, Science Applications International Corporation



About the Surgeon General's Report

The Surgeon General is the nation's highest-ranking health officer. The President appoints the Surgeon General to help promote and protect the health of all Americans.

The Surgeon General gives Americans the best scientific information available on how to improve their health and reduce their risk of illness and injury.

The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General was prepared by many of the country's leading scientists and public health experts. The full report is more than 600 pages long. It took more than 4 years to complete. It is written for a scientific audience. However, Surgeon General Richard H. Carmona believes the findings are very important to everyone.

Suggested Citation: U.S. Department of Health and Human Services. *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General. Secondhand Smoke What It Means to You.* U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006.

Secondhand Smoke

It hurts you.

It doesn't take much.

It doesn't take long.

To download copies of this booklet or the full Surgeon General's report, *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*, go to

www.cdc.gov/tobacco.

To order single copies of these documents, call toll free

1-800-CDC-INFO.

For more information

For more information on secondhand smoke, talk to your doctor, nurse, pharmacist, or other healthcare professional.

More information about the Surgeon General's report is available on the Surgeon General's website at

www.surgeongeneral.gov

More facts and advice are available from Centers for Disease Control and Prevention

www.cdc.gov/tobacco

Toll free: **1-800-CDC-INFO** (1-800-232-4636)

In English, en Español

24 hours/day, 7 days/week

Text telephone for hearing impaired: **1-888-232-6348**

Other helpful information is available at www.smokefree.gov.

To access a telephone quitline serving your area, call **1-800-QUIT-NOW** (1-800-784-8669).