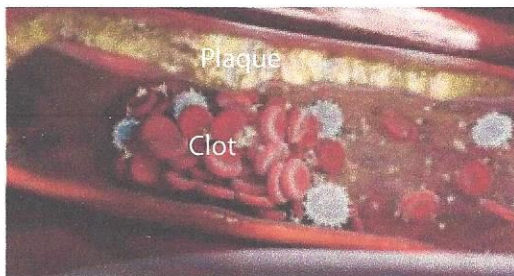


What to Tell Your Patients About Smoking and Chronic Diseases



High Blood Pressure and Heart Disease

Smoking causes dangerous plaque buildup inside your arteries. Plaque clogs and narrows your arteries. Poisons from tobacco smoke also quickly damage blood vessels and make blood more likely to clot. This can block blood flow and lead to heart attack, stroke, or even sudden death.

Quitting smoking will improve your heart health. After just one year your risk for a heart attack drops sharply, and *even if you've already had a heart attack, you cut your risk of having another one by a third to a half if you quit smoking.* Two to five years after you quit, your risk for stroke falls to about the same as a nonsmoker's.



Diabetes

If you have diabetes and smoke, your risk for kidney disease is 2 to 3 times higher than if you don't smoke. Smokers with diabetes also have higher risk for heart disease and eye disease that can cause blindness; nerve damage that causes numbness, pain, weakness, and poor circulation; and amputations. You will also have more difficulty recovering from surgery.

After you quit smoking, you will have better control over your blood sugar levels. When you quit, you will be less likely to have heart or kidney disease, blindness, or amputations.



Cancer

Tobacco smoke contains toxic chemicals that can damage your DNA and lead to cancer. *Nearly one-third of all cancer deaths are directly linked to smoking.* Continuing to smoke weakens the cancer-fighting systems of your body. It can also interfere with your cancer treatment.

Fertility and Pregnancy

Smoking reduces a woman's chance of getting pregnant and damages DNA in sperm. Damage to sperm could decrease fertility and lead to miscarriage or birth defects. Women who smoke during pregnancy have a higher risk for pregnancy complications, delivering their babies early, and stillbirth. Their babies are more likely to have low birth weight or to die from sudden infant death syndrome, or SIDS. Tobacco smoke also damages the tissues of your unborn baby's growing brain and lungs and could interfere with the growth of the placenta, the organ that feeds the baby in the womb. This could lead to miscarriage, premature delivery, or low birth weight.

explains!

Men and women who are planning to have children should not smoke. Pregnant women should avoid exposure to secondhand smoke.

Resources for Quitting

- Call 1-800-QUIT-NOW
- Nicotine replacement or prescription drugs (www.fda.gov/ForConsumers/ConsumerUpdates/ucm198176.htm)
- www.smokefree.gov
- www.women.smokefree.gov

Most people find a combination of resources works best. Many people do not quit on their first attempt. Many smokers need several tries to successfully quit. But the benefits are well worth it. Keep trying.



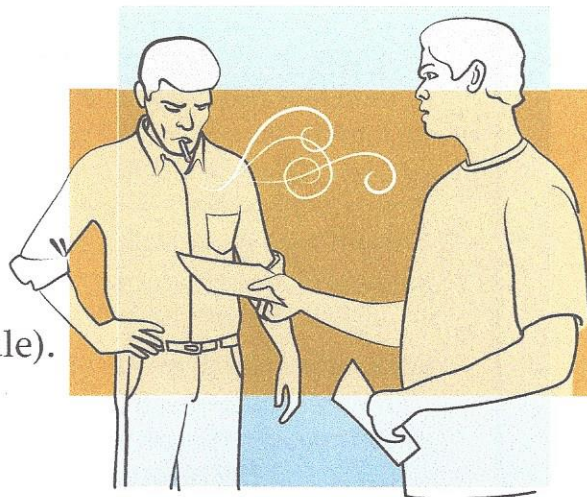


AMERICAN THORACIC SOCIETY

Patient Information Series

What is Second and Third-hand Smoke?

Secondhand smoke is the smoke that comes from the burning end of a cigarette, cigar or pipe. It is also the smoke that smokers breathe out (exhale). Even smoke that is exhaled contains substances that irritate the lining of



your lungs and other tissues, such as your eyes and throat. These substances cause changes that interfere with cells developing normally in your body. These changes in cells increase the risk of some cancers and other health conditions.

What is third-hand smoke?

Third-hand smoke is the invisible tobacco "dust" (or chemical) that settles in the environment and stays there even after a cigarette has been put out. Third-hand smoke contains more than 250 chemicals. We know that children exposed to third-hand smoke are at risk, because they have higher levels of **cotinine** (the by-product of nicotine) in their urine and blood.

These harmful chemicals stay on your clothes, hair, rugs, curtains, toys, and coat every surface in your home and car. Babies and children can be harmed because they breathe or eat the toxins when they crawl on floors, sit on car seats, or cuddle adults, where toxins may have built up over time. Pets are also at risk because the toxins stay on their fur or feathers.

Why is second and third-hand smoke harmful?

Studies show that a person breathing second-hand smoke is exposed to the same tar, nicotine, cyanide, formaldehyde, arsenic, ammonia, methane, carbon monoxide and other cancer-causing chemicals, as the person smoking the cigarette. The smoke from the burning end of a cigarette has *more* toxins than the smoke inhaled by the smoker. Children exposed to second-hand smoke have *increased* hospital admissions for asthma, serious respiratory infections, ear problems, and are at increased risk of sudden infant death syndrome (SIDS) than those not exposed. When infants, children and nonsmoking adults inhale, ingest or touch substances containing third-hand smoke; they may place themselves at increased risk for tobacco-related health problems.

How can I protect my children and myself from second and third-hand smoke?

- If you smoke, avoid smoking around

PHYSICIANS:
**CLIP
AND
COPY**



Ask Dr. Sears...



4 Ways Smoking Increases the Risk of SIDS

*

Focused on babies development! In terms of baby-view, like this perspective!

Suppose you were about to take your baby into a room when you noticed a sign that read: Warning, this room contains poisonous gases of around 4,000 chemicals, some of which have been linked to cancer and lung damage, and are especially harmful to the breathing passages of young infants. "I certainly wouldn't take my baby into there," you conclude. Yet, that's exactly what happens when you take your baby into a room frequented by smokers. "But we always sit in a non-smoking area of public places," you add. This is helpful, but not enough. Having a "Non-smoking area" is like trying to chlorinate half a swimming pool. Pollutants travel through the air. "But I only smoke outside," you rationalize. Also helpful, but not enough. Smoke sticks to clothing and hair. When your baby nestles on your shoulder with his nose on your smoke-contaminated clothing and near your hair your baby's inhales pollutants.

Parents have a right to fume over the poisonous gases that come from a cigarette or cigar burning in their baby's presence. Among the many toxic ingredients in cigarette smoke are the oxygen blocker carbon monoxide; benzene, a potential carcinogen; ammonia; hydrogen cyanide, which is used in making rat poison; formaldehyde; and of course, nicotine. Here are some of the effects.

1. Bothers little breathers. Any poison that deprives the infant of oxygen increases the risk of SIDS. Cigarette and cigar smoke deprive the infant of oxygen, which could interfere with development of the brain center that controls breathing. When the body is chronically deprived of oxygen, it tries to compensate by increasing the production of a chemical that facilitates oxygen transport, called 2,3 DPG. Levels of this substance have been found to be higher in children exposed to smoke, indicating they are trying

to compensate for chronic oxygen deprivation. Cotinine, the main chemical produced when the body breaks down nicotine, has been found in the blood of babies exposed to passive smoke, proof that harmful chemicals enter babies' bodies from cigarette or cigar smoke in the environment. Nicotine, cotinine, thiocyanate, and another nicotine byproduct, have also been found in the blood of breastfeeding infants whose mothers smoke. (Whether these poisons enter the baby via mothers' milk or secondhand smoke is uncertain.) The blood levels of the nicotine byproducts were proportional to the number of cigarettes smoked by the mother.

2. Hurts little hearts. Besides being harmful to growing lungs, smoking may harm growing hearts. Levels of HDL, best known as the "good cholesterol" that may protect from heart disease, was lower in children of smoking parents. In addition, researchers have found high levels of cotinine in the fluid around the hearts of some infants who died of SIDS. Smoke toxins have also been implicated in depressing the automatic regulation of heart rates.

3. Injures little brains. Previously, I mentioned how smoking prenatally may retard the growth of baby's brain. It appears that the brain of a baby of a smoker doesn't fare much better outside the womb. In experiments, nicotine acts as a breathing stimulant to animals that are breathing normally. But as soon as their breathing is compromised, nicotine seems to depress the compensatory breathing control mechanisms in the brain that should return the animal's breathing to normal. It is possible that a smoking mother's infant, whose breathing is already compromised, say, from a cold, could fail to restart breathing because of the effects of nicotine.

4. Blocks little noses. The nasal passages of babies are particularly sensitive to smoke and other irritants and allergens. Also, some babies are obligate nose breathers; meaning they insist on breathing through their nose and, unlike adults, do not switch to mouth breathing if their noses are blocked. Nasal passages that are stuffy and blocked because of smoke could compromise baby's breathing.

The lower respiratory tract is lined with tiny filaments, called "cilia," which wave back and forth to clear mucous from the airway passages and help

Third-Hand Smoke

- Toxins are present long after the person stops smoking. These form layers on every surface where smoking happened.
- In the home or car, these toxins are found in loose dust and on surfaces and they are released into the air over days, weeks and months.
- The clothes of a smoker and opening windows and doors of the home of a smoker can release toxins into the air for long periods of time.
- Children are at greater risk because they may crawl, play on, touch or mouth surfaces with third-hand smoke on them. Children also ingest much more dust than adults do.
- * • Smoking with an exhaust fan on or in another room away from others does not stop them from being exposed to the toxins in tobacco smoke.

Talk with your doctor if you have questions about quitting tobacco use, or call Ohio Quits at 1-800-Quit-Now or 1-800-784-8669.

- **Talk to your doctor or others on your health care team if you have questions. You may request more written information from the Library for Health Information at (614) 293-3707 or email: health-info@osu.edu.**