



Questions About Smoking, Tobacco, and Health

People have many questions about tobacco that can sometimes be hard to answer. There are all sorts of questions about cigarettes, cigars, spit and other types of smokeless tobacco, other tobacco products, nicotine, addiction, or quitting. Many of these questions are answered here.

We also answer some questions about how smoking and tobacco can affect a person's health, including the heart, circulation, and lungs. We also talk about its effect on unborn babies and how it affects the risk of cancer and other diseases.

Is there a safe way to smoke cigarettes?

No. All cigarettes damage the human body. Any smoking is dangerous. Cigarettes are the only legal product whose advertised and intended use -- smoking -- is known to harm the body and cause cancer.

Some people try to make their smoking habit safer by smoking fewer cigarettes, which most smokers find quite hard to do. Sadly, research has found that even smoking as few as 1 to 4 cigarettes a day can lead to serious health outcomes, including an increased risk of heart disease and a greater chance of dying at a younger age.

Some people think that switching from high-tar and high-nicotine cigarettes to those with low tar and nicotine makes smoking safer, but this is not true. When people switch to brands with lower tar and nicotine, they often end up smoking more cigarettes, or more of each cigarette, to get the same nicotine dose as before.

Smokers have been led to believe that "light" cigarettes are a lower health risk and are a good option to quitting. This is not true. Studies have not found that the risk of lung cancer is any lower in smokers of "light" or low-tar cigarettes.

Hand-rolled cigarettes are thought by some people to be a cheaper and healthier way to smoke, but they are not safer than commercial brands. In fact, life-long smokers of hand-rolled cigarettes have been found to have a higher risk of cancers of the larynx (voice

box), esophagus (swallowing tube), mouth, and pharynx (throat) when compared with smokers of machine-made cigarettes.

Some cigarettes are now being sold as "all natural." They are marketed as having no chemicals or additives and rolled with 100% cotton filters. There is no proof they are healthier or safer than other cigarettes, nor is there good reason to think they would be. Smoke from these cigarettes, like the smoke from all cigarettes, contains many agents that cause cancer (carcinogens) and toxins that come from the tobacco itself, including tar and carbon monoxide.

Even though herbal cigarettes do not contain tobacco, they give off tar and carbon monoxide and are dangerous to your health. The bottom line is there's no such thing as a safe smoke.

Are menthol cigarettes safer than those without menthol?

Menthol cigarettes are not safer than any other brand. In fact, they may even be more dangerous. The added menthol produces a cooling sensation in the throat when the smoke is inhaled. It also lessens the cough reflex and covers the dry feeling in the throat that smokers often have. People who smoke menthol cigarettes can inhale deeper and hold the smoke in longer.

About one-fourth (25%) of all cigarettes sold in the United States are flavored with menthol. These cigarettes are most popular among African-American smokers.

Recent studies have shown that people who smoke menthol cigarettes are less likely to try to quit and are less likely to succeed when they do try. At least one researcher proposed that menthol smokers might want to switch to non-menthol cigarettes before they quit to improve their chances of quitting smoking.

Is cigarette smoking really addictive?

Yes. The nicotine in cigarette smoke can cause addiction. Nicotine is an addictive drug just like heroin and cocaine:

- When taken in small amounts, nicotine creates pleasant feelings that make the smoker want to smoke more. It acts on the chemistry of the brain and central nervous system, affecting the smoker's mood. Nicotine works very much like other addicting drugs, by flooding the brain's reward circuits with dopamine (a chemical messenger). Nicotine also gives you a little bit of an adrenaline rush -- not enough to notice, but enough to speed up your heart and raise your blood pressure.
- Nicotine reaches the brain within seconds after taking a puff, but its effects start to wear off within a few minutes. This is what most often leads the smoker to get another cigarette. If the smoker doesn't smoke again soon, withdrawal symptoms kick in and get worse over time.

- The typical smoker takes about 10 puffs from each cigarette. A person smoking a pack per day gets about 200 "hits" of nicotine each day.
- Smokers usually become dependent on nicotine and suffer physical and emotional (mental or psychological) withdrawal symptoms when they stop smoking. These symptoms include irritability, nervousness, headaches, and trouble sleeping. The true marker for addiction, though, is that people still smoke even though they know smoking is bad for them -- affecting their lives, their health, and their families in unhealthy ways. Most people who smoke want to quit.

Researchers are also looking to see if there are other chemicals in tobacco that help promote addiction. In the brains of animals, tobacco smoke causes chemical changes that are not fully explained by the effects of nicotine.

What does nicotine do?

In large doses nicotine is a poison and can kill by stopping the muscles a person uses to breathe. But smokers usually take in small amounts that the body can quickly break down and get rid of. The first dose of nicotine makes a person to feel awake and alert, while later doses make them feel calm and relaxed.

Nicotine can make new smokers, and regular smokers who get too much of it, feel dizzy or sick to their stomachs. The resting heart rate for young smokers increases 2 to 3 beats per minute. Nicotine also lowers skin temperature and reduces blood flow in the legs and feet. It may play a role in increasing smokers' risk of heart disease and stroke, but other substances in cigarette smoke likely play a bigger part.

Many people mistakenly think that nicotine is the substance in tobacco that causes cancer. This belief may cause some people to avoid using nicotine replacement therapy when trying to quit. Nicotine is what gets (and keeps) people addicted to tobacco, but other substances in tobacco cause cancer. Some animal studies have shown that nicotine may help existing tumors grow and spread, but whether this happens in people is not yet known and more research is needed.

Why do people start smoking?

Most people begin smoking as teens. Those with friends and/or parents who smoke are more likely to start smoking than those who don't. Some teens say that they "just wanted to try it," or they thought it was "cool" to smoke.

The tobacco industry's ads, price breaks, and other promotions for its products are a big influence in our society. The tobacco industry spends billions of dollars each year to create and market ads that show smoking as exciting, glamorous, and safe.

Despite the fact that cigarette brand product placement in movies was banned by the 1998 Tobacco Master Settlement Agreement, cigarettes appear in 3 out of 4 box office hit movies. More than one-third of the movies that show cigarettes are youth-rated films.

And studies show that young people who see smoking in movies are more likely to start smoking.

TV ads for smoking have been banned for many years, but films that show tobacco brands are much more likely to include smoking scenes as part of their TV trailers. This seems to undercut the intent of the TV ad ban.

Who is most likely to become addicted?

Anyone who starts smoking can become addicted to nicotine. Studies show that cigarette smoking is most likely to become a habit during the teen years. The younger a person is when he or she begins to smoke, the more likely he or she is to become addicted to nicotine. Almost 90% of adult smokers first smoked at or before age 19.

How many people smoke cigarettes?

Cigarette smoking has decreased among adults in the United States from about 42% of the population in 1965 to about 21% in 2009 (the latest year for which numbers are available). It is estimated that about 46 million adults currently smoke cigarettes. About 24% of men and 18% of women were smokers in 2009. Education is linked to smoking rates, with lower smoking rates in groups with higher levels of education.

Is smoking common among young people?

Yes. Tobacco use, including smoking cigarettes, using chew or spit tobacco, and dipping snuff, is common among American youth, according to the most recent government surveys.

Despite declines in recent years, in 2009 nearly 1 in 3 male high school students (30%) and more than 1 in 5 female high school students (22%) used some type of tobacco in the month before they were surveyed. About 1 in 5 students (20%) were considered current cigarette smokers. More than half of these students (51%) reported they had tried to quit smoking during the past year. Cigar smoking was also common among high school students (about 14%).

Also, about 7% of middle school girls and 10% of middle school boys used some form of tobacco, with cigarettes (about 5%) being the most common.

In both middle school and high school, tobacco use was higher among male students for all products

Other problems have been linked to smoking. Studies have shown that students who smoke are also more likely to use other drugs, get in fights, carry weapons, try to kill themselves, and take part in risky sex.

What in cigarette smoke is harmful?

Cigarette smoke is a complex mixture of chemicals produced by the burning of tobacco and its additives. The smoke contains tar, which is made up of more than 4,000 chemicals, including over 60 known to cause cancer. Some of these substances cause heart and lung diseases, and all of them can be deadly. You might be surprised to know some of the chemicals found in cigarette smoke include:

- Cyanide
- Benzene
- Formaldehyde
- Methanol (wood alcohol)
- Acetylene (the fuel used in welding torches)
- Ammonia

Cigarette smoke also contains the poison gases carbon monoxide and nitrogen oxide. The ingredient that produces the effect people are looking for is nicotine, an addictive drug.

The tobacco leaves used in making cigarettes contain radioactive materials; the amount depends on the soil the plants were grown in and fertilizers used. But this means that cigarette smoke contains small amounts of radioactive material too, which smokers take into their lungs as they inhale. These radioactive particles build up in the lungs, and over time can mean a big dose of radiation. This may be another key factor in smokers getting lung cancer.

Does smoking cause cancer?

Yes. Tobacco use accounts for at least 30% of all cancer deaths in the United States. Smoking causes about 87% of lung cancer deaths. Smoking also causes cancers of the larynx (voice box), mouth, pharynx (throat), esophagus (swallowing tube), and bladder. It also has been linked to the development of cancers of the pancreas, cervix, kidney, and stomach and some types of leukemia. Cigars, pipes, and spit and other types of smokeless tobacco all cause cancers, too. There is no safe way to use tobacco.

How does cigarette smoke affect the lungs?

Damage to the lungs begins early in smokers, and cigarette smokers have a lower level of lung function than non-smokers of the same age. Lung function continues to worsen as long as the person smokes, but it may take years for the problem to become noticeable enough for lung disease to be diagnosed. Cigarette smoking causes many lung diseases that can be nearly as bad as lung cancer.

Chronic obstructive pulmonary disease

More than 12 million people in the United States suffer from chronic obstructive pulmonary disease (COPD), a name for long-term lung disease which includes both chronic bronchitis and emphysema. COPD is the fourth leading cause of death in America. More women die from COPD than men. Smoking is the main risk factor for COPD. More than 75% of COPD deaths are caused by smoking.

Over time, COPD can make it hard to breathe, limit activity, and cause serious health problems. The late stage of chronic lung disease is one of the most miserable of all medical problems. It makes people feel as if they are gasping for breath all the time. They feel as if they are drowning.

Chronic bronchitis

Chronic bronchitis is a disease where the airways make too much mucus, forcing the smoker to cough it out. It is a common problem for smokers. The airways become inflamed (swollen) and the cough becomes chronic. It doesn't get better or go away. Airways get blocked by scars and mucus. This can lead to bad lung infections.

Emphysema

Cigarette smoking is also the major cause of emphysema, a disease that slowly destroys a person's ability to breathe. Oxygen gets into the blood by moving across a large surface area in the lungs. Normally, thousands of tiny sacs make up this surface. In emphysema, the walls between the sacs break down and create larger but fewer sacs. This decreases the lung surface area, which lowers the amount of oxygen reaching the blood. Over time, the lung surface area can become so small that a person with emphysema must gasp for breath.

Shortness of breath (especially when lying down), a mild cough that doesn't go away (which is often dismissed as "smoker's cough"), feeling tired, and sometimes weight loss are signs that emphysema is getting worse. People with emphysema are at risk for many other problems linked to weak lung function, including pneumonia. In later stages of the disease, patients can only breathe comfortably with the help of an oxygen tube under the nose. Emphysema cannot be cured or reversed, but it can be slowed down, especially if the person stops smoking.

Why do smokers have "smoker's cough?"

Cigarette smoke has chemicals and particles that irritate the airways and lungs. When a smoker inhales these substances, the body tries to protect itself by making mucus and coughing. The early morning smoker's cough happens for many reasons. Normally, tiny hair-like formations (called cilia) beat outward and sweep harmful material out of the lungs. But cigarette smoke slows the sweeping action, so some of the poisons in the smoke stay in the lungs and mucus stays in the airways. While a smoker sleeps, some cilia recover and begin working again. After waking up, the smoker coughs because the

lungs are trying to clear away the irritants and mucus that built up from the day before. The cilia will completely stop working after they have been exposed to smoke for a long time. Then the smoker's lungs are even more exposed and prone to infection and irritation.

If you smoke but don't inhale, is there any danger?

Yes. Wherever smoke touches living cells, it does harm. Even if smokers don't inhale, they are breathing secondhand smoke and are still at risk for lung cancer. Pipe and cigar smokers, who often don't inhale, are at an increased risk for lip, mouth, tongue, and some other cancers, too.

Does cigarette smoking affect your heart?

Yes. Smoking cigarettes increases the risk of heart disease, which is the number one cause of death in the United States. Smoking, high blood pressure, high cholesterol, physical inactivity, obesity, and diabetes are all risk factors for heart disease. But the biggest risk factor for sudden death from a heart attack is cigarette smoking. A smoker who has a heart attack is more likely to die within an hour of the heart attack than a non-smoker. Cigarette smoke can harm the heart at very low levels, even when the amount is too low to cause lung disease.

How does smoking affect pregnant women and their babies?

Pregnant women who smoke risk the health and lives of their unborn babies, and most women try to stop smoking when they find out they're pregnant. Smoking during pregnancy is linked with a greater chance of miscarriage, premature delivery, stillbirth, infant death, low birth-weight, and sudden infant death syndrome (SIDS). Up to 5% of infant deaths could be prevented if pregnant women did not smoke.

When a pregnant woman smokes, she's smoking for 2. The nicotine, carbon monoxide, and other harmful chemicals enter her bloodstream, go into the baby's body, and keep it from getting vital nutrients and oxygen it needs for growth.

Breast-feeding is a good way to feed a new baby, but if the mother smokes the baby is exposed to nicotine and other substances in the smoke through breast milk. Nicotine can cause unwanted symptoms in the baby, such as restlessness, a rapid heartbeat, vomiting, shorter sleep times, or diarrhea. It is better not to smoke while breast feeding. But women who can't quit right away can make their homes smoke-free, smoke after breast-feeding rather than before, and cut back on their smoking as much as possible. Breast feeding may be healthier for the baby than the bottle, even when the mother smokes.

Some research has also suggested that children whose mothers smoked while pregnant or who have been exposed to secondhand smoke, even in small amounts, may be slower learners in school. They may be shorter and smaller than children of non-smokers. They are also more likely to smoke when they get older.

What are some of the short- and long-term effects of smoking cigarettes?

Smoking causes many types of cancer. But cancers account for only about half of the deaths linked to smoking. Long-term, smoking is also a major cause of heart disease, aneurysms, bronchitis, emphysema, and stroke. It also makes pneumonia and asthma worse. Smoking is linked to about half of the gum disease in the United States, which means more tooth loss and mouth surgery. Wounds take longer to heal and the immune system may not work as well in smokers as in non-smokers.

Smoking also damages the arteries. This is why many vascular surgeons refuse to operate on patients with peripheral artery disease (poor blood circulation in the arms and legs) unless they stop smoking. And male smokers have a higher risk of sexual impotence (erectile dysfunction) the longer they smoke

The truth is that cigarette smokers die younger than non-smokers. In fact, according to a study done in the late 1990s by the Centers for Disease Control and Prevention (CDC), smoking shortened male smokers' lives by 13.2 years and female smokers' lives by 14.5 years. Men and women who smoke are much more likely to die during middle age (between the ages of 35 and 69) than those who have never smoked.

Smoking also causes many short-term effects, such as poor lung function. This is why smokers often suffer shortness of breath and nagging coughs. They often will tire quickly during physical activity. Some other common short-term effects include less ability to smell and taste, premature aging of the skin, bad breath, and stained teeth

What are the chances that smoking will kill you?

About half of the people who keep smoking will die because of it. In the United States, tobacco causes nearly 1 in 5 deaths, killing about 443,000 Americans each year. Smoking is the single most preventable cause of death in our society.

Based on current patterns, smoking will kill about 650 million people alive in the world today. If these patterns continue, tobacco-caused deaths worldwide are expected to increase from about 5.4 million per year today to more than 8 million per year by the 2030s. Most of these deaths will happen in developing countries.

What are the dangers of environmental (secondhand) tobacco smoke?

Environmental tobacco smoke (ETS) is also known as secondhand smoke. Passive smoking (inhaling secondhand smoke) happens when non-smokers breathe other people's tobacco smoke. This includes *mainstream smoke* (smoke that is inhaled and then exhaled into the air by smokers) and *sidestream smoke* (smoke that comes directly from the burning tobacco in cigarettes). ETS contains the same harmful chemicals as the smoke that smokers inhale.

There is strong evidence that ETS causes serious damage to human health. Each year about 3,400 non-smoking adults die of lung cancer and about 46,000 die of heart disease as a result of breathing secondhand smoke. It can also affect non-smokers by causing asthma and other respiratory problems, eye irritation, headaches, nausea, and dizziness.

Children whose parents smoke are more likely to suffer from asthma, pneumonia, bronchitis, ear infections, coughing, wheezing, and increased mucus production. Babies of parents who smoke have a greater chance of dying of sudden infant death syndrome (SIDS). Pregnant women exposed to ETS are at risk for having a low birth weight baby and may also be at risk for pre-term (premature) delivery and miscarriage.

Can secondhand smoke cause breast cancer?

Research is still being done to find out whether secondhand smoke may increase the risk of breast cancer. Both mainstream and secondhand smoke have about 20 chemicals that, in high concentrations, cause breast cancer in rodents. Chemicals in tobacco smoke reach breast tissue and are found in breast milk.

Any link between secondhand smoke and breast cancer risk in human studies is a subject of debate, partly because breast cancer risk has not been shown to be increased in active smokers. One possible reason for this is that tobacco smoke may have different effects on breast cancer risk in smokers and in those who are exposed to secondhand smoke.

A report from the California Environmental Protection Agency (Cal/EPA) in 2005 concluded that the evidence about secondhand smoke and breast cancer is "consistent with a causal association" in younger women. This means that the secondhand smoke acts as if it could be a cause of breast cancer in these women. The 2006 US Surgeon General's report, *The Health Consequences of Involuntary Exposure to Tobacco Smoke*, concluded that there is "suggestive but not sufficient" evidence of a link at this point. In 2007, the Cal/EPA did another review and concluded that "regular ETS exposure is causally related to breast cancer diagnosed in younger, primarily pre-menopausal women" and that this link is not likely explained by any other causes. Researchers are still looking at this, but in any case, women may want to know that this possible link to breast cancer is yet another reason to avoid secondhand smoke.

Am I at risk for getting lung cancer from smoke odors on clothing or from being in a room that still smells of tobacco smoke?

There are no medical research reports on the cancer-causing effects of cigarette odors, but research does show that secondhand smoke can seep into hair, clothing, and other surfaces. Some researchers call this "thirdhand" smoke. This refers to particles that are left on environmental surfaces after you can no longer see the smoke. These particles can become airborne again when disturbed, or they can be picked up by people (especially babies and small children) who touch the surfaces and get particles on their hands and bodies. Though unknown, the cancer-causing effects would likely be very small compared with direct secondhand smoke exposure, such as living in a household that has a smoker. But this is an active area of tobacco research.

For more information, see our document called *Secondhand Smoke*.

What is being done to protect people from the hazards of smoking?

Tobacco labels

Both the public and private sectors have acted to help decrease smoking-related deaths and illnesses in this country. Since 1966, the US Surgeon General's health warnings have been required on all cigarette packages and, since 1987, on all spit or oral tobacco products. Since 2001, the 7 major cigar manufacturers in the United States have provided 5 health warnings that rotate on cigar labels. These labels are much like those on cigarette packages.

Advertising

Congress banned cigarette advertising on TV and radio in 1971 and spit tobacco advertising in 1987. The American Legacy Foundation and many states have made anti-smoking public service messages that are featured on television, radio, and billboards. Some tobacco companies have come up with their own ads, which appear to be anti-smoking but seem to actually promote a more favorable attitude toward the tobacco industry.

New laws will affect tobacco marketing

The Family Smoking Prevention and Tobacco Control Act went into effect in October 2009. This law gives the Food and Drug Administration (FDA) power to regulate tobacco products in the United States. One of the goals of the law is to restrict the marketing and advertising of tobacco products. Colorful ads and store displays will no longer be

permitted. Only black and white text ads will be allowed. And starting in 2010, it became illegal to place outdoor tobacco ads within 1,000 feet of schools and playgrounds.

Taxes

Taxes on cigarettes have risen in many states in recent years. They have been shown to discourage young people from starting to smoke and to encourage smokers to quit. As of late 2010, the federal cigarette tax is \$1.01 per pack. State taxes on tobacco vary from as low as 17 cents (in Missouri) to up to \$4.35 a pack (in New York).

Smoking bans

Laws in all 50 states and the District of Columbia restrict or do not allow smoking in certain public places. These laws range from simple restrictions, such as designated areas in government buildings, to laws that ban smoking in all public places and workplaces. Federal buildings controlled by the executive branch, including the White House, are smoke-free. Congressional offices and courthouses are not required to be smoke-free by this federal ban, but many are smoke-free for other reasons. A number of other federal agencies also require smoke-free buildings. Smoking is also banned on all domestic airplane flights.

According to the US Surgeon General, smoke-free policies that ban smoking in all indoor areas are the only way to be sure that people are not exposed to secondhand smoke in workplaces and other public places.

Are spit tobacco and snuff safe alternatives to cigarette smoking?

Many terms are used to describe tobacco that is put in the mouth, such as spit, oral, smokeless, chewing, and snuff tobacco. Using any kind of spit or smokeless tobacco is a major health risk. It is less lethal than smoking cigarettes, but less lethal is a far cry from safe.

The amount of nicotine absorbed is usually more than the amount delivered by a cigarette. Overall, people who dip or chew get about the same amount of nicotine as regular smokers. The most harmful cancer-causing substances in spit tobacco are tobacco-specific nitrosamines which have been found at levels 100 times higher than the nitrosamines that are allowed in bacon, beer, and other foods. These carcinogens cause lung cancer in lab animals, even when injected rather than inhaled.

The juice from the smokeless tobacco is absorbed directly through the lining of the mouth. This causes sores and white patches (called *leukoplakia*) that often lead to cancer of the mouth.

People who use spit and other types of smokeless tobacco greatly increase their risk of other cancers including those of the mouth, throat (pharynx), esophagus (the swallowing

tube that connects the mouth and the stomach), stomach, and pancreas. Other effects of using spit tobacco include chronic bad breath, stained teeth and fillings, gum disease, tooth decay, tooth loss, tooth abrasion, and loss of bone in the jaw. Users may also have problems with high blood pressure and may be at increased risk for heart disease.

To learn more, please read *Smokeless Tobacco*.

What is snus? Is it safe?

Snus (sounds like "snoose") is a type of moist snuff first used in Sweden. It is often flavored with spices or fruit, and is usually packaged in thin bags much like tea bags. It is also sold loose, as a moist powder. Like snuff and other spit tobaccos, snus is held between the gum and mouth tissues where the juice is absorbed into the body.

Because it is heated during processing, Swedish snus has fewer tobacco-specific nitrosamines that are known to cause cancer. (See the previous section, "Are spit tobacco and snuff safe alternatives to cigarette smoking?") Snus users in Sweden have lower rates of some types of cancer than Swedish smokers. Because of this, some people believe snus is "safe." But snus users have a higher risk of cancer of the pancreas than non-users. They also get sores or spots in the mouth (lesions) where the snus is held. It appears that snus users may have mouth cancer more often than non-users, though more studies need to be done to confirm this.

Since US tobacco sellers are not required to list what is in their products, it would be hard to know how the US versions of snus might compare to the Swedish versions without doing studies here. Since snus is still new in the United States, it is uncertain what other problems it might cause. Still, snus is not a safe alternative to smoking.

What are the health risks of smoking pipes or cigars?

Many people view cigar smoking as more civilized and sophisticated, as well as less dangerous than cigarette smoking. Yet one large cigar can contain as much tobacco as an entire pack of cigarettes.

Most of the same cancer-causing substances found in cigarettes are found in cigars. And most cigars have as much nicotine as several cigarettes. When cigar smokers inhale, nicotine is absorbed as quickly as it is with cigarettes. For those who do not inhale, it is absorbed more slowly through the lining of the mouth. Either way, nicotine can cause addiction.

Smoking cigars causes cancers of the lung, lip, tongue, mouth, throat (oral cavity), voice box (larynx), esophagus (swallowing tube), and probably cancers of the bladder and pancreas. Cigar smokers have a greater risk of dying from cancer of the mouth, larynx, or esophagus than non-smokers. The risk of death from lung cancer is not as high as it is for cigarette smokers, but is still many times higher than the risk for non-smokers.

Cigar smokers who inhale deeply and smoke several cigars a day are also at increased risk for heart disease and chronic lung disease.

Pipe smokers have an increased risk of dying from cancers of the lung, throat, esophagus, larynx, pancreas, and colon and rectum. They also have an increased risk of dying of heart disease, stroke, and chronic lung disease. The level of these risks seems to be about the same as that for cigar smokers.

Smoking cigars or pipes is not a safe alternative to smoking cigarettes.

To learn more, please see our document called *Cigar Smoking*.

What about more exotic forms of smoking tobacco, such as clove cigarettes, bidis, and hookahs?

Many forms of flavored tobacco have become popular in recent years, especially among younger people. Clove cigarettes (called *kreteks*), bidis, and hookahs often appeal to those who want something a little different. They also give young people another way to experiment with tobacco. The false image of these products as clean, natural, and safer than regular cigarettes seems to attract some young people who may otherwise not start smoking. But these products carry many of the same risks of cigarettes and other tobacco products, and each has its own additional problems linked to it.

As of October 2009, new federal laws have banned flavored cigarettes. It is not illegal to have or smoke them, but it is illegal to sell them in the United States. Tobacco companies are already working around this by making flavored small cigars as a replacement product.

Clove cigarettes

Clove cigarettes, also called *kreteks*, are imported mainly from Indonesia. They contain 60% to 70% tobacco and 30% to 40% ground cloves, clove oil, and other additives. The chemicals in cloves have been linked to asthma and other lung diseases.

Users often have the mistaken notion that smoking clove cigarettes are safe alternatives to standard cigarettes. But this is a tobacco product with the same health risks as cigarettes. In fact, kreteks have been shown to deliver more nicotine, carbon monoxide, and tar than regular cigarettes.

Bidis

Bidis or "beedies" are flavored cigarettes imported mainly from India. They are hand-rolled in an unprocessed tobacco leaf and tied with colorful strings on the ends. Their popularity has grown in recent years in part because they come in many candy-like

flavors (strawberry, vanilla, licorice, and grape), and because they tend to cost less than regular cigarettes. They often give the smoker a quick buzz.

Even though bidis contain less tobacco than regular cigarettes, they deliver higher levels of nicotine (the addictive substance in tobacco) and other harmful substances, such as tar, ammonia, and carbon monoxide. Because they are thinner than regular cigarettes, they require about 3 times as many puffs per cigarette. They are also unfiltered.

Bidis seem to have all of the same health risks of regular cigarettes, if not more. Bidi smokers have much higher risks of heart attacks, chronic bronchitis, and some cancers than non-smokers.

Hookah (water pipes)

Hookah (or narghile) smoking started in the Middle East. Users burn flavored tobacco (called *shisha*) in a water pipe and inhale the smoke through a long hose. It has recently become popular among young people, especially around college campuses. Hookah smoking is usually a social event that allows the smokers to spend time together and talk as they pass the pipe around. It is thought of as a safer alternative to cigarettes because the percentage of tobacco in the product smoked is low and people think the water filters out the toxins. This is false. The water does not filter out many of the toxins. In fact, hookah smoke contains more toxins such as nicotine, carbon monoxide, tar, and other hazardous substances, than cigarette smoke. Several types of cancer have been linked to hookah smoking. Hookah use is also linked to other unique risks not linked with cigarette smoking. For example, infectious diseases can be spread by sharing the pipe or through the way the tobacco is prepared.

All forms of tobacco are dangerous. Even if the health risks were smaller for some tobacco products as opposed to others, all tobacco products contain nicotine, which can lead to increased use and addiction. Do not think tobacco is safe in any amount or form.

What can I do to help with any damage that may have been caused by smoking?

If you have used tobacco in any form, now or in the past, tell your health care provider so he or she can be sure that you get the right preventive health care. It is well known that tobacco use puts you at risk for certain health-related illnesses. This means part of your health care should focus on related screening and preventive measures to help you stay as healthy as possible. For example, you will want to be sure that you regularly check the inside of your mouth for any changes, and have an oral exam by your doctor or dentist if you find any changes or problems. The American Cancer Society recommends that regular check-ups include mouth (oral cavity) exams. By doing this, tobacco users may be able to find oral changes and leukoplakia (white patches on the mouth membranes) early. This may help prevent oral cancer.

You should also be aware of any of the following:

- Any change in a cough (for example, you cough up more mucus than usual)
- A new cough
- Coughing up blood
- Hoarseness
- Trouble breathing
- Less tolerance for exercise (getting out of breath easily when active)
- Wheezing
- Headaches
- Chest pain
- Loss of appetite
- Weight loss
- General fatigue (feeling tired all the time)
- Frequent or repeated respiratory infections

Any of these could be signs of lung cancer or a number of other lung conditions and you should see a doctor right away. Although these can be signs of a problem, many people do not notice symptoms of lung cancers until they are advanced and the cancer has spread to other parts of the body.

Remember that tobacco users have a higher risk for other cancers too, depending on the way they use tobacco. You can learn more about the types of cancer you may be at risk for by reading our document that discusses the type of tobacco you use (for example, *Cigar Smoking*). Other risk factors for these cancers may be more important than your use of tobacco, but you should know the additional risks that might apply to you.

If you are concerned about your health because of your tobacco use, see your health care provider as soon as possible. Taking care of yourself and getting treatment for early problems will give you the best chance for treatment success. The best way, though, to take care of yourself and decrease your risk for life-threatening lung problems is to quit using tobacco.

How does tobacco use affect the economy?

The tobacco industry is one of the most profitable businesses in the country, making billions of dollars every year. But the costs of smoking are far higher than the income from cigarette sales.

- Smoking causes more than \$196 billion each year in health-related costs, including the cost of lost productivity caused by deaths from smoking.

- Smoking-related medical costs averaged more than \$100 billion each year between 2000 and 2004. This translates to \$2,247 in extra medical expenses for each adult smoker per year as of 2004.
- Death-related productivity losses from smoking among workers cost the US economy almost \$97 billion yearly (average for 2000-2004).
- For each pack of cigarettes sold or given away in 2004, \$5.50 was spent on medical care caused by smoking, and \$5.32 lost in productivity, for a total cost of \$10.82 per pack.

Can quitting really help a lifelong smoker?

Yes. It is never too late to quit using tobacco. The sooner smokers quit, the more they can reduce their chances of getting cancer and other diseases. Within minutes of smoking the last cigarette, the body begins to restore itself.

20 minutes after quitting

Your heart rate and blood pressure drop.

(Effect of smoking on arterial stiffness and pulse pressure amplification, Mahmud A, Feely J. 2003. *Hypertension*:41:183)

12 hours after quitting

The carbon monoxide level in your blood drops to normal.

(*US Surgeon General's Report*, 1988, p. 202)

2 weeks to 3 months after quitting

Your circulation improves and your lung function increases.

(*US Surgeon General's Report*, 1990, pp.193, 194,196, 285, 323)

1 to 9 months after quitting

Coughing and shortness of breath decrease; cilia (tiny hair-like structures that move mucus out of the lungs) start to regain normal function in the lungs, increasing the ability to handle mucus, clean the lungs, and reduce the risk of infection.

(*US Surgeon General's Report*, 1990, pp. 285-287, 304)

1 year after quitting

The excess risk of coronary heart disease is half that of a continuing smoker's.

(*US Surgeon General's Report*, 2010, p. 359)

5 years after quitting

Risk of cancer of the mouth, throat, esophagus, and bladder are cut in half. Cervical cancer risk falls to that of a non-smoker. Stroke risk can fall to that of a non-smoker after 2-5 years.

(A Report of the Surgeon General: How Tobacco Smoke Causes Disease - The Biology and Behavioral Basis for Smoking-Attributable Disease Fact Sheet, 2010; Tobacco Control: Reversal of Risk After Quitting Smoking. IARC Handbooks of Cancer Prevention, Vol. 11. 2007, p 341)

10 years after quitting

The risk of dying from lung cancer is about half that of a person who is still smoking. The risk of cancer of the larynx and pancreas decreases.

(A Report of the Surgeon General: How Tobacco Smoke Causes Disease - The Biology and Behavioral Basis for Smoking-Attributable Disease Fact Sheet, 2010; and US Surgeon General's Report, 1990, pp. vi, 155, 165)

15 years after quitting

The risk of coronary heart disease is that of a non-smoker's.

(Tobacco Control: Reversal of Risk After Quitting Smoking. IARC Handbooks of Cancer Prevention, Vol. 11. 2007. p 11)

These are just a few of the benefits of quitting smoking for good. Quitting smoking lowers the risk of diabetes, lets blood vessels work better, and helps the heart and lungs. Quitting while you are younger will reduce your health risks more, but quitting at any age can give back years of life that would be lost by continuing to smoke.

Are there some benefits of quitting that I'll notice right away?

Kicking the tobacco habit offers some rewards that you'll notice right away and some that will show up more slowly over time. These benefits can improve your day-to-day life a lot.

- Food will taste better.
- Your sense of smell returns to normal.
- Your breath, hair, and clothes smell better.
- Your teeth and fingernails stop yellowing.
- Ordinary activities leave you less out of breath (for example, climbing a flight of stairs or doing light housework).

Quitting also helps stop the damaging effects of tobacco on how you look, including premature wrinkling of your skin and gum disease.

Suppose I smoke for a while and then quit?

Smoking begins to cause damage right away and is highly addictive. Studies have found nicotine to be as addictive as heroin, cocaine, or alcohol. It's the most common form of drug addiction in the United States. It's much better to never start smoking cigarettes -- and become addicted to nicotine -- than it is to smoke with the plan to quit later. Like alcohol, heroin, and cocaine, nicotine creates a tolerance in the body and promotes psychological dependence. This makes it much harder to quit, but with the right support it can be done.

When an ex-smoker smokes a cigarette, even years after quitting, the body reacts the same way it did when the person was smoking, which can cause the person to want to smoke again. Don't think you can smoke for a short while and quit when you want to; it's seldom that easy.

How do people quit smoking?

Quitting smoking is not easy, and some people try many times before they are able to quit for good. There are many ways to quit smoking. For example, some are able to stop "cold turkey," by taking part in the Great American Smokeout[®], or by using other methods.

No matter what methods they use, they need more than one approach. They must deal with the physical symptoms caused by withdrawal from nicotine, which usually only last a few days to a couple of weeks. They also need to deal with the emotional, psychological, and mental dependence. People who quit for good find ways to deal with pressure, stress, and emotional pain without smoking. The mental/psychological craving can cause relapse even years later -- that is how addictive nicotine is.

There's no single best way to quit. Quitting for good may mean using many methods, including step-by-step manuals, self-help groups, counseling, toll-free telephone-based counseling programs, online support, and/or using nicotine replacement therapies or other medicines (see the next questions). Smokers may also need to make changes in their daily routine to help them break their smoking habits. Some may find long-term support such as Nicotine Anonymous helpful. To improve your chances of success, try to use 2 or more of these methods to help you quit.

What are nicotine replacement therapies?

Nicotine replacement therapies (NRTs) are medicines that help decrease or stop a smoker's withdrawal symptoms by giving controlled doses of nicotine without the other harmful chemicals of cigarette smoke. NRTs are sold as patches, gums, inhalers, nasal sprays, or lozenges. The Food and Drug Administration (FDA) has approved all of these products to help people quit smoking. You can buy patches, gums, and lozenges over the counter, but you need a prescription for inhalers and nasal sprays.

These products work by helping smokers manage their physical responses as they quit. For best results, smokers should use NRTs along with behavioral change programs that are designed to help smokers break their psychological (mental) dependence on cigarettes. For more information on such programs, call the American Cancer Society at 1-800-227-2345.

Not everyone can use nicotine replacement therapy. People with certain medical conditions and pregnant women should use it only with a doctor's supervision. It is always a good idea to get your doctor's input and support when you decide to quit smoking.

The best time to start NRT is when you begin to try to quit. Many smokers ask if it is possible to start using nicotine replacement while they are still smoking. There is some research on smokers using NRT while still smoking, but the results are still not clear enough to say for certain if this might pose a danger to your health. The most important thing is to make sure that you are not overdosing on nicotine, which can affect your heart and blood circulation. It is safest to be under a doctor's care if you wish to try smoking and using NRT while you are tapering off cigarette smoking.

For more information, see our *Guide to Quitting Smoking*.

Are there other medicines or vaccines to help smokers quit?

Yes. Some medicines that don't have nicotine have already been approved to help quit smoking.

Bupropion (Wellbutrin[®]) was first used as an anti-depressant, and later approved by the FDA to help people quit smoking (under the brand name Zyban[®]). This medicine does not contain nicotine and you need a prescription for it. It affects chemicals in the brain that are related to nicotine craving. It can be used alone or together with nicotine replacement. Unlike nicotine replacement, you start taking it 1 or 2 weeks before you stop smoking.

Newer medicines may help smokers (or former smokers) by stopping them from getting physical pleasure from smoking. The medicines seem to work by stopping nicotine from stimulating the brain, either by blocking the brain receptors that nicotine normally attaches to, or by keeping nicotine from reaching the brain altogether (as in the case of the vaccines).

One such medicine, varenicline (Chantix[®]), is FDA-approved for help with quitting. Varenicline is a pill taken twice a day, starting at least a week before your quit date. Once in the body, it attaches to nicotine receptors in the brain, reducing the pleasurable effects of smoking and helping to reduce nicotine withdrawal symptoms. Many studies have shown varenicline can more than double the chances of quitting smoking. Since varenicline is a newer drug, research has not been done yet to find out if it is safe to use along with nicotine replacement products. But the company that makes varenicline noted

that people who used the drug along with NRT had more side effects such as nausea and headaches.

For people who have not been able to quit smoking using NRT, bupropion, or varenicline, or who can't use these drugs, some doctors prescribe older medicines that have been approved by the FDA for uses other than quitting smoking. For instance, nortriptyline is a drug used to treat depression and clonidine is used to treat high blood pressure. Both of these drugs have restrictions on who can safely use them. And people taking them need medical monitoring because of rare but serious side effects. But studies have shown that they can make it easier for some people to quit smoking, even though they have not been approved by the FDA for that purpose.

Other medicines still being studied include naltrexone, which also comes as a pill. It is being used along with other medicines such as bupropion and NRT to see if it can reduce cravings. Also still being tested are anti-smoking vaccines that are given as a series of shots. Tests of these new treatments have been promising. So far, they seem to be safe, and may help some smokers quit or stay quit. But larger studies are needed to show these treatments are effective before the FDA can approve them for use. Large studies of these treatments are now under way. If they are shown to work, one or more of these methods could be approved within the next few years.

It is not likely that any one of these drugs will work in every person. That is why using different quitting aids at the same time is still the best way to increase your chances of success. For more information on quitting and medicines that can be used, see our *Guide to Quitting Smoking*.

Where can I go for help?

It is hard to stop smoking, but you can do it! An estimated 48 million Americans have quit smoking for good, and now there are more former smokers than current smokers in the US. Many organizations offer information, counseling, and other services on how to quit, as well as information on where to go for help. Other good resources for finding help include your doctor, dentist, local hospital, or employer.

If you want to quit smoking and need help, contact one of the following organizations:

American Cancer Society

Toll-free number: 1-800-227-2345

Web site: www.cancer.org

Centers for Disease Control and Prevention

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

Toll-free smoking cessation/tobacco line: 1-800-QUIT-NOW (1-800-784-8669)

Tobacco information: www.cdc.gov/tobacco/quit_smoking/index.htm

Quitting help: www.cdc.gov/tobacco/quit_smoking/how_to_quit/index.htm

National Cancer Institute

Toll-free number: 1-800-4-CANCER (1-800-422-6237) for cancer information

Toll-free smoking cessation/tobacco line: 1-877-448-7848

Home page: www.cancer.gov

Smoking cessation: www.smokefree.gov

Nicotine Anonymous

Toll-free number: 1-877-879-6422

Web site: www.nicotine-anonymous.org

American Heart Association

Toll-free number: 1-800-AHA-USA-1 (1-800-242-8721)

Web site: www.americanheart.org

American Lung Association

Toll-free number: 1-800-LUNG-USA (1-800-586-4872)

Home page: www.lungusa.org

Tobacco cessation program "Freedom from Smoking Online": www.ffsonline.org

Additional resources

More information from your American Cancer Society

The following information may also be helpful to you. These materials may be ordered from our toll-free number.

Child and Teen Tobacco Use (also available in Spanish)

Cigar Smoking (also available in Spanish)

Cigarette Smoking (also available in Spanish)

Double Your Chances of Quitting Smoking

Guide to Quitting Smoking (also available in Spanish)

Helping a Smoker Quit: Dos and Don'ts

Quitting Smoking - Help for Cravings and Tough Situations (also available in Spanish)

Secondhand Smoke (also available in Spanish)

Women and Smoking (also available in Spanish)

No matter who you are, we can help. Contact us anytime, day or night, for information and support. Call us at **1-800-227-2345** or visit www.cancer.org.

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