Which of the following statements are true, and which are false? Check your answers on p. 642.

1. At high doses, nicotine is a nerve poison.
2. Chewing tobacco is safer than smoking tobacco because no smoke gets into the lungs.
3. Herbal cigarettes are safer than tobacco cigarettes because they don’t contain tobacco.
4. You can smoke for many years before you start to harm your lungs.
5. The smoke that escapes from a burning cigarette is dangerous to others.
6. The placenta protects a fetus from smoke in women that smoke during pregnancy.
7. Nonsmokers get fewer colds than smokers.
SECTION 1
Tobacco Use

SECTION 2
Dangers of Tobacco Use

SECTION 3
A Tobacco-Free Life

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MARCUS PULLED OUT A BOX OF BIDIS. “HEY, YOU WANT ONE?” HE ASKED BLANCA. “I DIDN’T KNOW YOU SMOKED,” REPLIED BLANCA. “JUST HERBAL CIGARETTES,” SAID MARCUS. “THEY AREN’T BAD FOR YOU LIKE REGULAR CIGARETTES ARE.”

**ALL TOBACCO PRODUCTS ARE DANGEROUS**

There are many types of tobacco products, including cigarettes, chewing tobacco, snuff (dip), pipe tobacco, cigars, and herbal cigarettes. Despite what many people think, all tobacco products have dangerous chemicals. Nicotine is the addictive drug that is found in all tobacco products. At low doses, it is a mild stimulant and muscle relaxant. At higher doses, it is a powerful nerve poison. Sixty milligrams of nicotine are enough to kill most people. One or two milligrams are inhaled when a cigarette is smoked.

**CIGARETTE SMOKE HAS POISONOUS CHEMICALS**

There are more than 4,000 chemicals in cigarette smoke. At least 40 of the chemicals in cigarette smoke are carcinogens (kahr SIN uh juhnz), chemicals or agents that cause cancer. Tar is a sticky, black substance in tobacco smoke that coats the inside of the airways and that contains many carcinogens, including the following:

- cyanide—a poisonous gas used to develop photographs
- formaldehyde—a substance used to preserve laboratory animals and as embalming fluid
- lead—a dangerous metal
- vinyl chloride—a flammable gas used to make plastic products

Other dangerous chemicals in cigarette smoke include carbon monoxide and ammonia. Carbon monoxide is a gas that blocks oxygen from getting into the bloodstream. It can be deadly. Ammonia is a chemical found in bathroom cleaners.
**Other Forms of Tobacco Have Poisonous Chemicals** Tobacco products that don’t produce smoke are also harmful. Snuff contains two to three times more nicotine than cigarette smoke does. Eight dips per day have the same amount of nicotine that about 30 cigarettes do.

In addition to containing nicotine and tar, smokeless forms of tobacco, such as snuff (dip) and chewing tobacco, contain many different carcinogens. These carcinogens include arsenic, nickel, benzopyrene, and polonium (which gives off radiation). Snuff and chewing tobacco lead to mouth sores and oral cancer. Oral cancer can be severely disfiguring when large amounts of tissue and bone must be removed to treat it. Gruen Von Behrens, shown here, started using smokeless tobacco at age 13 to “fit in.” By age 17 he was diagnosed with cancer.

Many teens think herbal cigarettes, such as cloves, bidis, and kreteks, are safe because they don’t contain tobacco. This belief is not true. Herbal cigarettes do contain tobacco and a spice that makes them taste better, so their flavor is more attractive to teens.

Pipe tobacco and cigars may seem safer because they are usually not inhaled deeply. However, pipe tobacco and cigars have been linked with oral cancer. There is NO safe form of tobacco.

---

Gruen Von Behrens has had almost 30 surgeries to remove cancerous tumors resulting from smokeless tobacco use. Now he travels and shares his experience with young people so that others can learn about the dangers of tobacco.

---

**Analyzing DATA**

**Cigarette Smoking Is Deadly**

1. Each slice of the pie indicates a percentage of the total number of deaths due to cigarette smoking.

2. The asterisk indicates the average number of deaths per year from 1995 to 1999 in the United States.

**Causes of Deaths Due to Cigarette Smoking**

- Lung cancer: 31%
- Heart disease: 20%
- Chronic lung disease: 17%
- Other causes (ex: sudden infant death syndrome): 4%
- Other cancers: 7%
- Stroke: 21%
- * Shown as percentages of the average number of deaths per year (406,290) for the years 1995–1999 in the U.S.

**Your Turn**

1. What is the total percentage of deaths due to smoking-related cancers?

2. Calculate the total number of smoking-related deaths due to chronic lung diseases. (Hint: Use the information indicated by the asterisk.)

3. What percentage of smoking-related deaths result from damage to the circulatory system?

4. **CRITICAL THINKING**

   What might be some of the smoking-related causes of death included in the group labeled “Other cancers”?

---

Source: Centers for Disease Control and Prevention.
Debbie Austin warns teens about the dangers of cigarettes. After years of smoking, she had to have her larynx removed. She can speak only if she covers a hole in her throat that helps her breathe and cough. In the background, the poster shows Debbie still smoking through the hole.

**Nicotine Is Addictive**

Cigarette smoking kills more than 400,000 people in the United States each year. Almost all smokers start as teenagers. No one ever thinks he or she will become addicted. However, like all other addictive drugs, nicotine has effects on the brain and other parts of the body. The effects of nicotine on the brain and body lead to physical dependence and addiction. Tobacco companies once claimed that nicotine was not addictive. This claim has been proven to be false.

Nicotine addiction leads people to smoke over long periods of time despite the many health problems that smoking has been proven to cause. Even after losing her larynx to throat cancer, Debbie Austin, pictured above, still continued to smoke. She struggled to overcome addiction and is now working to educate young people about the dangers of cigarette smoking. Quitting smoking is difficult, and withdrawal is unpleasant. But the dangerous effects of tobacco use are far worse than withdrawal.

**SECTION 1**

**Using Key Terms**

1. **Define** carcinogen.

2. **Identify** the term that means “a sticky, black substance in tobacco smoke that coats the inside of the airways and that contains many carcinogens.”

3. **Identify** three kinds of tobacco products.

4. **Identify** the addictive substance found in all tobacco products.
   a. tar
   b. nicotine
   c. cyanide
   d. carbon monoxide

5. **List** four dangerous chemicals in cigarette smoke.

6. **List** three carcinogens found in smokeless tobacco products.

7. **State** the reason clove cigarettes, bidis, and kreteks are dangerous for teens.

**Critical Thinking**

8. What would you tell a friend who thinks smoking herbal cigarettes is safe?

9. **LIFE SKILL** Practicing Wellness List four chemicals that are found in tobacco products and that also have other uses in society. Would you expect any of these chemicals to be healthy for you based on their other uses? Why or why not?
Dangers of Tobacco Use

OBJECTIVES
State the short-term effects of tobacco use.
Summarize the long-term health risks associated with tobacco use.
State the effects of secondhand smoke on a nonsmoker.
Describe how smoking affects unborn children whose mothers smoke during pregnancy.
List three reasons you would give a friend to encourage him or her not to smoke.

KEY TERMS
emphysema a respiratory disease in which air cannot move in and out of alveoli because they become blocked or lose their elasticity
sidestream smoke smoke that escapes from the tip of a cigarette, cigar, or pipe
mainstream smoke smoke that is inhaled through a cigarette and then exhaled by a cigarette smoker
environmental tobacco smoke (secondhand smoke) a combination of exhaled mainstream smoke and sidestream smoke

Geoff, are you OK?” Asked Julian. Geoff had been coughing for about 5 minutes. “Sure, I’m fine,” Geoff replied, still coughing. “Maybe you should cut back on the smoking,” Julian suggested. “No way. I’m too young for smoking to cause me problems,” said Geoff.

Short-Term Effects of Tobacco Use
Tobacco has many effects on the body. Some of these effects can be seen very soon after a person starts smoking. Because it takes only seconds for the nicotine inhaled from a cigarette to get into the bloodstream, the nicotine starts to act almost immediately. Nicotine has the following effects:

- stimulates the brain reward system
- increases heart rate and blood pressure
- increases breathing rate
- increases blood-sugar levels
- stimulates the vomit reflex

The other harmful substances in tobacco smoke cause other short-term effects. For example, carbon monoxide blocks oxygen from getting into the bloodstream. Tar irritates the insides of the lungs, which leads to coughing and to many of the long-term dangers of tobacco smoke.

The chemicals in dip damage the inside of the mouth. The gums become irritated and raw, which leads to open sores and cancer of the mouth.

In addition to the effects on your health, tobacco makes your breath and clothes stink and leaves black specks between your teeth. Snuff and chewing tobacco also cause you to spit often. None of these effects are very attractive.

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**Long-Term Effects of Tobacco Use**

As summarized in Figure 1, the long-term effects of tobacco use aren’t just unpleasant—some of them can be deadly. Tobacco use is the leading cause of preventable death in the United States. Twenty percent of people who die each year are killed by tobacco-related illnesses.

**Addiction** Nicotine, the drug in tobacco products, stimulates the brain reward system (the area of the brain that registers pleasure) and changes the way the brain functions. These changes lead to addiction.

**Bronchitis and Emphysema** The damage from tobacco smoke is most devastating in the respiratory system. The lungs are made up of large tubes called *bronchi* and smaller tubes called *bronchioles*. The tubes deliver oxygen to *alveoli*, tiny air sacks in the lungs. Oxygen passes from the alveoli into the bloodstream. Healthy people secrete a thin layer of mucus in their bronchi to trap harmful particles that they may inhale. This mucus is constantly removed from the lungs by tiny hairs, called *cilia*.

Cigarette smoke paralyzes and then kills cilia. As a result, mucus and inhaled particles (along with tar and other chemicals from tobacco products) build up deep within the lungs, which gives smokers a chronic cough. In addition, constant irritation of the bronchi causes them to swell, which makes breathing more difficult. This inflammation, combined with the built-up particles, tar, and mucus in the lungs, can lead to chronic bronchitis and infection.

**Emphysema** is a respiratory disease in which air cannot move in and out of the lungs because the alveoli become blocked or lose their elasticity. A person who has emphysema cannot breathe normally and is unable to get enough oxygen to the body. Emphysema worsens over time.

*Chronic obstructive pulmonary disorder* (COPD) is a disorder that is a combination of chronic bronchitis and obstructive (blocked) emphysema. COPD causes chronic coughing, difficulty breathing, frequent infections, and eventually death due to respiratory failure. COPD is almost always linked with smoking.

**Heart and Artery Diseases** Nearly 170,000 people die each year from heart and artery disease caused by cigarettes. Nicotine increases heart rate, narrows blood vessels, and eventually causes arteries to become hardened and clogged. All of these effects combine to increase the risk of heart attack, blood clots, and stroke.

**Cancer** Cigarettes promote several kinds of cancers, including lung, pancreas, bladder, cervix, and kidney cancer. Tobacco products are the major causes of cancers of the mouth and throat. Lung cancer often spreads to other parts of the body, which is one of the factors that makes lung cancer so deadly. Lung cancer currently kills more people than any other form of cancer does.
Long-Term Effects of Tobacco on the Body

Long-term tobacco use damages the body in many ways.

**Mouth**
Smoking changes the natural chemical balance inside the mouth, leading to increased plaque, gum disease, and tooth decay. Tar in tobacco smoke stains teeth yellow.

**Lungs**
Cigarette smoke puts carcinogens directly into the lungs. It kills the tiny hairs that remove harmful substances from the lungs. The loss of these hairs increases the risk of bronchitis, emphysema, and lung cancer.

**Heart**
Nicotine increases heart rate and blood pressure and narrows the blood vessels. It also increases the risk of hardened and clogged arteries, which can lead to a heart attack.

**Brain**
Smoking reduces oxygen to the brain, narrows blood vessels, and can lead to strokes. Nicotine also changes the brain in ways that lead to addiction.

**Skin**
Smoking breaks down the proteins that give skin elasticity. This leads to wrinkles and premature aging of the skin. Smoking also increases a person’s chances of developing skin cancer.

**Immune system**
Chemicals in smoke reduce the activity of immune system cells. Damaging the immune system increases the chances of suffering from diseases such as cancer.
Immune System Suppression  Chemicals in smoke reduce the activity of immune system cells. This makes the body more vulnerable to disease. The immune system is less able to fight lung diseases and remove cancer cells that are caused by smoking.

Other Long-Term Effects of Tobacco Use  Smoking damages the stomach’s ability to neutralize acid after a meal. This causes excess acid to build up and damage the stomach and small intestine, which leads to ulcers and to cancer.

Tobacco also makes you unattractive. Smokers have stains on their fingers. Both smokers and users of snuff develop discolored teeth and bad breath. People who dip also develop receding gums and sores in their mouths. Smoking leaves an odor of smoke and a film of tar on your clothes. Smoking also dulls the senses of smell and taste—you can no longer appreciate the good taste of foods.

Effects of Smoke on Nonsmokers

Unfortunately, even if you don't smoke, you can still be exposed to the harmful chemicals in cigarettes. When a smoker lights a cigarette, he or she creates two sources of smoke. The first source is called sidestream smoke. Sidestream smoke is the smoke that escapes from the tip of a cigarette, cigar, or pipe. Sidestream smoke can be as much as half of the smoke from a cigarette. The second source of smoke is mainstream smoke. Mainstream smoke is smoke that is inhaled through a tobacco product and exhaled by a tobacco smoker. Environmental tobacco smoke (secondhand smoke) is a combination of exhaled mainstream smoke and sidestream smoke. Environmental tobacco smoke is inhaled by anyone near the smoker.
Dangers of Secondhand Smoke  Lung cancer caused by environmental tobacco smoke kills 3,000 nonsmokers in the United States each year. For every eight people killed by their own smoking, a nonsmoker is killed by exposure to secondhand smoke.

Secondhand smoke also causes illness. For example, heart function in healthy young men has been shown to be reduced by secondhand smoke. Secondhand smoke also causes headaches, nausea, and dizziness.

The children of smokers suffer from more lower respiratory infections, more asthma, and more ear infections than children who live in smoke-free homes do.

Dangers of Tobacco Use During Pregnancy  Women who smoke while pregnant risk the health of their unborn child. Chemicals from cigarette smoke pass through the placenta to the developing infant and affect the baby the same way they affect the mother.

Smoking while pregnant can lead to miscarriage, premature birth, low birth weight, and sudden infant death syndrome. Sudden infant death syndrome (SIDS) is a condition in which infants die in their sleep for unknown reasons.

Smoking can also affect a fetus’s brain, causing developmental difficulties. Infants whose mothers smoke while pregnant can be physically dependent on nicotine when they are born.

If the pregnant mother does not smoke but lives with a smoker during her pregnancy, her baby faces many of the same risks faced by a baby born to a mother who smokes. Each year, passive smoking contributes to more than 150,000 cases of bronchitis and pneumonia in babies.

Effects of Tobacco on the Fetus and Baby  
- Risk of miscarriage
- Risk of premature birth
- Low birth weight
- Slow growth rate
- Risk of sudden infant death syndrome (SIDS)
- Risk of developing respiratory illness
- Risk of developing learning difficulties

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Delaine was walking with her friend, Miguel, after school. Miguel pulled a pack of cigarettes out of his pocket and started to light one. “Hey, you want one?” he asked Delaine. “No thanks, you know I don’t smoke,” she answered.

Why Do People Use Tobacco?

Most tobacco users can name reasons they like tobacco. Some people say they use cigarettes to deal with stress. Some say smoking makes them look older; others say tobacco energizes them. But what makes people want to try tobacco in the first place?

► **Family and friends**  If your parents smoke, smoking may seem normal to you. If your friends smoke, they’ll almost certainly urge you to smoke, too. Being around smokers increases the possibility that you will try cigarettes.

► **Misconceptions**  Messages about the dangers of tobacco to health are often not believed. People see others who have used tobacco for many years and who seem to be fine. Unfortunately, the effects of tobacco use may not be visible. Tobacco-related cancer is often not detected until it is large and may have spread.

► **Advertising**  Tobacco advertising has been very effective in the past. Tobacco products have been marketed by the tobacco industry using rugged-looking cowboys, attractive models, and even cartoon animals. The idea they are selling is obvious—smoking makes men handsome and women attractive, and smoking is fun and makes people look cool.

► **Curiosity**  Some people try tobacco because they’re curious. They may see other people smoking and wonder what it’s like.

► **Rebellion**  Almost all adults tell you that you shouldn’t try tobacco. Sometimes, teens get tired of being told what they can and can’t do. Using tobacco can be one way to rebel against authority. But you can’t prove your independence by becoming addicted to tobacco.

Smoking affects smokers and everyone around them.
Tobacco Use Affects the Family and Society

Tobacco use causes health and financial problems for the family and costs society a lot of money.

Costs to Families  Many of the costs of tobacco use to the family are related to health problems. For example, tobacco use costs the family

- over $1,500 per year for buying tobacco products
- lost wages due to illness
- medical bills
- funeral costs

Despite the best doctors and the most caring families, tobacco kills. Twenty percent of premature deaths in the United States are caused by tobacco use. Think of the devastation that loss causes families. After having cared for a sick smoker, family members have to watch him or her die. Then, they have to live without their loved one, who could be a father, mother, sister, or brother.

Costs to Society  In addition to the cost of tobacco use to families, tobacco use creates a high cost to society. In fact, society is estimated to pay about $138 billion per year in financial costs due to smoking. These costs are related to medical care that cannot be paid by smokers. Businesses often pay part of a person’s insurance costs, which can be very high when treating tobacco-related diseases. Another cost of smoking is the high number of accidental fires that are started by careless smokers.

Tobacco and the Law  Selling tobacco to anyone under 18 years of age is illegal. Companies can pay very high fines if they are caught selling tobacco to a minor. In many states, teens are also fined or assigned community service if they are caught using tobacco.
Beliefs vs. Reality

<table>
<thead>
<tr>
<th>Beliefs</th>
<th>Reality</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Smoking makes me look more mature.”</td>
<td>Smoking can’t make you look mature, but it can make you look older because smoking damages your skin.</td>
</tr>
<tr>
<td>“Smoking makes me look sexy.”</td>
<td>Smokers get stained teeth, receding gum lines, bad breath, wrinkled skin, and stained fingers—traits not usually considered sexy.</td>
</tr>
<tr>
<td>“I can stop whenever I want.”</td>
<td>Cigarettes are addictive. Three thousand teens start smoking every day; most will not be able to stop.</td>
</tr>
<tr>
<td>“All the cool kids smoke.”</td>
<td>Does being hooked on tobacco really seem that cool?</td>
</tr>
</tbody>
</table>

Tips for Quitting

If you are a smoker, you may be wondering why you should quit. There are plenty of reasons to quit.

- **Smoking is unhealthy.** Obviously, the most important reason to quit smoking is for your health. The damage smoking does to your lungs and cardiovascular system makes smoking too dangerous to be worth the risk.
- **Smoking is expensive.** Twenty-five to fifty dollars a week is a lot to pay for a bad habit.
- **Smoking stinks.** Most people don’t enjoy being around the smoke or the smell of cigarettes. Cigarettes also give you bad breath.
- **Smoking looks unattractive.** Many people start smoking thinking it will make them look attractive, but yellow fingers and teeth aren’t attractive.
- **Smoking damages your skin.** Smoking can cause your skin to age prematurely, which causes you to look old before you actually are.

**Decide That You Can Do It**  Quitting on your own requires dedication and determination. If you smoke regularly, you are probably addicted to nicotine. Withdrawal symptoms from stopping tobacco use can include nervousness, irritability, or difficulty sleeping. There are medical products available to help ease withdrawal. Nicotine substitutes, medicines that deliver a small amount of nicotine to the body to help people quit smoking, include nicotine patches and nicotine gum. Consult a doctor before using any medicine.

Many people find that withdrawal is actually easier to deal with than overcoming the psychological addiction that developed as cigarette smoking became part of their daily activities. People trying to quit will have many cues that trigger an urge to smoke as they go through their day. The things a person usually did with a cigarette in hand will be difficult to do without wanting one.
Get Started  There are things you can do to make quitting easier. First, set a quitting date. Decide in advance when you want to quit using tobacco, and keep that date. Collect all your cigarettes, ashtrays, and lighters, and get rid of them all so you aren’t tempted to start again.

Change Your Habits  Start healthy habits before you try to quit smoking. People who exercise are more likely to quit, so this is a good time to start exercising. Engaging in other activities will also help take your mind off quitting. The less time you spend sitting around thinking about how hard quitting is, the easier it will be.

This is also a good time to look at your diet and make sure it’s healthy. Most people do gain some weight when they quit, but eating well and exercising will minimize any weight gain.

Set Goals  After you’ve quit, staying free of tobacco can be difficult. To help you stay tobacco free, set goals for yourself. Keep a calendar, and celebrate each week you don’t use tobacco. You can reward yourself with the money you save by not buying tobacco. If you smoked a pack a day, you will have saved at least $25 in the first week. Twenty-five dollars a week really adds up. You will probably have a lot of money to celebrate quitting smoking. Celebrating your success can make quitting easier.

Get Support  Quitting can be hard, but you don’t have to quit alone. There are many kinds of support groups that can help you. Your parents, teacher, school nurse, doctor, local health department, and local American Cancer Society or American Lung Association branches can help you find those groups. Another approach is to join an after-school club that will keep you busy and take your mind off smoking. The new friends you make in these groups can encourage you when you’re feeling like you just can’t do it.

Reasons to Quit Smoking

▸ You’ll live longer.
▸ You’ll smell better.
▸ You won’t have bad breath.
▸ You’ll have whiter teeth.
▸ You’ll be able to taste food.
▸ You’ll have extra money.
▸ You won’t cough all the time.
▸ You’ll be able to sit through a whole movie without shaking.
▸ You won’t need a chemical to make you feel good.
Skills for Refusing Tobacco

Have you ever been offered something you don’t want? Sometimes, convincing people that you’re not interested is difficult. Practicing effective refusal skills can help you know what you want to say before you’re in a high-pressure situation. The following scenario is an example of using effective refusal skills to resist peer pressure to smoke.

“Hilary, come on. It’s so boring in here. Let’s go have a smoke.”
“You know I don’t smoke, Tiffany.”
“Oh don’t be such a goody-two-shoes. Just relax.”
“Tiff, I spent all afternoon getting ready for this party. I’m wearing my favorite perfume. I really don’t want to smell like a cigarette.”
“Oh, Hilary. Don’t you want to look cool?”
“Tiffany, you know I don’t want to smoke. Why do you try to force me? Hey, look. There’s Ian. You’ve wanted to go out with him all year, right? He won’t even know you’re here if you’re out back smoking. Why don’t we go dance? Maybe you can get his attention.”

Refusing Effectively  
Hilary did a good job of saying no without hurting her friendship. You can learn to do this by following the steps below.

1. **Be honest.** Hilary was direct with her friend. She stayed calm and didn’t attack Tiffany or put her down.

2. **Give a reason.** Hilary gave her friend a reason she didn’t want to smoke. It was a simple reason but one that made sense to her friend at that moment.

3. **Suggest an alternative.** Hilary suggested another activity that would appeal to both of them.

Of course, using effective refusal skills is not always easy. Telling your friends no can be very difficult. Many people find it impossible to keep resisting under pressure. But you know you don’t want to smoke. And you don’t want to lose your friends over a cigarette. Practicing refusal skills can help you turn down tobacco, or anything else you don’t want, without losing your confidence or your friends.

<table>
<thead>
<tr>
<th>“Come on; just try one.”</th>
<th>“Isn’t that how you got addicted?”</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Smoking is sexy.”</td>
<td>“There’s nothing sexy about smelling like an ashtray.”</td>
</tr>
<tr>
<td>“Don’t be so paranoid. These are made from cloves, so they’re healthy.”</td>
<td>“They have tobacco, so they’re still bad for you.”</td>
</tr>
<tr>
<td>“Dipping makes you look as cool as a sports star.”</td>
<td>“I don’t think I’ll look cool with brown spit.”</td>
</tr>
<tr>
<td>“Everyone else is smoking.”</td>
<td>“So, not smoking makes me unique? I like being unique.”</td>
</tr>
</tbody>
</table>
Benefits of Being Tobacco Free

What are the benefits of not using tobacco? All the studies agree that people who don’t use tobacco are healthier. They tend to live longer and are at a lower risk of lung cancer, oral cancer, heart disease, emphysema, and bronchitis. People who don’t use tobacco also have other benefits, such as

- getting fewer colds, sore throats, and asthma attacks
- not coughing if they’re not sick
- being less likely to have stained teeth, bad breath, or chronic gum disease
- being able to taste their food and smell flowers
- not smelling like smoke all the time
- not exposing loved ones to the harmful chemicals in smoke
- not having black bits of tobacco in their teeth
- not having to carry around a cup of brown spit

Finally, people who stay tobacco free never have to break an addiction to tobacco. Almost everyone who uses tobacco regularly for more than a few months becomes addicted. Staying tobacco free protects your brain from the changes caused by an addictive drug.

Kicking the Habit

Imagine that you had decided to help a friend quit smoking. Design a plan of goals and rewards to encourage your friend to quit using tobacco and stay tobacco free.

1. Set a time limit. Decide with your friend that on a certain day your friend will quit smoking. Have everything organized so that your friend will have no temptations once he or she quits.

2. Set milestones. Mark dates on the calendar to divide up the one big goal into several smaller ones.

3. Reward your friend. List things you can do to celebrate your friend’s achievement. As he or she reaches each milestone, mark the occasion with a reward for your friend’s self-discipline and determination.

Setting Goals

1. Describe ways that you can provide support and encouragement to someone who is trying to quit smoking.

2. List some of the situations that may make it difficult for a person to stay tobacco free. List situations to avoid.

3. In what other situations might these goal-setting skills help?
Life Without Tobacco  What does it mean if you’ve used tobacco? Is it too late to protect your health? Studies show that the sooner you quit using tobacco, the sooner your body can get back to normal.

Within half an hour after quitting smoking, your blood pressure and heart rate will fall back to normal. Eight hours later, you will have rid the carbon monoxide from your bloodstream, and you will have normal blood-oxygen levels. Within a few days, your sense of smell and taste will improve, and breathing will be easier.

During the following months, your lung health will improve, and you won’t be short of breath anymore. You’ll be reducing your risk of lung cancer by about 10 times, the threat of emphysema will almost disappear, and your risk of heart disease will decrease as well. Even in such a short time, living without tobacco makes a big difference.

Live Healthy and Tobacco Free  Life is better without tobacco. The 80 percent of teens who don’t smoke agree. Tobacco is a dangerous and addictive drug. All forms of tobacco have been proven to cause major health problems that can be deadly. As a result of lawsuits, tobacco companies have paid billions of dollars to the states for exactly that reason.

People may have many reasons for trying tobacco. Friends, family, media influence, rebellion, boredom, and curiosity are all reasons people may smoke or dip for the first time. Most tobacco users generally have only one reason for continuing to use tobacco—addiction. And the best reason for staying tobacco free is life. Your life, your friends’ lives, and the lives of all your loved ones will be better without tobacco.

SECTION 3

Using Key Terms
1. Define nicotine substitute.

Understanding Key Ideas
2. List three reasons people may begin using tobacco.
3. State two ways that tobacco use affects families and society.
4. Identify which of the following is not a cost of tobacco use to society.
   a. tobacco products  c. fetal alcohol syndrome
   b. funeral costs  d. medical costs

5. Describe a strategy a person could use to make quitting smoking easier.
6. Identify five benefits of living tobacco free.

Critical Thinking
7. LIFE SKILL Using Refusal Skills  List five reasons you can give for refusing to use tobacco. Which of these reasons is most important to you?
8. LIFE SKILL Communicating Effectively  Imagine that you have a family member who smokes heavily. What do you think would be the best way to try to convince them to quit smoking?
CHAPTER 11

Highlights

Key Terms

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carcinogen (264)
tar (264)
carbon monoxide (264)

SECTION 2

emphysema (268)
sidestream smoke (270)
mainstream smoke (270)
environmental tobacco smoke (secondhand smoke) (270)

SECTION 3

nicotine substitutes (274)

The Big Picture

✔ There are many kinds of tobacco products, such as cigarettes, dip, snuff, chew, bidis, kreteks, and pipe tobacco.
✔ All forms of tobacco are dangerous because they contain many harmful chemicals and carcinogens, including nicotine, tar, carbon monoxide, cyanide, and formaldehyde.
✔ Nicotine can enter the body through the lungs, the gums, and the skin.
✔ Herbal cigarettes are thought to be more healthy but are actually just as dangerous as conventional cigarettes.
✔ People who use tobacco products find it very hard to quit because nicotine is a highly addictive drug.

✔ The short-term effects of tobacco use include increases in heart rate, blood pressure, and breathing rate, as well as a reduction in the amount of oxygen that reaches the brain.
✔ Long-term tobacco use leads to oral and lung cancer, bronchitis, emphysema, heart disease, artery disease, and other health problems.
✔ People who breathe environmental tobacco smoke are exposed to the same dangerous chemicals as smokers.
✔ Smoking while pregnant can lead to several kinds of problems for the infant, including miscarriage, developmental difficulties, and SIDS.
✔ There are many reasons not to smoke, including protecting your family, friends, and loved ones from the harmful effects of environmental tobacco smoke.

✔ People begin smoking for many reasons. Some want to fit in with friends who smoke, some find it normal after growing up around family members who smoke, and others want to look cool.
✔ Using tobacco is expensive. It costs families and society billions of dollars each year in healthcare and lost productivity.
✔ Quitting smoking can be difficult, but setting a quitting date, marking your progress, getting involved in other activities, and rewarding yourself can help make quitting easier.
✔ Refusing tobacco may be difficult, but practicing effective refusal skills makes it easier to resist pressure.
✔ There are many benefits to being tobacco free, including looking younger, feeling healthier, and living longer than you would if you used tobacco.
✔ Whether a person has used tobacco or not, choosing to live without tobacco dramatically improves a person’s quality of life.
Using Key Terms

- carbon monoxide (264)
- carcinogen (264)
- emphysema (268)
- environmental tobacco smoke (secondhand smoke) (270)
- mainstream smoke (270)
- nicotine (264)
- nicotine substitutes (274)
- sidestream smoke (270)
- tar (264)

1. For each definition below, choose the key term that best matches the definition.
   a. the smoke inhaled and exhaled by the smoker
   b. a gas that blocks oxygen from entering the bloodstream
   c. a lung disease in which the alveoli lose their elasticity or become blocked
   d. any chemical or agent that causes cancer
   e. a sticky substance in tobacco smoke that coats the inside of the airway and contains many carcinogens
   f. the addictive drug found in tobacco

2. Explain the relationship between the key terms in each of the following pairs.
   a. nicotine and carbon monoxide
   b. tar and emphysema
   c. environmental tobacco smoke and carcinogen
   d. mainstream smoke and sidestream smoke

Understanding Key Ideas

Section 1

3. Name four types of tobacco products.

4. State the reason it is difficult for people to quit using tobacco products.

5. Identify the carcinogens found in tobacco.
   a. benzene
   b. formaldehyde
   c. vinyl chloride
   d. all of the above

6. Compare the amount of nicotine in snuff with the amount in cigarette smoke.

7. Are herbal cigarettes safer than regular cigarettes?

8. CRITICAL THINKING Would you consider nicotine a dangerous drug? Explain.

Section 2


10. Which of the following is a long-term effect of tobacco use?
    a. heart and artery disease
    b. cancer
    c. receding gums and mouth sores
    d. all of the above

11. Why is smoking dangerous to nonsmokers?

12. Women who smoke while pregnant are more likely to
    a. suffer miscarriage.
    b. have bronchitis.
    c. cause SIDS.
    d. All of the above

13. List four reasons not to smoke that you could give to a friend.

14. CRITICAL THINKING One of the negative aspects of smoking is that the clothes of smokers usually smell like tobacco smoke. Explain why smokers generally cannot smell tobacco smoke on their clothes.

Section 3

15. What factors do you think contribute to people using tobacco in your school?

16. Describe the financial and health costs of smoking on both the family and the community.

17. Which technique does not help a person quit smoking?
    a. setting a goal
    b. punishing yourself for failing
    c. changing your habits
    d. getting support

18. List five benefits both smokers and smokeless tobacco users can expect after quitting.

19. Describe an effective refusal method you could use if someone were to tell you, “Here, try these new cigarettes, almost everyone in our school smokes these.”

20. CRITICAL THINKING Why might it be harder for a person to quit smoking if his or her friends and parents smoke?
Interpreting Graphics

Study the figure below to answer the questions that follow.

For a sophisticated smoke, choose Posh Lights

21. What do you think the word *sophisticated*, as used in the ad above, means?

22. What message is this ad trying to convey about tobacco use?

23. **CRITICAL THINKING** Do you think this ad might encourage a young person to smoke? Explain.

Activities

24. **Health and You** Imagine you are riding in a car with someone who smokes. Write a paragraph explaining how you might politely and effectively ask the person not to smoke in the car.

25. **Health and Your Community** Environmental tobacco smoke is just as dangerous as mainstream smoke. Write a one-page report advocating for smoke-free environments for nonsmokers.

26. **Health and You** Write a reply to the following statement: “Just try this cigarette once; one try won’t harm you. It’s not like you’ll become an addict.”

Action Plan

27. **Take Charge of Your Health** Use of clove cigarettes, bidis, and kretek has become more popular among teens. Research these products, and write a one-page report explaining why teens use these tobacco products.

28. In this paragraph, the word *finite* means
   A limited.
   B endless.
   C spendable.
   D free.

29. What can you infer from reading this paragraph?
   E Tobacco products are cheap.
   F Tony makes more money than Cameron does.
   G Tony thinks tobacco is worth the expense.
   H Cameron is probably addicted to nicotine.

30. Write a paragraph discussing things that Cameron could do to make quitting easier. What could Tony do to help his friend quit smoking?

31. **CRITICAL THINKING** One reason that tobacco products are so expensive is that the U.S. government charges taxes that consumers must pay when they buy tobacco. Why do you think the government keeps raising these taxes?