STAY SMART ABOUT TOBACCO

GET THE FACTS and help build a TOBACCO-FREE generation

INSIDE:
- Smoking Rates Nose-Dive
- Tobacco’s Alarming Health Risks
- The Truth About E-Cigarettes

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CAMPAIGN for TOBACCO-FREE KIDS
Do you know the facts about tobacco?

You’ve probably heard many times that smoking is bad for your health, but do you know how it could affect your body and your life? Did you know that most teens today don’t smoke?

This magazine, *Stay Smart About Tobacco*, was designed to give you the facts about the dangers of tobacco products. The articles on the following pages give you the latest scientific evidence about the risks of everything from secondhand smoke to e-cigarettes. Plus, you’ll find tips on how to help encourage friends or family to quit.

You are your best protection against the hazards of tobacco. Arm yourself with the facts so that you can make healthy decisions and help build a tobacco-free generation.

**POSTER CONTEST!**

Check out the student poster contest on the back cover. Create your own anti-tobacco messaging for a chance to win great prizes!
Some people think they can try smoking just a few times and not be affected. Science shows that’s not true. In fact, about three out of four teen smokers end up smoking into adulthood, even if they intend to quit after a few years.

The reason is that tobacco contains nicotine. This highly addictive chemical changes the way brain signals are processed. It increases heart rate, making a person feel more alert. Nicotine also raises the level of dopamine, a brain chemical linked to feelings of pleasure.

When these effects wear off, people feel a strong need for more nicotine. Stopping the use of the drug can cause uncomfortable withdrawal symptoms, such as headaches, irritability, and concentration problems.

New research shows that young people are even more at risk for nicotine addiction than adults. A teen can become hooked after only two weeks of smoking.

Since the 1960s, health officials and the US government have been educating people about the dangers of tobacco in the hopes that fewer people will use it. The good news is that it’s helping!

The statistics show more and more that teens and adults increasingly do not smoke. Studies show that the rates of smoking in people of all ages have decreased significantly in the last 20 years. The percentage of adult smokers is the lowest it has been since scientists at the Centers for Disease Control and Prevention (CDC) began keeping track in 1965.
Tobacco contains many toxic chemicals. When people use smokeless tobacco, such as chew or dip, or smoke a cigarette, these chemicals are absorbed into the body. That’s true even for nonsmokers who inhale secondhand smoke. Look at the diagram below to see how these chemicals can affect your body.

**BRAIN:** Nicotine in tobacco and related products causes feelings of pleasure by raising the level of the brain chemical dopamine; when the nicotine wears off, the feeling disappears. The result: People crave more nicotine.

**EARS:** Children who are exposed to secondhand smoke have more ear infections.

**LUNGS:** The poisonous chemicals in tobacco smoke damage cilia, fine hairs in the lungs. That makes it difficult to breathe and increases the risk of serious illnesses, such as pneumonia. The chemicals can also cause lung cancer.

**BLOOD:** Chemicals in tobacco can make blood cells stickier. That increases a person’s risk of a potentially deadly stroke, when blood stops flowing to parts of the brain.

**EYES:** Smoking increases the risk of developing cataracts—a condition in which the lens of the eye becomes cloudy, making it difficult to see.

**TONGUE:** Using tobacco products can damage the tongue’s taste buds, which detect flavors. People who smoke may not be able to taste as well as nonsmokers.

**MOUTH:** Using smokeless tobacco, such as chew and dip, can cause gums to bleed and may lead to mouth cancer.

**HEART:** The chemicals in tobacco damage the body’s blood-carrying vessels. These changes can cause your heart to beat harder and faster, increasing the risk of a heart attack.

**Secondhand Smoke: Everyone Is at Risk**

You don’t have to smoke a cigarette to be at risk from the dangerous chemicals hidden inside.

The secondhand smoke that comes off lit cigarettes or that is exhaled by a smoker contains the same dangerous chemicals that a smoker inhales. When nonsmokers breathe in secondhand smoke, these chemicals are absorbed in the body. According to the Centers for Disease Control and Prevention, more than 40,000 nonsmoking Americans die every year from diseases that are caused by exposure to secondhand smoke.

Young people who are regularly exposed to secondhand smoke have a greater risk of ear infections and respiratory problems, such as bronchitis and pneumonia. Secondhand smoke can trigger an asthma attack in a child. Children with asthma who are around secondhand smoke have more severe and frequent asthma attacks.

To protect nonsmokers, many states have laws that ban smoking in public places, such as restaurants and workplaces. Some states also now have laws that prohibit smoking in a car when anyone under the age of 18 is riding along.

You can also help protect yourself. Avoid being near anyone who is smoking. Opening a window isn’t enough to keep the chemicals away. Smoke from one cigarette can linger in a room for hours. The chemicals from smoke can even stick to surfaces such as furniture, and linger for days after someone smokes. Ask your parents to make sure no one smokes in your home so that you aren’t at risk.
CIGARETTES: PACKED WITH POISONS

When a cigarette is lit, the burning tobacco emits more than 7,000 chemicals into the air. These substances don’t just cause a stink. Hundreds of the chemicals are toxic to humans and about 70 of them are believed to cause cancer. The chemicals either occur naturally in tobacco leaves or are produced by the chemical reactions that happen when the leaves are burned. Find out what’s lurking in tobacco smoke and where else you can find these poisonous chemicals.

BENZENE: Found in crude oil and gasoline, this chemical has been proven to cause cancer.

LEAD: Once used in paint, it’s now known to be toxic to humans. It can affect the way the brain works, especially in children.

FORMALDEHYDE: Perhaps best known as the chemical used to preserve dead bodies, formaldehyde may cause cancer in people. It also irritates the skin, eyes, and respiratory tract.

FUSION: This radioactive element emits radiation that can cause cancer. It’s found in the uranium ores used to power nuclear reactors.

AMMONIA: This chemical gives some household cleaners their strong smell. It’s also used in many fertilizers. Ammonia can irritate tissues and damage cells.

ARSENIC: This highly toxic chemical is found in rat poison.

CADMIUM: This heavy metal is used to make batteries. It’s also a known carcinogen, meaning it causes cancer.

CARBON MONOXIDE: This chemical, a common ingredient in car exhaust, is also found in cigarette smoke. In high concentrations, it can be deadly.

AMMONIA: This chemical gives some household cleaners their strong smell. It’s also used in many fertilizers. Ammonia can irritate tissues and damage cells.

HELP SOMEONE QUIT

Do you have family or friends who smoke? You may be able to help encourage them to quit. Many smokers who quit say that the support of loved ones helped.

Experts say that lecturing or nagging a smoker isn’t likely to be beneficial.

Instead, try explaining to your loved ones the reasons you want them to quit, such as that you are worried they might get sick. Share some of the facts you have learned about tobacco.

Don’t forget that quitting is very difficult. Many people have slips when they try to stop. You can support loved ones by celebrating their successes, both big and small.

Resources

Point those who smoke toward these resources that can help them quit:
• teen.smokefree.gov
• 1-800-QUIT-NOW
• smokefree.gov

Photos: batteries, © rakin-/iStock; organ in jar, © Leos Dora/Shutterstock; paint can, © Shunichi Okada/Shutterstock; car exhaust, © Sergiy Serdyuk/Shutterstock; gas pump, © iStock; poison bottles, © Ed Isaacs/Shutterstock; bottle of chemical liquid, © stevanovicigor/iStock; nuclear symbol, © pit74/iStock; cigarette in background, © Alexkvin/iStock; pointing finger, © Tarek El Sombati/iStock.
E-Cigarettes: A Growing Threat
What you need to know about a recent trend

In the past 10 years, e-cigarettes, or electronic cigarettes, have become a more than $1 billion industry in the United States. They can now be commonly seen in stores and advertised on television or in your favorite magazine.

Manufacturers claim e-cigarettes are safe because they don’t burn tobacco. However, e-cigarettes deliver the same addictive chemical, nicotine, as real cigarettes. Scientists are just beginning to learn about the possible risks they pose.

**On the Rise**
Manufacturers of e-cigarettes claim their products are a safe alternative for people who are addicted to the nicotine in tobacco. In recent years, many adults have tried using the devices to cut down on cigarettes. But studies have not proven that e-cigarettes help people quit. According to research, most adults who use e-cigarettes also smoke tobacco cigarettes.

Unlike tobacco, e-cigarette use is not currently regulated by the US government. Most states prohibit people under the age of 18 from using them. Still, in recent years, teens have begun trying them. Between 2013 and 2014, the use of electronic cigarettes among students in middle school tripled. They are the most commonly used nicotine products among middle school students.

**Health Risks**
Although e-cigarettes don’t release dangerous tobacco smoke, they are not harmless. Like real cigarettes, e-cigarettes deliver doses of the addictive drug nicotine. This powerful drug is particularly dangerous for the developing brains of young people (see “Nicotine: Don’t Get Hooked,” page 3).

Some early studies suggest that teens who use e-cigarettes are also more likely to use tobacco cigarettes. One reason is that if teens get hooked on the nicotine in

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**TOBACCO TIMELINE**

1913: The first modern cigarette is introduced.

1914–1918: Doctors claim cigarettes help soldiers injured in World War I.

1930: Scientists report the first scientific evidence that links smoking to cancer.

1964: The Surgeon General’s Report on Smoking and Health is released. It highlights the dangerous health consequences of smoking.

1965: Congress requires that all cigarette packets and ads include the Surgeon General’s warning highlighting the risks.

Photos: woman from Red Cross handing out cigarettes, © US Army Signal Corps/PhotoQuest/Getty Images; body, goa_novi/iStock; cigarette box, © James Leynse/Corbis.
e-cigarettes, they may eventually turn to real cigarettes.

Tests of some e-cigarettes have shown that they contain toxic chemicals, such as formaldehyde, a substance that is believed to cause cancer. A recent study showed that 75 percent of e-cigarettes tested contained a flavor chemical called diacetyl that has been linked to lung disease. Studies have shown that people who regularly inhale the chemical have a higher risk of developing severe respiratory problems.

The liquid inside e-cigarettes can also be poisonous if someone drinks or touches it. In 2015, there were an average of 255 calls every month to poison control centers about e-cigarettes.

**Rules Required**

One of the biggest concerns about e-cigarettes is that they are not currently regulated by the government. That means that there are few rules about safety, warning labels, and advertising (see “Youth Marketing?” at right). A 2009 study by the US Food and Drug Administration showed that the labels on e-cigarettes did not always accurately state the amount of nicotine in the products.

In 2014, the FDA proposed a new rule that would require e-cigarettes to be regulated by the US government. In the meantime, health officials are issuing warnings about the devices.

**How E-Cigarettes Work**

Unlike real cigarettes, e-cigarettes don’t burn tobacco. Instead, the devices have a cartridge inside that holds a liquid that contains nicotine, flavors, and other chemicals. When a user inhales on the e-cigarette, it causes a battery to power a vaporizer in the device. The vaporizer heats up the liquid and turns it into a vapor. The nicotine-containing vapor is inhaled, which is why using e-cigarettes is sometimes called “vaping.”

**Youth Marketing?**

Today, many types of advertising for tobacco products are banned, including on TV and the radio. Advertisements for e-cigarettes, however, don’t have the same limitations.

Many e-cigarette ads include images that portray the products as something fun to try. Many of these features are especially appealing to young people. The ads may include celebrities and teen activities, such as going to concerts. They also might highlight that most e-cigarettes have appealing flavors, such as chocolate and candy.

Check out some of the images in this section that may be found in e-cigarette ads. What image of e-cigarettes do these features portray? Why might these messages be dangerous for young people?

**1971:** All television and radio ads for smoking are banned.

**2000s:** Smoking rates among adults and youth decrease.

**2003–2007:** E-cigarettes are introduced worldwide.

**2008:** Health officials begin to ask for restrictions on e-cigarettes and more research into the risks.

**2014:** The FDA proposes a rule to regulate e-cigarettes as tobacco products.
How to Enter:

1. The Challenge: Create an original poster that motivates kids to stay smart about tobacco and keep tobacco-free.

All entries must showcase:
- A creative, artistic interpretation of “The Challenge”
- An inspirational message that calls on young people to stay tobacco-free
- Originality
- Technical skill

Also:
- Posters must be no larger than 11” x 17”.
- Any artistic medium may be used.
- Entries must be submitted by April 20, 2016.
- Only individual entries will be accepted—no group entries.
- No videos will be accepted.

2. With each entry, include the following information:
- Student’s Name
- School Name
- Student’s Grade
- School City and State
- Teacher’s Name

3. Your poster may be submitted in one of two ways:

Mail:
Stay Smart About Tobacco Poster Contest
P.O. Box 713
New York, NY 10013-0713

Online:
Have one of your teachers create a JPG or PDF of your poster. Only your teacher may submit the entry online.

Prizes

Grand Prize: A 4-day/3-night trip to the “Say What!” tobacco prevention youth conference in Montgomery, Texas. This is a fun-filled training and networking opportunity that focuses on taking youth to the next level in tobacco prevention.

Runners-Up: Ten (10) Student Winners will receive a $200 American Express Gift Card.

Teachers Win, Too!

Teachers will be given gift cards and Scholastic gift certificates.

FOR TEACHERS: Visit the contest page at scholastic.com/stay_smart_about_tobacco_contest.

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