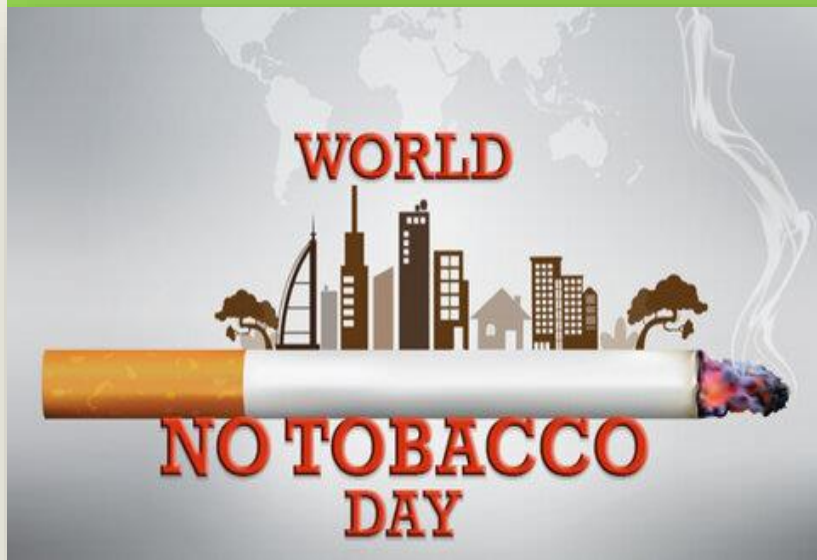


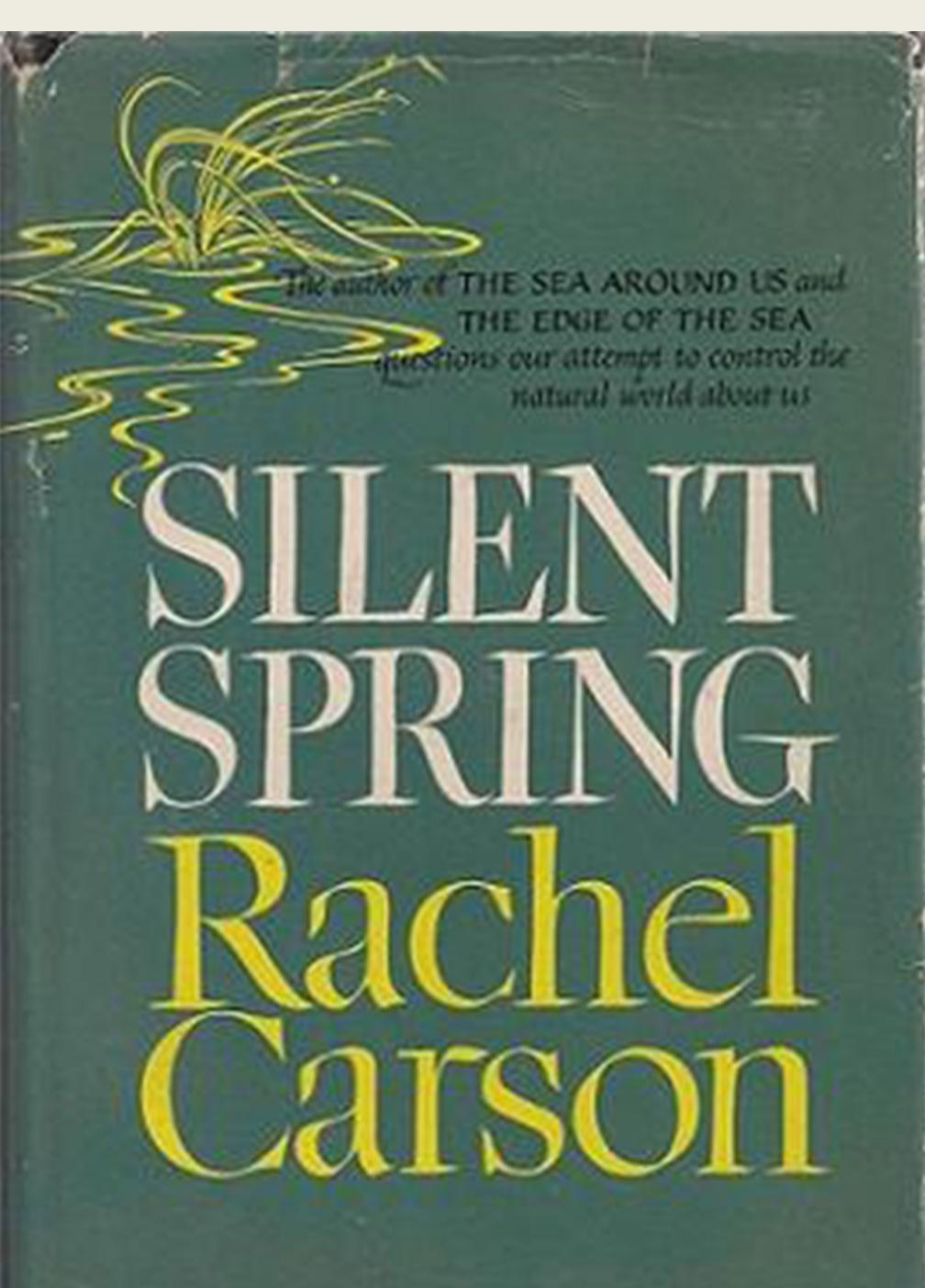
# Tobacco threatens our health



# Tobacco Use is Harmful to Your Health

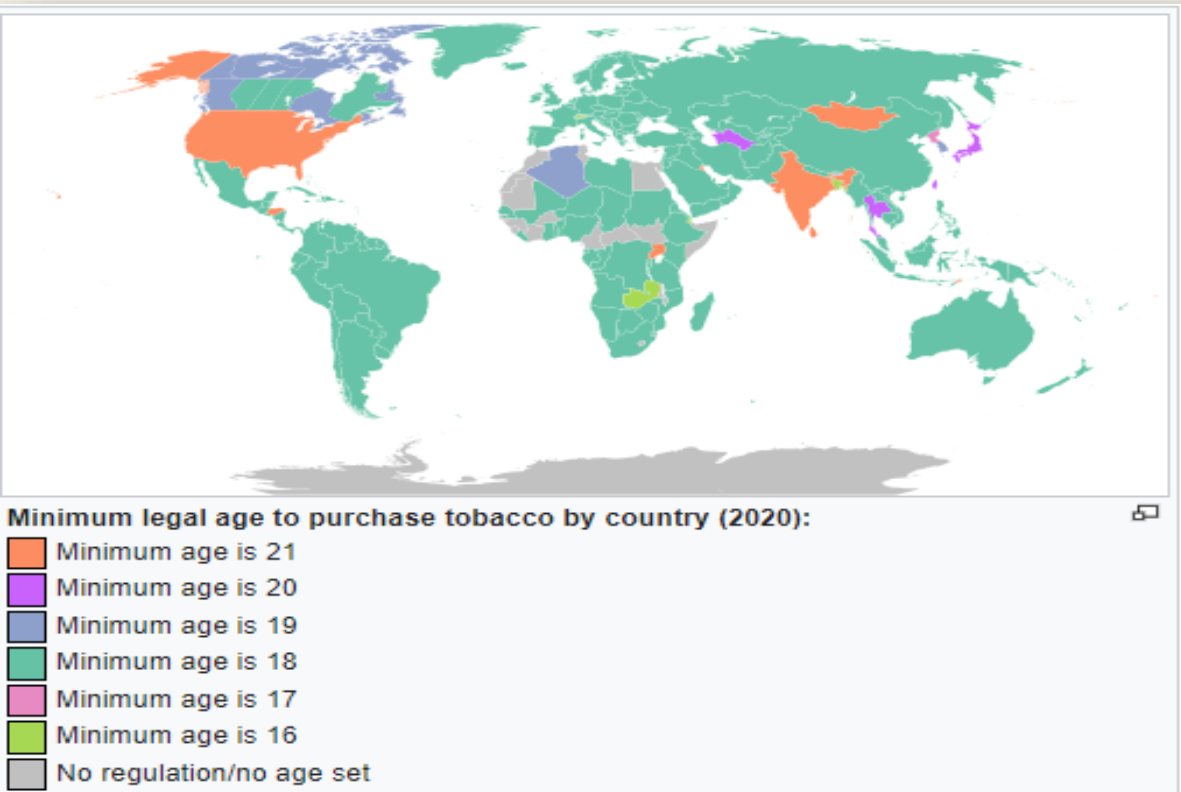
In 1964, the **Surgeon General** issued a report saying that smoking may be hazardous. A year later, tobacco companies were ordered to **add health warnings to cigarette packages**. Since then, the warning labels have become more prominent. Other tobacco products now also carry similar warnings.

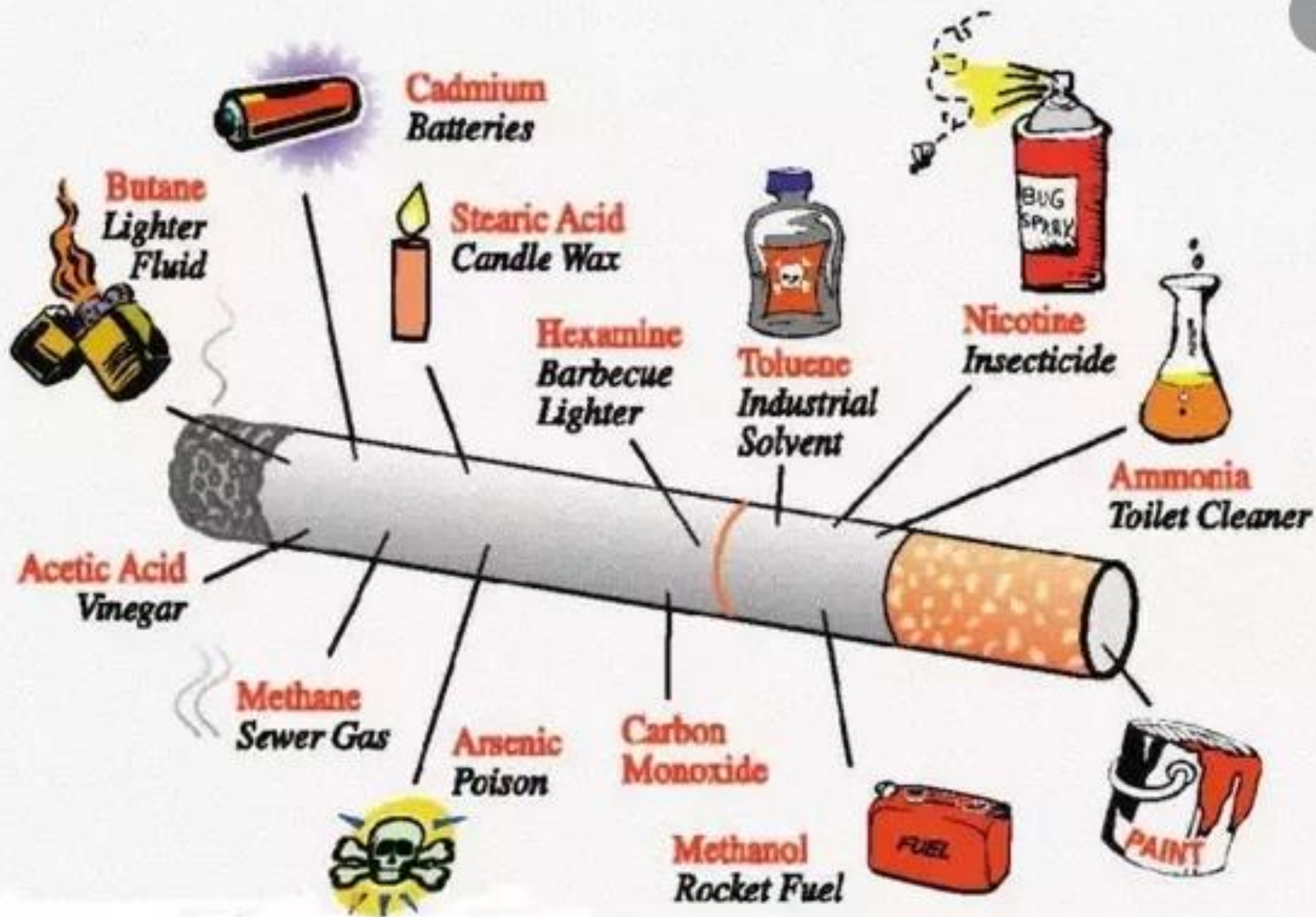




# Tobacco Use is Harmful to Your Health

The chemicals in tobacco and tobacco smoke can cause damage to most of the body's systems. Tobacco use is especially damaging to **teens** because their bodies are **still growing**. The chemicals in tobacco interfere with this process of growth and development. **Tobacco use is also illegal for anyone under the age of 18.**





There are reported to be over 4000 toxic chemicals contained in cigarettes, many of which are exhaled in smoke causing harm to others as well as the smoker

# Tobacco Use is Harmful to Your Health

Tobacco users:

- often cannot run as long or as fast as they did before they started smoking.
- \* **Nicotine** causes an increase in the **heart rate and blood pressure** (even at rest) – and as a consequence, the **heart consumes more oxygen**
- get sick more often and tend to stay sick longer.



Tobacco can also:

- cause disease of the **mouth** and **lungs**.
- damage the rest of the body.
- cause diseases of the **circulatory system**, **respiratory system**, **nervous system**, **digestive system**, and **excretory system**.

# Tobacco Use is Harmful to Your Health

## Respiratory System



Tobacco smoke damages the air sacs in the lungs. This damage can lead to a life-threatening disease that destroys these air sacs. Smokers are also between 12 and 22 times more likely than nonsmokers to develop lung cancer.

## Digestive System



All forms of tobacco increase the risk of cavities and gum disease. Tobacco dulls the taste buds and can cause stomach ulcers. Tobacco use is linked to cancers of the mouth, throat, stomach, esophagus, and pancreas.

## Nervous System



Tobacco use reduces the flow of oxygen to the brain, which can lead to a stroke.

## Excretory System



Smokers have at least twice the risk of developing bladder cancer as nonsmokers. Smokeless tobacco can also put users at risk of developing bladder cancer.

## Circulatory System

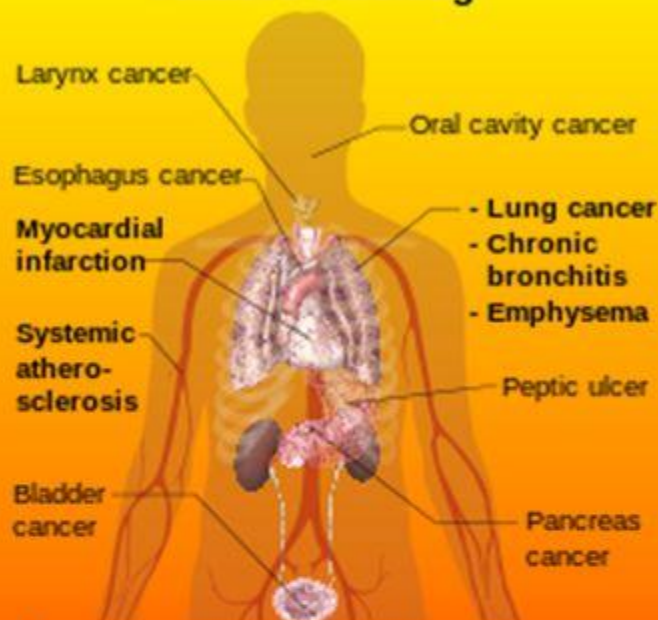


Tobacco use is linked to heart disease. It increases the chances of a heart attack. Smoking also raises blood pressure and heart rate.

# Health Risks

- Cancer
- Heart Disease
- Higher Cholesterol
- Carbon Monoxide Intake – reduces oxygen to blood
- Heart Attacks
- Stroke
- Chest Pains

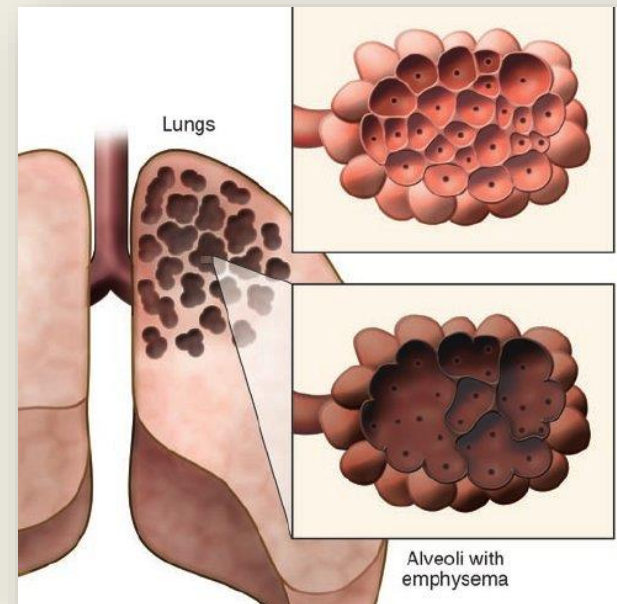
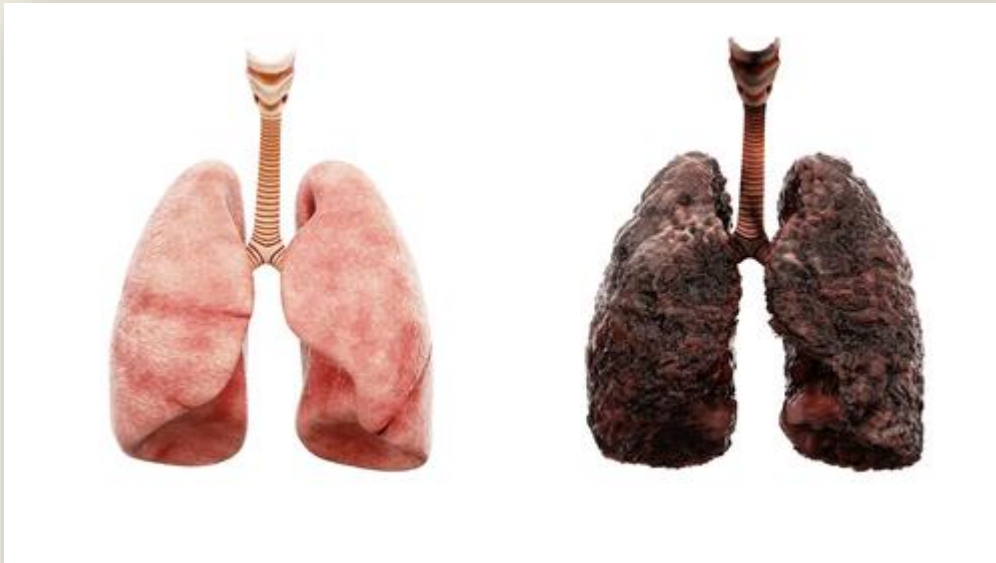
Common adverse effects of  
**Tobacco smoking**





# Respiratory System

Tobacco smoke contains tar, which coats the inside of the lungs. Smoke damages the **alveoli**. When this happens, your lungs are less able to supply oxygen to your body. This damage can cause **emphysema**. When this disease affects a large part of the lungs, it can cause death.

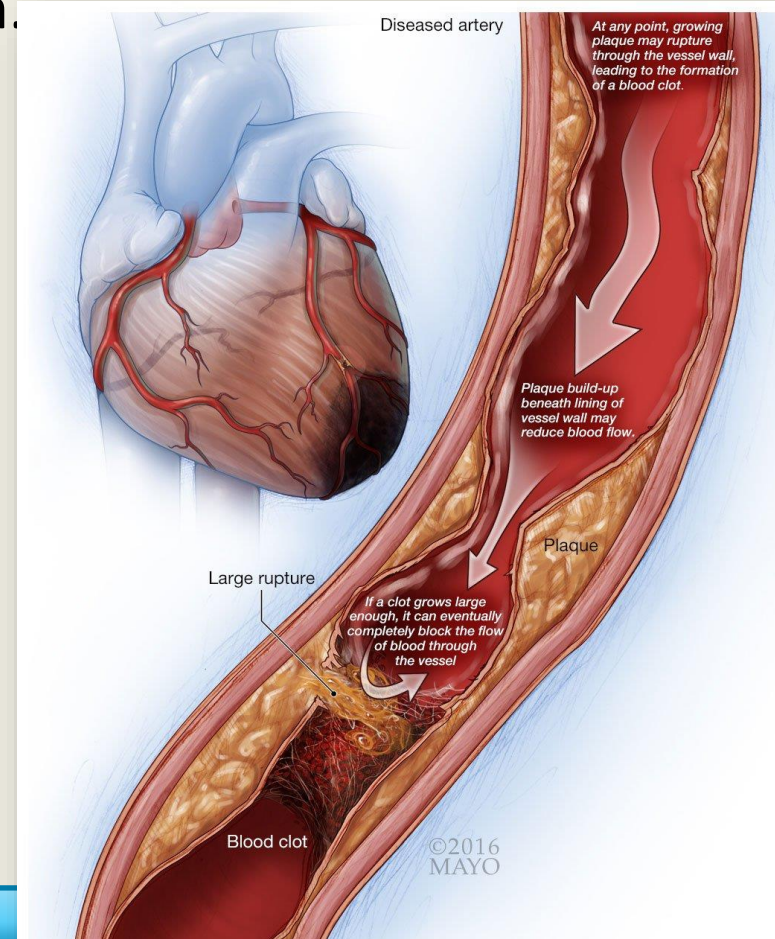


**alveoli** The tiny air sacs in the lungs

**emphysema** A disease that results in the destruction of the alveoli in the lungs

# Circulatory System

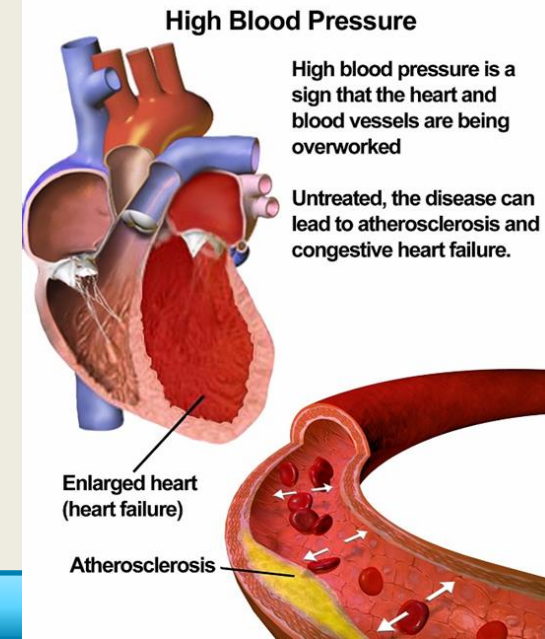
As nicotine enters the circulatory system, blood vessels constrict, or squeeze together. Over time, the blood vessels can harden. When this happens, the blood vessels cannot carry enough oxygen and nutrients to all the parts of the body that need them.



# Circulatory System

Tobacco use also raises blood pressure and heart rate. Blood vessels narrow and harden due to nicotine and other factors. As a result, the heart has to work harder to move blood, oxygen, and nutrients through the body.

When the heart has to work harder and blood vessels are narrower, blood pressure goes up. High blood pressure puts more stress on the heart and blood vessels. This increases the chance of a heart attack, stroke, or heart disease.



# Nervous System

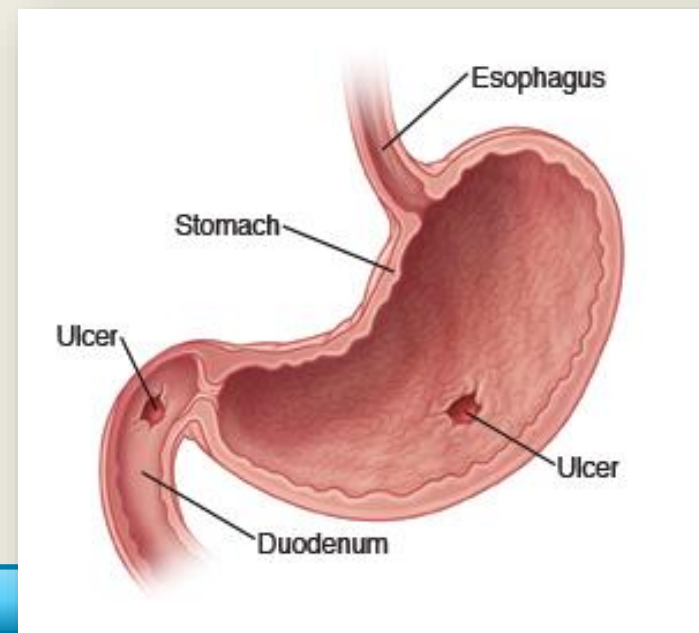
The carbon monoxide in tobacco smoke can cut down the amount of oxygen that the blood can carry to the brain. Nicotine reaches the brain in only a few seconds and attaches to special receptors in brain cells. The brain then adapts by increasing the number of nicotine receptors. Tobacco users then have a strong need for more tobacco.



# Digestive System

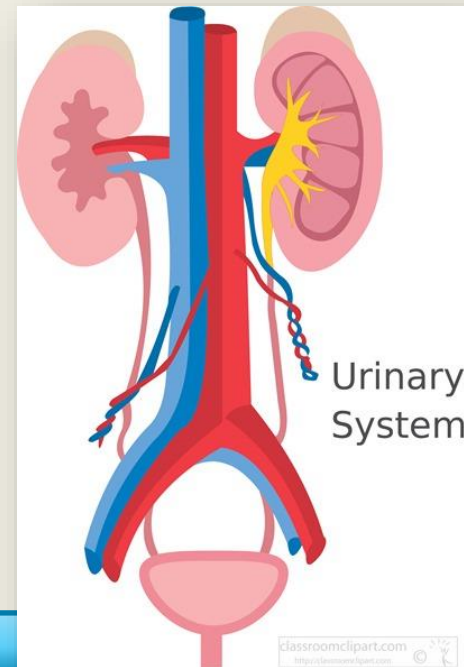
Smoking can damage your digestive system. It can:

- lead to mouth and stomach ulcers, which are painful, open sores.
- harm teeth and gums, causing teeth to yellow. Smokers are more likely to get cavities and gum disease.



## Excretory System

Smokers and tobacco users are much more likely to develop bladder cancer than are nonsmokers. Chemicals in tobacco smoke are absorbed from the lungs and get into the blood. From the blood, the chemicals get into the kidneys and bladder. These chemicals damage the kidneys and the cells that line the inside of the bladder and increase the risk of cancer. Smoking tobacco is also a factor in the development of colorectal cancer, a cancer that affects the colon and the rectum.



# Long-Term Effects of Tobacco Use

- Bronchitis
- Emphysema
- **Chronic obstructive pulmonary disease (COPD)**
- Lung cancer
- Heart disease
- Weakened immune system

**Chronic obstructive pulmonary disease (COPD)** A condition in which passages in the lungs become swollen and irritated, eventually losing their elasticity

# Short-Term Effects of Tobacco Use

- Cravings

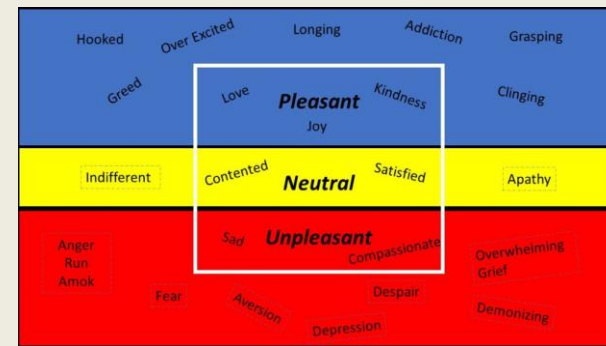


- Breathing and heart rate

- Taste and appetite



- Unpleasant feelings
- Unattractive effects

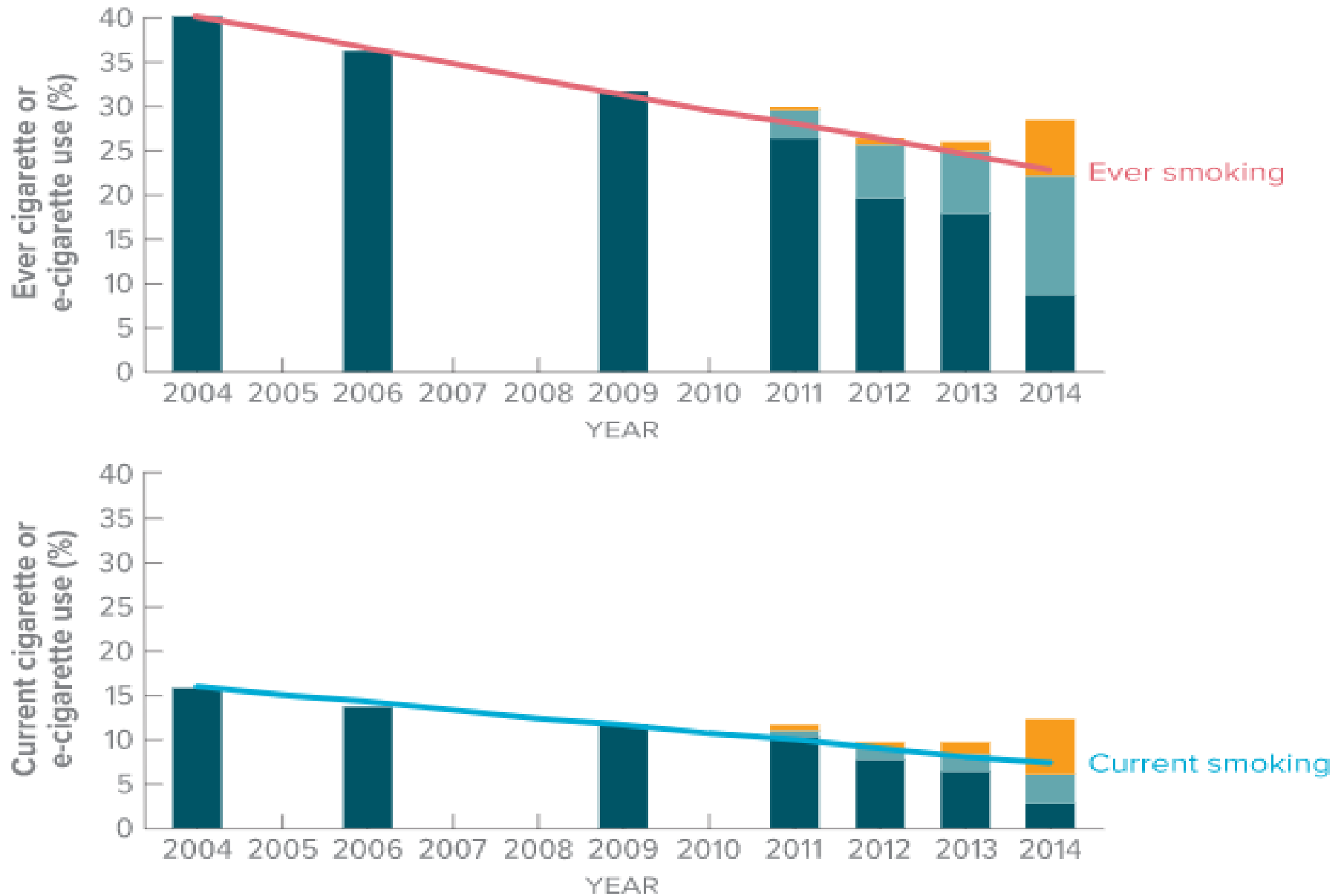




# e-cigarettes



● E-cigarette only    ● Cigarette and e-cigarette    ● Cigarette only



# YOUTH E-CIGARETTE USE IS RISING

## E-CIGARETTES TYPICALLY DELIVER NICOTINE

### YOUTH NICOTINE EXPOSURE CAN:



- CAUSE ADDICTION
- HARM THE DEVELOPING BRAIN

## E-CIGARETTE USE SURGED DURING 2017-2018

IN 2018:



**1** IN **5** HIGH SCHOOL KIDS  
**1** IN **20** MIDDLE SCHOOL KIDS  
CURRENTLY USE  
E-CIGARETTES

## HELP PREVENT YOUTH E-CIGARETTE USE

- **KNOW** THE RISKS OF E-CIGARETTES
- **TALK** TO YOUTH ABOUT THESE DANGERS
- **BE** TOBACCO FREE



# Why are e-cigarettes so dangerous for teens?



**Roughly 70%**  
of individuals who currently  
use tobacco products  
**started with vaping.**

**More than half**  
of Oregon 8th- and 11th-  
graders who use tobacco  
**use flavored tobacco.**



If you know a young person who's ready to quit:  
**Text DITCHJUUL to 88709**

**Oregon**  
**Health**  
Authority



In 2013, more than  
**a quarter million**  
middle and high  
school students  
**never** smoked  
regular cigarettes  
but **had** used  
e-cigarettes...

**3 times**  
as many as 2011!





## E-CIGARETTE ADS

REACH NEARLY

# 4 IN 5

U.S. MIDDLE AND  
HIGH SCHOOL  
STUDENTS

More than 20 million youth saw  
e-cigarette ads in 2016.

### PERCENT OF STUDENTS EXPOSED TO E-CIGARETTE ADS

2014	68.9
2015	73.0
2016	78.2

### YOUTH EXPOSURE TO E-CIGARETTE ADS, 2016



RETAIL STORES

**68.0%** 17.7 MILLION



INTERNET

**40.6%** 10.6 MILLION



TELEVISION

**37.7%** 9.7 MILLION



NEWSPAPERS & MAGAZINES

**23.9%** 6.2 MILLION

Efforts to reduce youth exposure to e-cigarette ads are important to prevent and reduce youth use of these products.

Source: National Youth Tobacco Survey



# E-CIGARETTES AND PREGNANCY

## E-CIGARETTE USE DURING PREGNANCY IS UNSAFE

- E-cigarettes contain nicotine
- Nicotine can damage a baby's developing brain & lungs

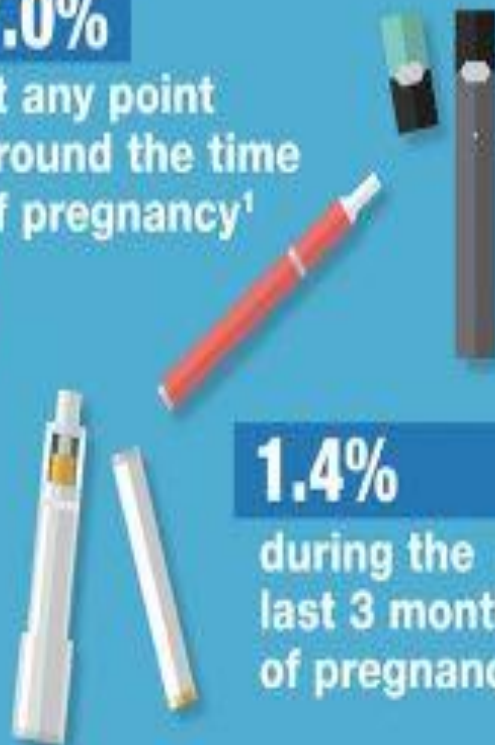
## WOMEN REPORTED USING E-CIGARETTES

**7.0%**

at any point around the time of pregnancy<sup>1</sup>

**1.4%**

during the last 3 months of pregnancy



## TAKE ACTION

- Know the risks
- Talk to your healthcare provider about quitting
- Be tobacco-free



<sup>1</sup> Questions asked about use in the 3 months before pregnancy, the last 3 months of pregnancy, or 2-6 months after delivery. Data from the 2015 Oklahoma and Texas Pregnancy Risk Assessment Monitoring System (PRAMS). Kapaya et. al. MMWR 2019. [bit.ly/CDCVA\\_23](http://bit.ly/CDCVA_23)

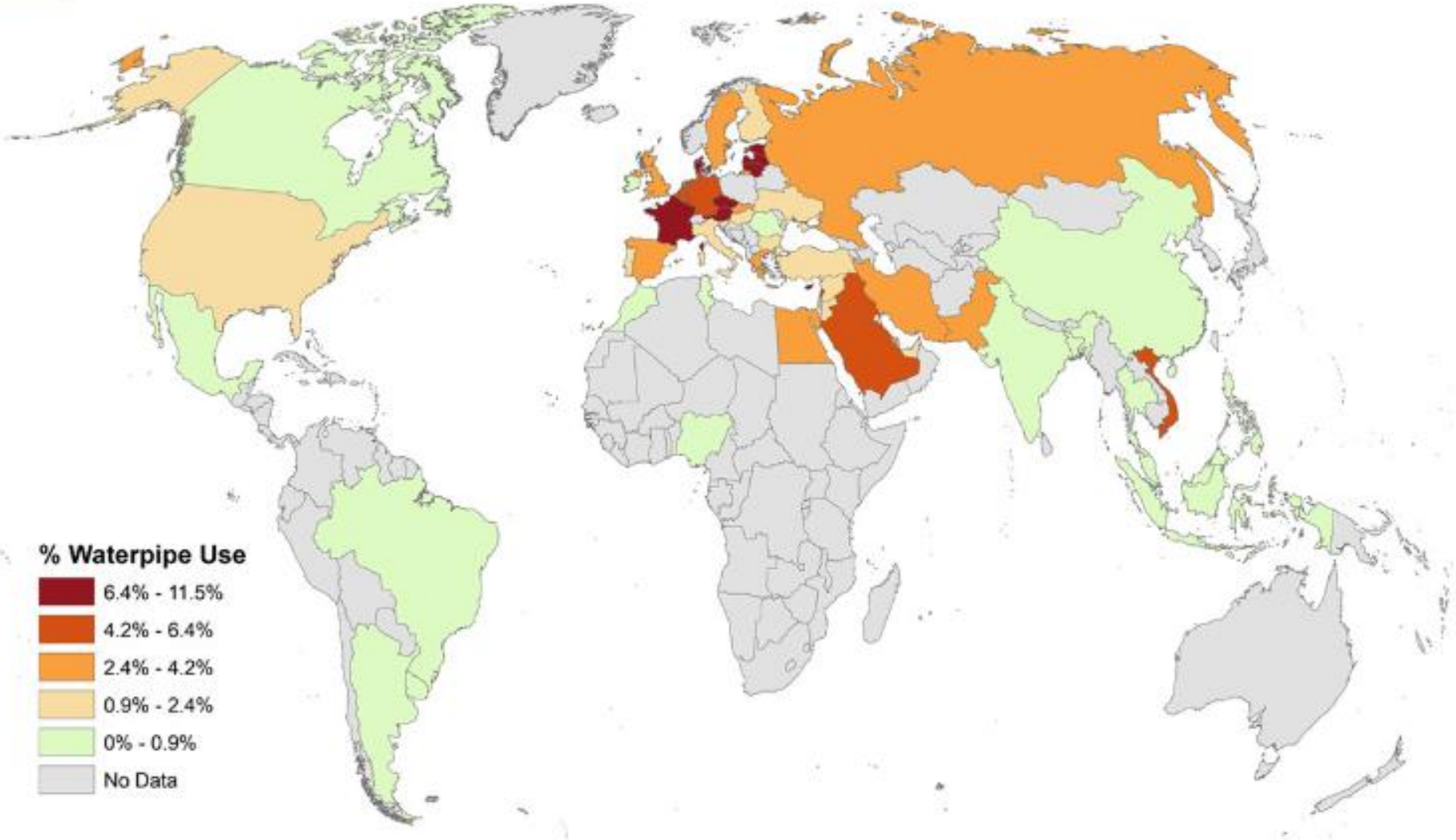
# hookah

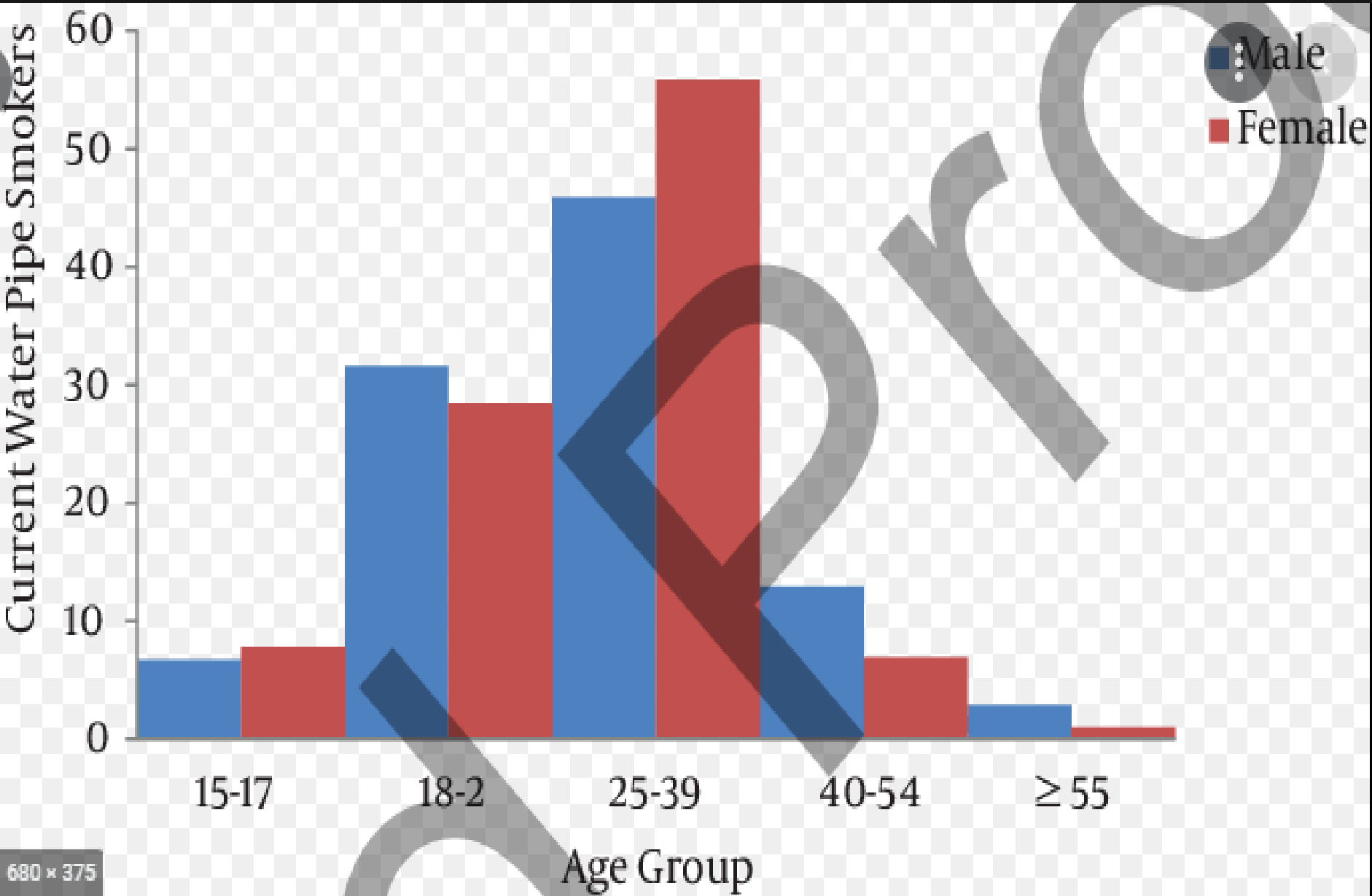




# Global prevalence of adult water pipe smoking 2019

[Source](#)





680 × 375

ResearchGate

Water Pipe Hookah Smokers by Age Group in Iran | Download Scientific Diagram

Visit



## Prevalence of Hookah Smoking among University Students in Iran: A Meta-Analysis of Observational Studies

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(Received 21 May 2019; accepted 24 Jul 2019)

### Abstract

**Background:** The rise in popularity of waterpipe smoking among younger people cause increase its deleterious effects on health in recent years. The aim of this study was to estimate the pooled prevalence of water-pipe smoking in university students in Iran.

**Methods:** We performed the literature search from 1946 to January 21, 2019, in several international and national databases such as Medline/PubMed, Web of Science, Scopus, Google Scholar, Magiran, Iranmedex, and IranPsych. To investigate the between-study heterogeneity we used the chi-squared test and I<sup>2</sup> index. We used a random-effects model to estimate the pooled prevalence of water-pipe smoking. The potential source of heterogeneity was assessed by subgroup analysis and meta-regression.

**Results:** According to the eligibility criteria, we included 37 relevant studies in our meta-analysis. The pooled prevalence of lifetime water-pipe smoking was 25% (95% CI: 22-29) and in male and female subgroups was 37% (95%CI: 30-45), 17% (95%CI: 15-19) respectively. The pooled prevalence of water-pipe smoking in last year was 21% (95%CI: 16-25) and in last month was 8% (95%CI: 5-11). Results of meta-regression analysis showed that there was not any significant association between suspected variables and the prevalence of water-pipe smoking.

**Conclusion:** The higher prevalence rate of water pipe smoking among university students indicates the emergency need for planning preventive program.

**Keywords:** Prevalence; Hookah; College students; Iran; Meta-analysis

### Introduction

Tobacco smoking is one of the preventable causes of morbidity and mortality in the world that contributes to over 5 million deaths every year

(1). Tobacco-related deaths will rise from 6.4 million in 2015 to 8.3 million in 2030 (2). In different countries, tobacco is used in different forms.

- The pooled prevalence of lifetime water-pipe smoking was 25% (95% CI: 22-29) and in male and female subgroups was 37% (95%CI: 30-45), 17% (95%CI: 15-19) respectively

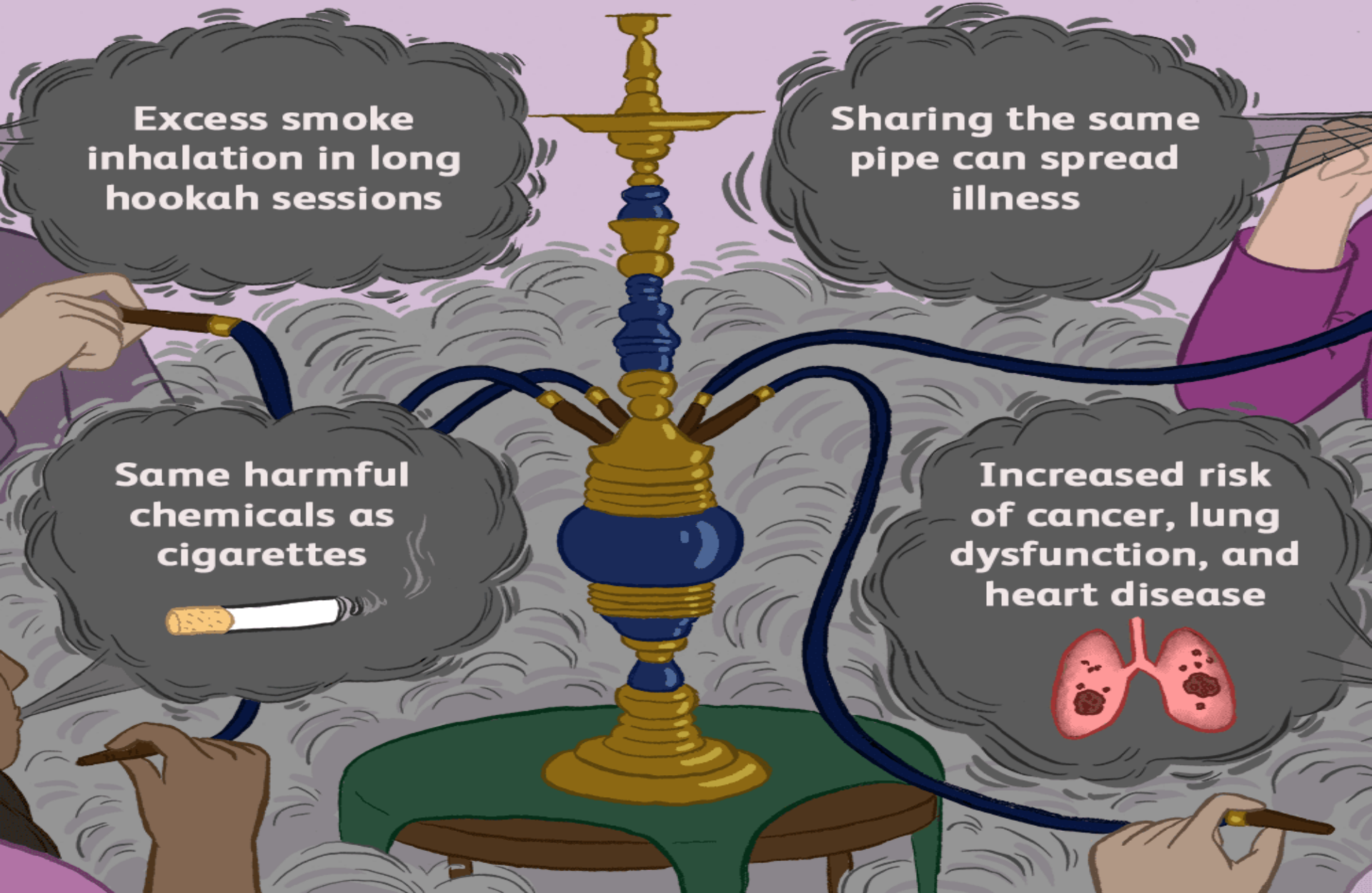
# Health Risks From Hookah

**Excess smoke inhalation in long hookah sessions**

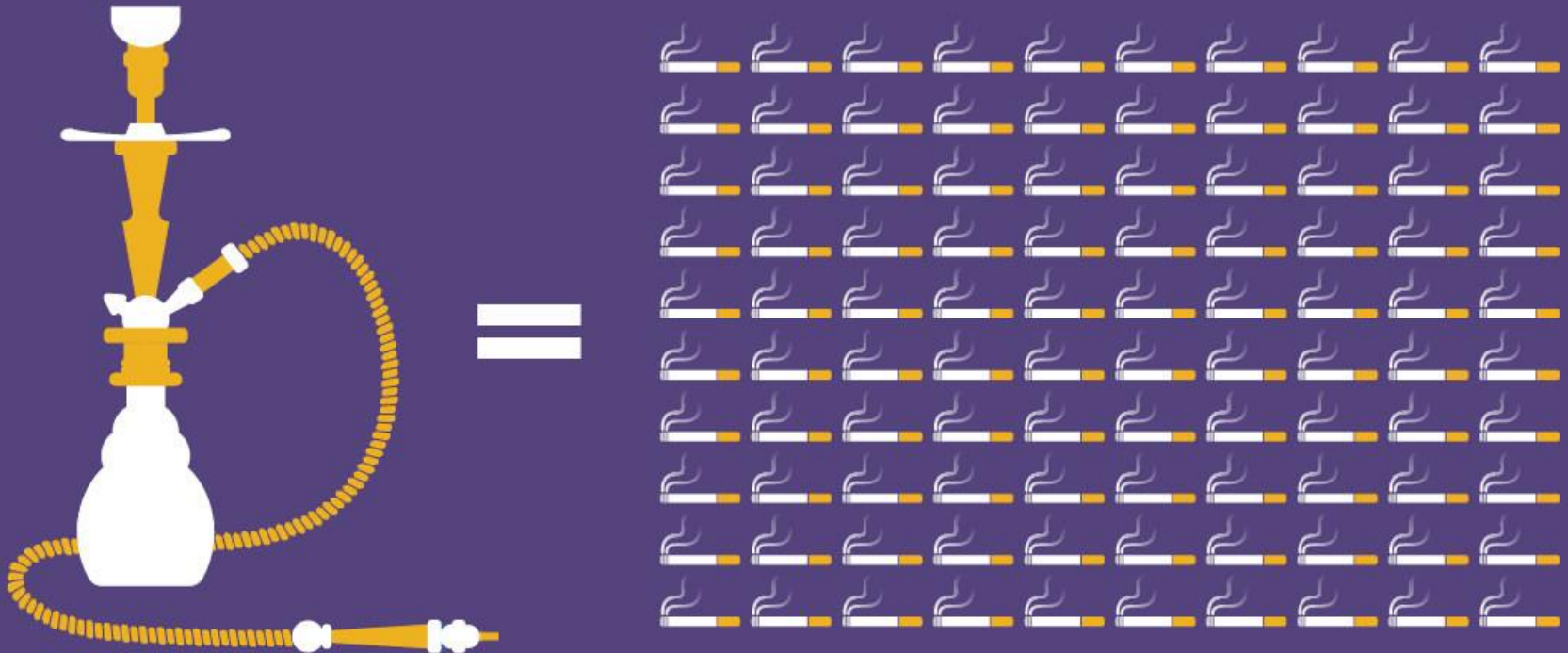
**Sharing the same pipe can spread illness**

**Same harmful chemicals as cigarettes**

**Increased risk of cancer, lung dysfunction, and heart disease**



# Smoking a hookah is the equivalent of smoking **100 cigarettes**



Source: World Health Organization (2005); mentioned in the October 2015 issue of *The Journal of the American Dental Association*

Learn more at [MouthHealthy.org](http://MouthHealthy.org)





# Second-hand smoking



# SECONDHAND SMOKE

Secondhand smoke is known to cause **cancer** in humans and animals.

# 41,000

Secondhand smoke causes the premature death of 41,000 adults and more than 400 infants each year.

Secondhand smoke contains more than **7,000 chemical compounds**.



Some known carcinogens found in secondhand smoke:

**arsenic**  
(used in pesticides)

**lead**  
(formerly found in paint)

**polonium-210**  
(a radioactive element)

**formaldehyde**  
(used to embalm the dead)

**benzene**  
(a gasoline additive)



**Clean indoor air laws** reduce nonsmokers' secondhand smoke exposure by 28%.

Lower-income communities are less likely to be protected by smoke-free laws.



Blue-collar workers are more likely to be exposed to secondhand smoke at work.

# 42%

of Americans are not protected by smoke-free laws. Only 28 states and territories have enacted comprehensive smoke-free laws.

# 98.3%

of youth who live with a smoker have been exposed to secondhand smoke.



Dogs and cats are twice as likely to develop nasal cancer if their owner smokes, as compared to animals in households without cigarette smoking.





**Middle and high school students who have never used tobacco are exposed to secondhand smoke:**



**14.7%**  
are exposed inside  
a vehicle



**15.5%**  
are exposed at home



**35.2%**  
are exposed in outdoor or  
indoor public areas

# TOBACCO USE AND SECONDHAND SMOKE EXPOSURE IS HIGH IN MULTIUNIT HOUSING



• About **80 million (1 in 4) people in the US** live in multiunit housing, such as apartments.



• Many who live in public housing are especially affected by secondhand smoke, **including children, the elderly, and people with disabilities.**



• About **8 in 10 multiunit housing residents** choose to make their own homes **smoke-free.**

• About **20 percent of adults in multiunit housing use combustible tobacco products**, which are a source of secondhand smoke exposure.



Among multiunit housing residents with smoke-free home rules, **34 percent** report that secondhand smoke involuntarily enters their homes from somewhere else in or around the building.

## There is **no safe level** of **secondhand smoke exposure**



Secondhand smoke can **travel within multiunit housing** and common areas through **doorways, cracks in walls, electrical lines, ventilation systems and plumbing.**

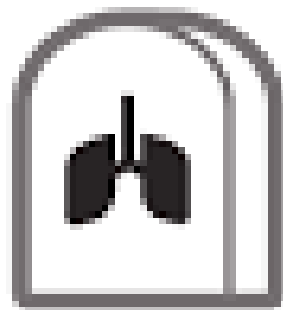


Opening windows and using fans **does not completely remove secondhand smoke.**



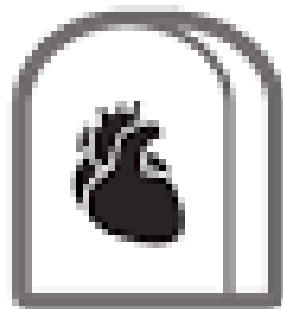
Heating, air conditioning and ventilation systems **cannot eliminate exposure to secondhand smoke.**

In nonsmokers, secondhand smoke causes



approximately

**7,300** lung cancer  
deaths per year

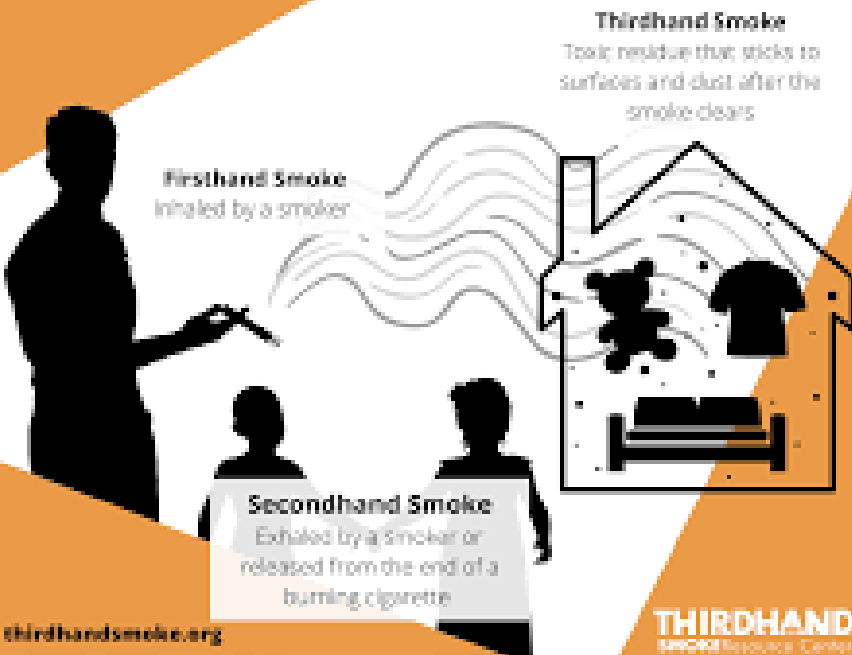


and nearly

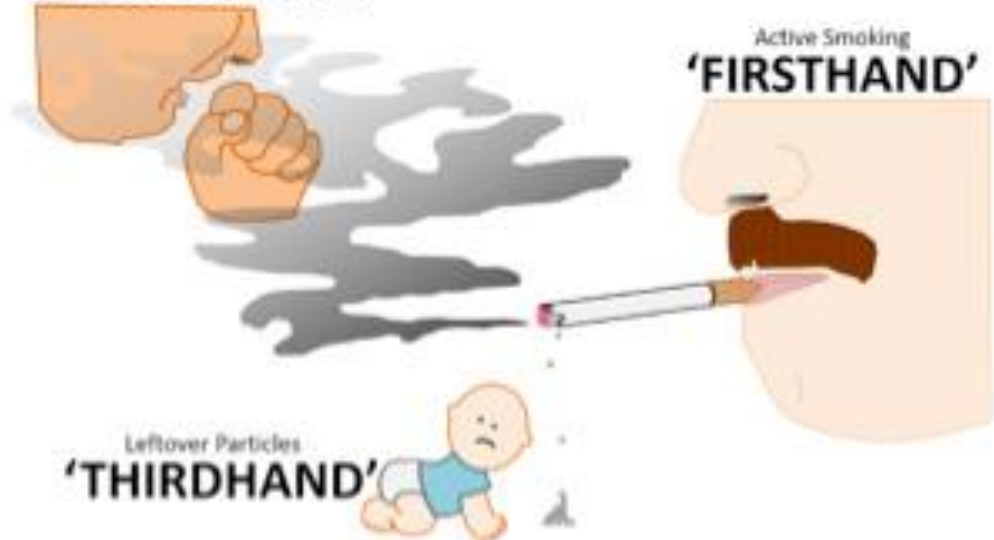
**34,000** heart disease  
deaths per year

# Thirdhand smoke

# What is Thirdhand Smoke?



Passive Smoking  
**'SECONDHAND'**



# How can infants be exposed to thirdhand smoke chemicals?



During pregnancy



Transferred by  
people



Contaminated  
surfaces



Breast milk and  
infant food

Starting during pregnancy, toxic tobacco smoke chemicals can cross the placenta and pass from the mother to the developing infant. After birth, breast milk also can transfer tobacco smoke chemicals from mother to child. Finally, people may carry toxic tobacco smoke residue (also known as thirdhand smoke) on their skin, hair, and clothes, which the newborn child can breathe in or swallow.

Source: Northrup et al. (2021). Thirdhand smoke associations with the gut microbiomes of infants admitted to a neonatal intensive care unit: An observational study. *Environmental Research*, 197, 111180. <https://doi.org/10.1016/j.envres.2021.111180>

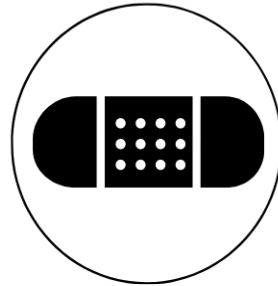
# Chemicals in Thirdhand Smoke Can:



**Increase Risk of Cancer**



**Damage DNA**



**Reduce Ability to Heal Injuries**



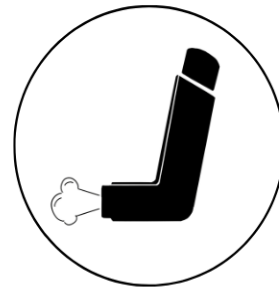
**Lower Ability to Fight Infection**



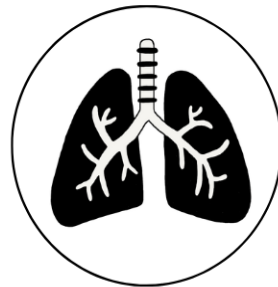
**Damage Cells**



**Cause Earaches**



**Trigger Asthma Attacks**



**Worsen Respiratory Illness**



**Increase Risk of Disease**



**Cause Headaches**

