

Unit 4

Tobacco

“If Our Body Is A
Temple, Then Why Do
We Treat It Like
Trash?”

Bell Ringer # 1

“Tobacco Use in Teens Article”

- Read Article on page 135 in the blue book.
- Answer the Questions to the Article on WS pg 187 in your health booklet.

<http://www.youtube.com/watch?v=Z6LC5FYE85k>

****Discuss as a class your thoughts and ideas about the video clip.**

Tobacco

- Tobacco comes in many forms such as; Cigarettes, cigars, pipes, Hookah and Chewing Tobacco.
- Smokeless tobacco is chewed or snorted.
- Tobacco is a **STIMULANT.**



Hookah

- Hookahs are water pipes that are used to smoke tobacco. They come in a variety of flavors; mint, apple, chocolate & cherry.
- Hookah smoking is typically practiced in groups, with the same mouthpiece passed from person to person which can cause infectious diseases to be transmitted.



Hookah

- Water pipe smoking delivers the addictive drug **nicotine** and is as toxic as cigarette smoke.
- The charcoal used to heat tobacco in the hookah increases the health risks by producing high levels of carbon monoxide, metals, and cancer-causing chemicals. Causing health risks such as; lung, bladder, stomach and oral cancers. It can also cause clogged arteries and heart disease.
- Babies born to hookah smokers may have lower birth weights and are at risk for respiratory diseases.
- Secondhand smoke from hookahs poses a serious risk for nonsmokers, especially from the heat source (charcoal) used in hookah.
- [Effects of Hookah](#)

Tobacco

- Cigarette Smoking is the leading cause of **avoidable** death in the United States, accounting for more deaths than...

- AIDS
- Car Crashes
- Suicides
- Homicides
- Fires
- Illegal Drugs Combined.

Tobacco



- Cigarettes Kill **4 million** people a year.
- That equals out to **one death every 8 seconds!**

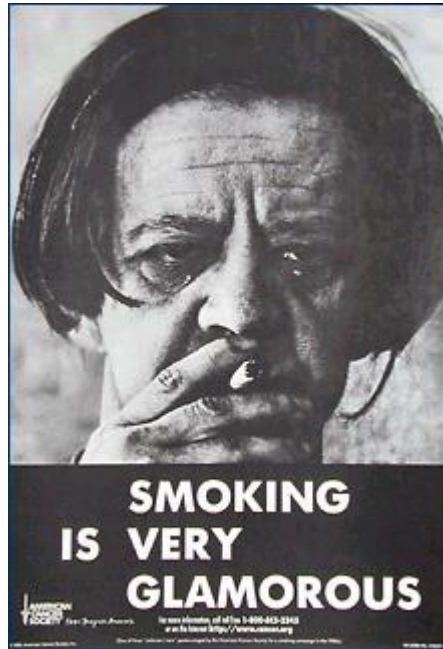
Why do people smoke?

- ◎ **Peer Pressure** is the main reason why teenagers start to smoke.
- ◎ To fit in, to look cool, to feel older and to try something new. This all contributes to teens taking their first puff of a cigarette.

Why do people continue to Smoke?

- Stimulant
- Relaxation feeling
- Stress
- Habit
- Social-bonding
- Family and friends
- Nicotine addiction
- [Brian Curtiss Story](#)

Tobacco



- Teenagers fail to realize that health risks begin from the moment the cigarette smoke from the 1st cigarette enters the body.

Tobacco



- Teenagers think they can drop the habit at will, whenever they want, but they don't realize, it isn't a habit...It's an **ADDICTION**

Tobacco

- **ADDICTION** means a physiological or psychological dependence on a substance or activity.

Tobacco

- ◎ People who started smoking when they were teenagers are still smoking today-not because they want to, but because they are addicted.
- ◎ <http://www.youtube.com/watch?v=yd46Hs7pTow>

What's in a Cigarette???

- 4,000 Chemicals in a cigarette including...
 - 43 Known Carcinogens
 - **Carcinogen:** is a chemical that is known to cause cancer. Most carcinogens in tobacco smoke are found in tar.
 - **Tar:** is a sticky, thick fluid that is formed when tobacco is burned.
 - 400 toxins
 - Nicotine, tar, carbon monoxide, ammonia, cyanide and arsenic
- It takes **20 seconds** for nicotine to reach your brain

What Is In Cigarettes?



nvtech.com

- Cigarettes contain many of the same chemicals that make paint, toilet cleaner, and car antifreeze.

Daily Review

1. What category of drug does tobacco fall under?

Stimulant

2. _____ is the main reason why teenagers start to smoke

Peer Pressure

3. _____ is physiological or psychological dependence on a substance or activity.

Addiction

4. _____ is a chemical that is known to cause cancer.

Carcinogen

5. _____ is a sticky, thick fluid that is formed when tobacco is burned.

Tar

6. Name the addictive drug in cigarettes.

Nicotine

7. _____ are water pipes that are used to smoke tobacco.

Hookahs

Bell Ringer #2

- Ask students to write out on the board long term and short term effects of smoking
- Discuss the results

Short-Term Effects of Smoking

- Cigarettes:

- Shortness of breath

- Loss of endurance
- Stained Teeth
- Bad Breath
- Smelly Clothes
- Risk of Addiction
- Expensive:

- 1pk/wk $\$7 \times 52 = \364

- 3pks/wk
 $\$21 \times 52 = \$1,092$

- 1pk/day
 $\$49 \times 52 = \$2,548$

- Chewing Tobacco:

- Stained Teeth
- Bad Breath
- Risk of Addiction
- Increase Heart Rate and Blood Pressure

Long-Term Effects Of Smoking

- The major long-term effects that are associated with cigarette smoking are:
 - Chronic Bronchitis
 - Emphysema
 - Lung Cancer

Long-term Effects Of Smoking

1. Chronic Bronchitis:

- Is a respiratory disease, which causes inflammation of the lining of the bronchial tubes in your lungs.
- Your cilia becomes useless so tar from cigarette smoke builds up.
- Which results in chronic coughing and excessive mucus secretion.
- **Cilia:** is tiny hair-like structures that line the airways in the lungs to sweep out debris, dust and excess mucus out the airway.
- <http://www.youtube.com/watch?v=2wF1csksp-Q>

Long-term Effects Of Smoking

- **Emphysema:**
- Is the destruction of tiny air sacs (alveoli) in the lungs. The alveoli turn into large, irregular pockets with holes in them. The surface area of the lung is gradually reduced, resulting in less oxygen entering the blood stream. The small elastic fibers that hold open the small airways leading to the alveoli also become destroyed. When the individual breathes out they collapse causing the individual to have problems exhaling air.

The Effects of Smoking

- So, instead of using 5 % energy to breath a person has to use 80 % to take a breath.
- **Straw Activity:** Hand out a straw to each student then have students perform activity in the room, such as walking, jumping jacks or jogging in place while breathing through a straw with their nose pinched. Ask students to describe any difficulty they might have had.
- <http://www.youtube.com/watch?v=eIUeR5NRi6c>
- <http://www.youtube.com/watch?v=SwYEFu-GKP4>

The Effects Of Smoking

○Lung Cancer

- Is the leading cause of cancer deaths in the US, among men & women.
- Lung cancer** is a disease characterized by uncontrolled cell growth in tissues of the lung.
- If left untreated, this growth can spread beyond the lung into nearby tissue or other vital parts of the body.

The Effects Of Smoking

- The most common cause of lung cancer is long-term exposure to tobacco smoke, which causes 80–90% of lung cancers. Nonsmokers account for 10–15% of lung cancers.

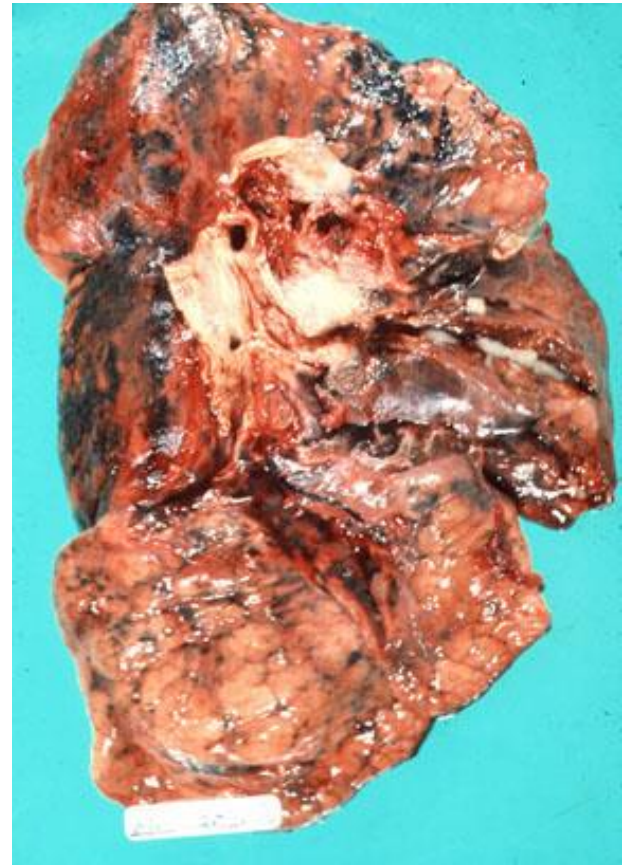
The Effects Of Smoking

- A Normal Healthy Lung



The Effects Of Smoking

- A Smokers Lung...
- <http://www.youtube.com/watch?v=dd2jYSTi9NM>



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Normal bronchi



Bronchitis



ADAM.

Emphysema

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DAILY REVIEW

1. _____ is a respiratory disease, which causes inflammation of the lining of the bronchial tubes in your lungs.

Chronic Bronchitis

2. _____ is tiny hair-like structures that line the airways in the lungs to sweep out debris, dust and excess mucus out the airway.

Cilia

3. _____ is the destruction of tiny air sacs (alveoli) in the lungs.

Emphysema

4. _____ is a disease characterized by uncontrolled cell growth in tissues of the lung

Lung Cancer

Long Term Effects of Chewing Tobacco

- Erodes Teeth and Gums
- Jaw, Tongue and Lip Damage
 - Rashes
 - Difficulty moving jaw
- Oral Cancer
- Lung Cancer

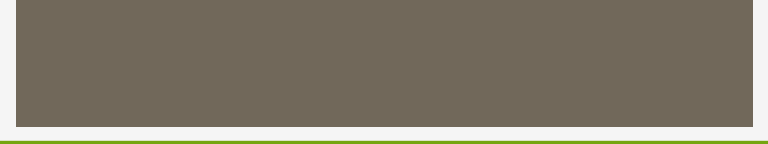
- 90% of this comes from chewing or smoking

Chewing Tobacco video clip: (The Sean Marsee Story)

<https://www.youtube.com/watch?v=nDFNqOuZ3II>

[Sean Marsee Story](#)

[Sean Marsee story by TobaccoFree](#)



Eroded Teeth and Gums



Tongue Damage



Oral Cancer

Second Hand Smoke

- Mainstream smoke is the smoke that a smoker blows off.
- Side Stream smoke is the smoke that comes from the burning cigarette.
- Second Hand Smoke can cause lung cancer and the **same** problems that a smoker would get.

The Effects Of Smoking

- ◉ When Pregnant women smoke their babies are affected to.
- ◉ Effects range from low birth weight, deformations, lung cancer and death.



Your Rights

- ⦿ You have the right to express your feeling that people do not smoke around you.
- ⦿ By doing so you protect the air you breathe and the air of those around you.
- ⦿ A smoke-free environment benefits your health and the health of others.

Benefits Of A Non Smoker

- ⦿ Ability to take a deep breath.
- ⦿ Ability to taste food and have a full sense of smell.
- ⦿ Ability to participate in physical activity without being short of breath.



Legal Age for Smoking/Vaping

- The legal age to use tobacco is **21** in the State of Michigan

○ **21**



VAPING ACTIVITY

1. Using your own words, define the terms: VAPOR, GAS, AEROSOL
2. Using laptop, phone, or dictionaries, find the exact definition for each term
3. List examples of each term
4. Review as a class

Definitions



GAS: a substance with indefinite expansion. When you let a gas out of its bottle, it will usually keep spreading out until it's completely mixed with the air.



VAPOR: it can mean the same as gas, but it may also be used to describe a visible exhalation, such as steam or fog. "Vapor" isn't as precise a term as "gas" or "aerosol."

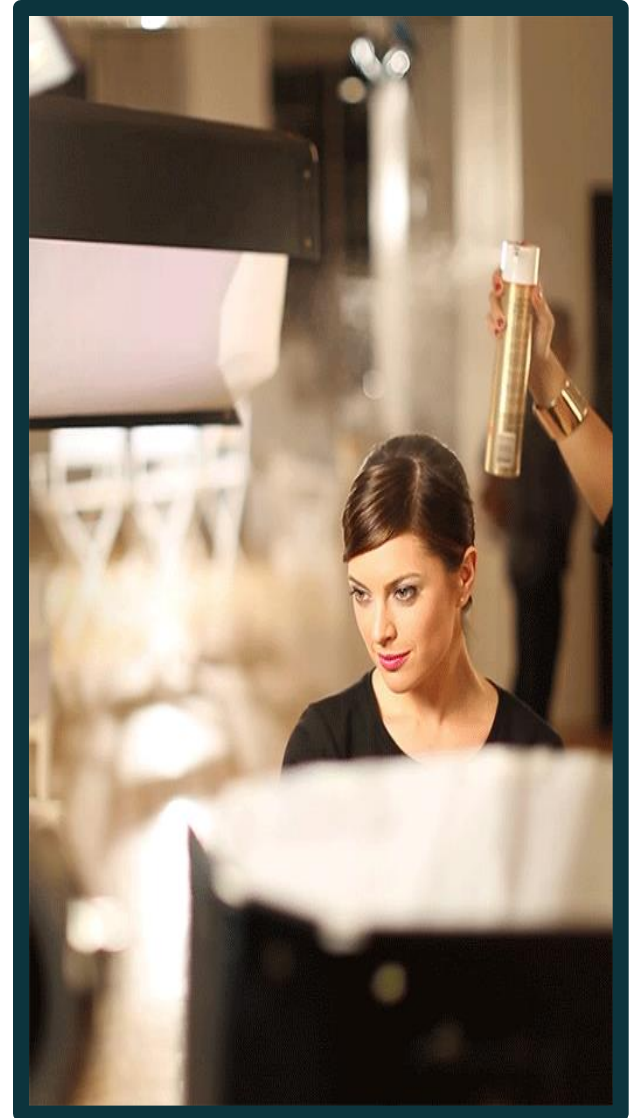


AEROSOL: a mixture of liquid particles suspended in a gas. Instead of just mixing with the air like a pure gas, aerosols can leave drops behind.

It's an Aerosol, Not a Vapor



Vapor or Aerosol





Why does it matter that vaping creates aerosols?

<ul style="list-style-type: none"> • Propylene glycol • Glycerin • Flavorings (many) • Nicotine • NNN • NNK • NAB • NAT • Ethylbenzene • Benzene • Xylene • Toluene • Acetaldehyde • Formaldehyde • Naphthalene • Styrene • Benzo(b)fluoranthene 	<ul style="list-style-type: none"> • Chlorobenzene • Crotonaldehyde • Propionaldehyde • Benzaldehyde • Valeric acid • Hexanal • Fluorine • Anthracene • Pyrene • Acenaphthylene • Acenaphthene • Fluoranthene • Benz(a)anthracene • Chrysene • Retene • Benzo(a)pyrene • Indeno(1,2,3-cd)pyrene 	<ul style="list-style-type: none"> • Benzo(ghi)perylene • Acetone • Acrolein • Silver • Nickel • Tin • Sodium • Strontium • Barium • Aluminum • Chromium • Boron • Copper • Selenium • Arsenic • Nitrosamines, • Polycyclic aromatic hydrocarbons 	<ul style="list-style-type: none"> • Cadmium • Silicon • Lithium • Lead • Magnesium • Manganese • Potassium • Titanium • Zinc • Zirconium • Calcium • Iron • Sulfur • Vanadium • Cobalt • Rubidium
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What Chemicals are in the Vapors?

<ul style="list-style-type: none"> • Propylene glycol • Glycerin • Flavorings (many) • Nicotine • NNN • NNK • NAB • NAT • Ethylbenzene • Benzene • Xylene • Toluene • Acetaldehyde • Formaldehyde • Naphthalene • Styrene • Benzo(b)fluoranthene 	<ul style="list-style-type: none"> • Chlorobenzene • Crotonaldehyde • Propionaldehyde • Benzaldehyde • Valeric acid • Hexanal • Fluorine • Anthracene • Fluoranthene • Benz(a)anthracene • Chrysene • Retene • Benzo(a)pyrene • Indeno(1,2,3-cd)pyrene 	<ul style="list-style-type: none"> • Benzo(ghi)perylene • Acetone • Acrolein • Silver • Nickel • Tin • Sodium • Strontium • Boron • Copper • Selenium • Arsenic • Nitrosamines, • Polycyclic aromatic hydrocarbons 	<ul style="list-style-type: none"> • Cadmium • Silicon • Lithium • Lead • Magnesium • Manganese • Potassium • Titanium • Zinc • Zirconium • Calcium • Iron • Sulfur • Vanadium • Cobalt • Rubidium
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**All of these have been found
in vape aerosol**

**Compounds in yellow are from FDA 2012,
Harmful and Potentially Harmful
Substances – Established List**

Where Else Can You Find These Chemicals?

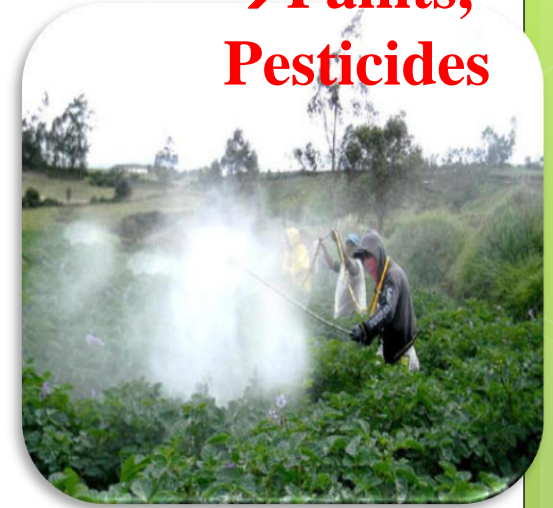
Propylene glycol → Antifreeze



Acetone → Nail Polish Remover



Ethylbenzene → Paints, Pesticides



Formaldehyde → Embalming



Nicotine → Cigar



Rubidium → Fire

Known Consequences

- Although some teens believe vaping to be harmless, we know today that vaping negatively impacts the body's **immune** system.
- Vaping may be especially harmful to teens because the **brain** is still developing and is therefore prone to addiction.
-

Long Term Effects of Vaping

- **Are Unknown**
- The vaping products have not been around long enough yet to determine the long term effects.

Flavors



#1 Flavor Selection with 19 Flavors!



What's Your Taste?

Choose E-cigarette Cartridge From 7 Delicious Flavors by XEO E-cigarettes!!

World's Most Powerful E-cigarette Available in 7 Flavors!!

Tastes your Mouth Crave For, Which Flavor you Smoke?

XEO

Chicken Waffles

The Vapor God Inc.

Variety

Cytotoxic Flavors

**Cinnamon
flavors may
contain:**

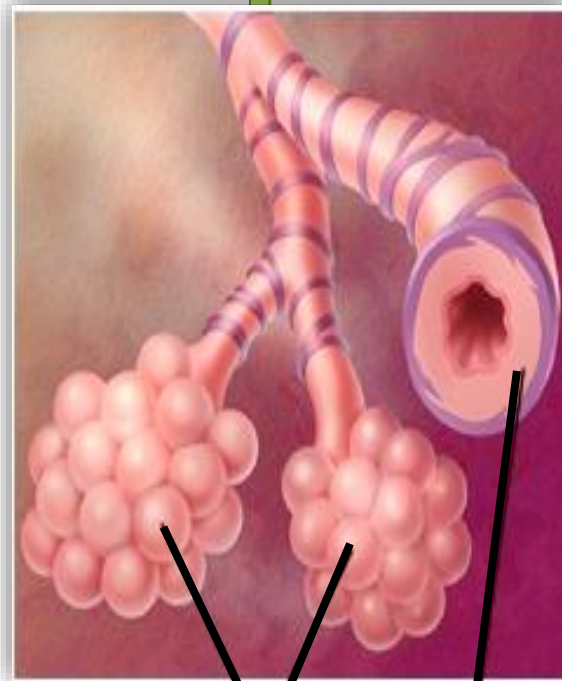
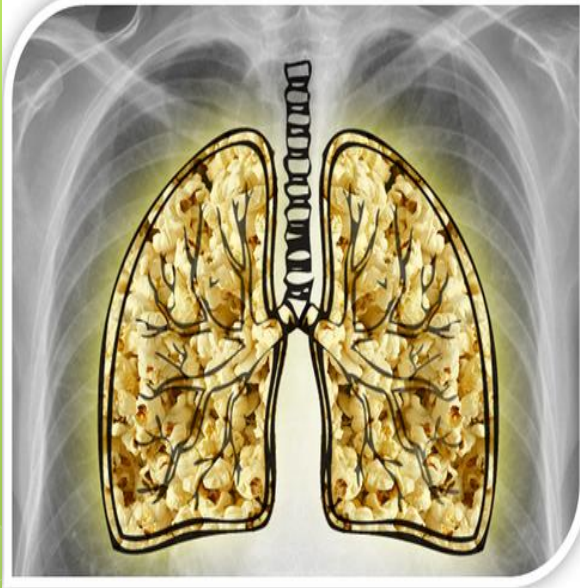
Cinnamaldehyde,
2-Methoxycinnamaldehyde

**Cherry flavors
may contain:**

Benzaldehyde

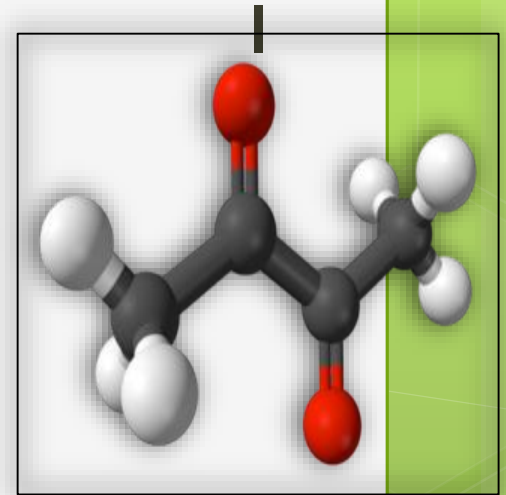


Popcorn Lung



**Alveoli &
Bronchioles
Experience**

Diacety



What are E-Cigarettes, or Vaping?

- Here's an article from Science News for Students:
- <https://www.sciencenewsforstudents.org/article/vaping-may-put-your-smile-risk>

What do doctors think?

- ◉ <https://www.youtube.com/watch?v=vioRvD1G9Vs>

Any Volunteers? The Risks of E-cigarettes for Young People

- ◉ <https://www.youtube.com/watch?v=4qtXtBc6Akc>

Danger: Vape pen explosions!

- Vape pens can explode in a person's pocket or when being inhaled causing severe damage.
- <https://www.youtube.com/watch?v=FWRxfQKNzZQ>

These devices and the liquids should be kept away from children and pets.



What is Thirdhand Smoke?



SHS



THS

Indoor Surfaces

Thirdhand Smoke



Nicotine & other chemicals

Harmful chemicals that you are putting into your body...

- http://www.youtube.com/watch?v=T3tFxeZ9a14&feature=player_embedded
- [John Oliver and Big Tobacco](#)

Harmful chemicals that you are putting into your body...

- http://www.youtube.com/watch?v=T3tFxeZ9a14&feature=player_embedded
- [John Oliver and Big Tobacco](#)

- * What are the long-term effects of chewing tobacco?

Oral and lung cancer

_____ - Hand smoke is known to cause the same health problems as smoking.

Second-hand smoke

What are known two health-related consequences that result from vaping?

Vaping lowers the body's immune system and causes brain damage.

Review

- What are the long-term effects of vaping?
- The long term effects are unknown

Why is it important to keep vaping products and fluids away from children?

They could become poisoned through injection and the devices could explode if mishandled or put into their mouths.

The End for now...