



Smoking and Vaping

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Healthy Hounslow

Purpose of this presentation

Today, we're going to learn about the effects of smoking and vaping, why it's important to avoid them, and how to make healthy choices.

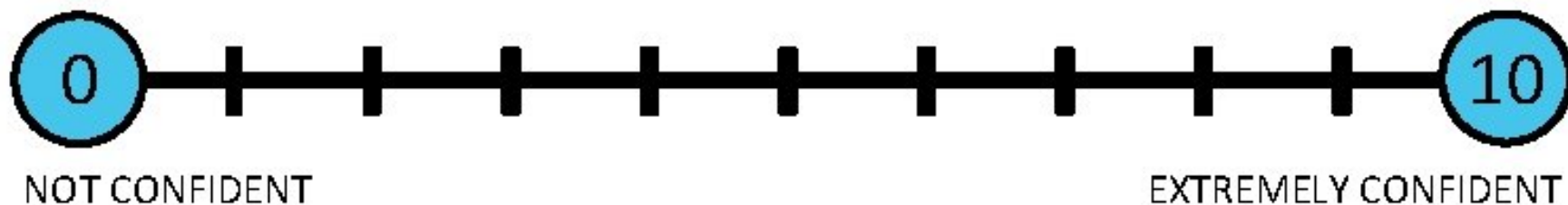
By the end of this session, you'll have the knowledge to make informed decisions about smoking and vaping.

SMOKING

SELF ASSESSMENT



- A. How confident are you that you could refuse a cigarette if offered?
- B. How confident are you that you would know where to get help if you had questions about smoking?
- C. How confident are you about knowing how to advise a friend or relative if they needed help to quit smoking?



Why It Matters"

"Smoking and vaping are significant issues, especially among young people. Understanding the risks can help you and your friends stay healthy."



Facts on Smoking!! - Important

Most adult smokers first tried smoking when they were under 18. A smoker who started young is even more likely to smoke than a smoker who started at an older age to become ill or die from it.

About 400,000 11- to 15-year-olds in England have tried smoking at some point and about 100,000 smoke now. More than three 15-year-olds out of one hundred smokes more than once a week.

Children with parents who smoke are about three times more likely to start smoking themselves. Children are also more likely to smoke if they have brothers, sisters or friends who smoke.

Vaping Statistics in the UK

Prevalence: "In 2024, 18% of young people aged 11-17 in the UK have tried vaping."

Current Use: "Around 7.2% of 11-17-year-olds currently vape."

Experimentation: "9.5% of young people have tried vaping once or twice¹."

Regular Use: "3.0% of young people vape less than once a week, and 4.2% vape more than once a week."

Exposure to Promotion: "72% of 11-17-year-olds report being exposed to vape promotion, mainly in shops (55%) and online (29%)¹."

Comparison with Smoking: "More young people are vaping than smoking, with 5.1% currently smoking."

What is happening in Hounslow?

As of 2022/23,

- 94% of Year 9 pupils in Hounslow have never smoked cigarettes.

In 2022/23,

- 86.6% of Year 9 pupils in Hounslow stated that they have never tried vaping.
- 6.8% of Year 9 pupils in Hounslow have tried it once, while 1.2% said that they vape more than weekly.

The Government plans to tackle under-age smoking?

The chance of an 11- to 15-year-old being a smoker has halved in the past ten years. This change is partly because of new laws:

Shops can only sell tobacco to adults over 18 (used to be 16)

The power to stop shopkeepers from selling tobacco at all if they keep selling it to children

Not allowing cigarettes to be on display in shops

Cigarettes only being sold in plain packets

Question 1

Why do some young people try their first cigarette?

Why do some young people try their first cigarette?

Young people might try their first cigarette for several reasons:

Peer Pressure: Friends or peers who smoke can influence them to try it.

Curiosity: They might be curious about what smoking feels like.

Media Influence: Movies, TV shows, and advertisements can make smoking seem appealing.

Parental Influence: If parents or family members smoke, young people might be more likely to try it.

Stress Relief: Some might believe that smoking can help them relax or cope with stress

"What is the difference between smoking, vaping and shisha"

Smoking:

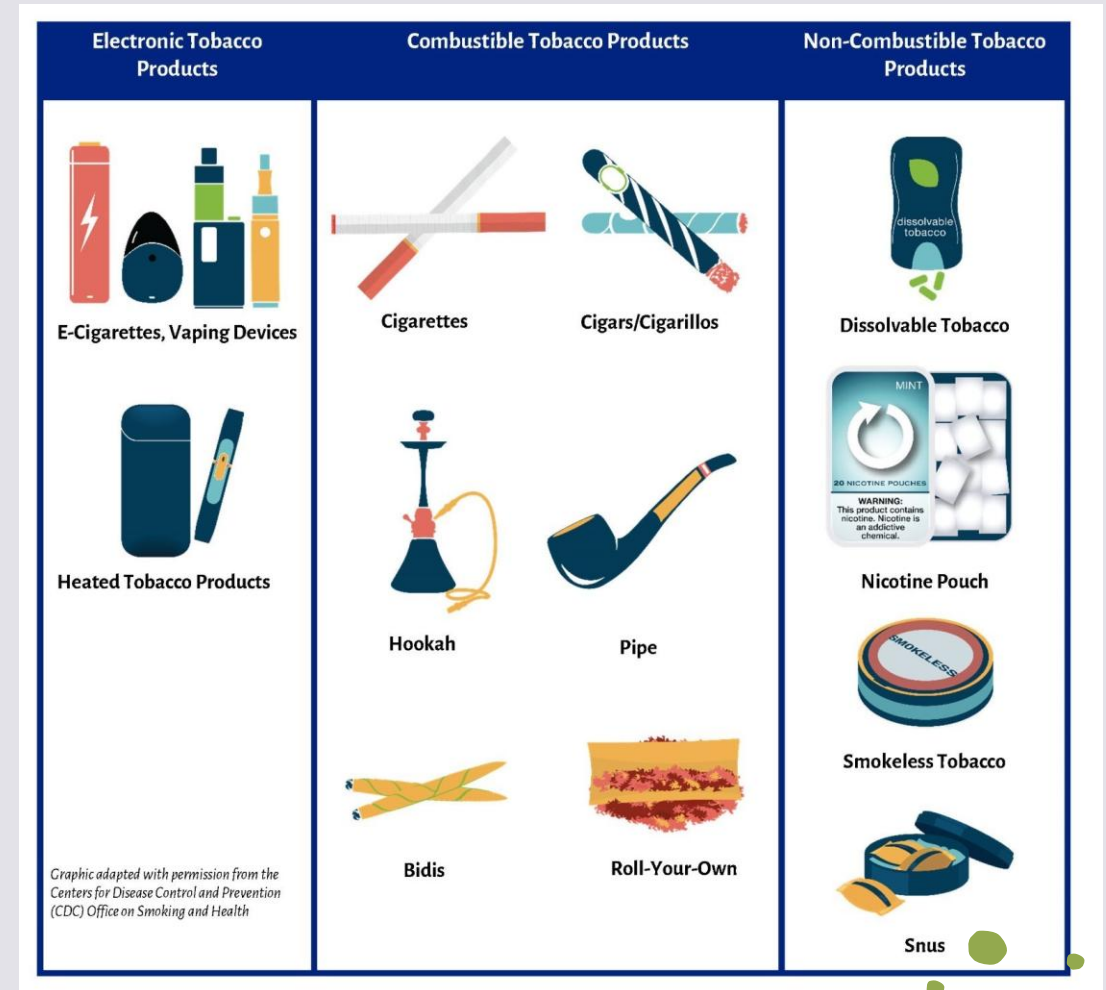
Definition: Inhaling smoke from burning tobacco in cigarettes, cigars, or pipes.

Vaping:

Definition: Inhaling vapor produced by an electronic cigarette or similar device.

Shisha (Hookah):

Definition: Inhaling smoke from flavoured tobacco heated by charcoal in a water pipe.





What's are 3 main components in the Tobacco Products?

Can you guess?

3 Major Components in a Cigarette are:

Nicotine: The addictive substance that makes it hard to quit smoking.

Tar: A sticky substance that coats your lungs and can cause cancer.

Carbon Monoxide: A poisonous gas that reduces the amount of oxygen your blood can carry.



CHEMICAL COMPOUNDS IN CIGARETTE SMOKE

THIS GRAPHIC OFFERS A SUMMARY OF A SELECTION OF HAZARDOUS COMPOUNDS IN CIGARETTE SMOKE & THEIR EFFECTS

ESTIMATED NUMBER OF CHEMICAL COMPOUNDS IN CIGARETTE SMOKE

7,357

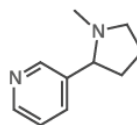
70

NUMBER OF THESE COMPOUNDS WITH CONFIRMED CARCINOGENIC ACTIVITY



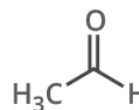
The compounds shown below are all found in cigarette smoke. The mass figures, given in μg , take into account both mainstream (inhaled) and sidestream smoke. 1 μg is equal to 1 millionth of a gram. Amounts of these compounds vary in different brands of cigarettes - these figures are approximate.

NICOTINE



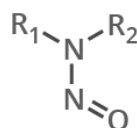
- Approx. 919 μg per cigarette
- Addictive
- Increases heart rate
- Increases blood pressure
- Increases blood glucose
- Lethal dose: around 500-1000mg

ACETALDEHYDE



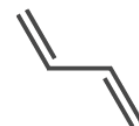
- Approx. 680-1571 μg per cigarette
- **Known animal carcinogen**
- **Probable human carcinogen**
- Irritant to skin & eyes
- Irritant to respiratory tract

N-NITROSAMINES



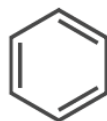
- Large class of compounds
- Several are tobacco-specific
- **Known human carcinogens**
- Most carcinogenic: NNK & NNN
- NNK: approx. 0.3 μg per cigarette
- NNN: approx. 2-50 μg per cigarette
- May cause reproductive damage

1,3-BUTADIENE



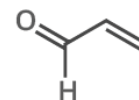
- Approx. 36-191 μg per cigarette
- **Known human carcinogen**
- **Suspected human teratogen**
- Irritant to eyes & skin
- Irritant to upper respiratory tract

BENZENE



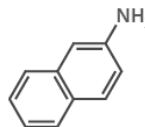
- Approx. 46-272 μg per cigarette
- **Known human carcinogen**
- Damages bone marrow
- Lowers red blood cell count
- May harm reproductive organs

ACROLEIN



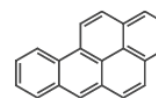
- Approx. 69-306 μg per cigarette
- **Possible human carcinogen**
- **Known DNA mutagen**
- Irritant to skin & nasal passages
- May contribute to heart disease

AROMATIC AMINES



- Large class of compounds
- Includes 2-aminonaphthalene:
 - **Known human carcinogen**
- Linked with bladder cancer
- Approx. 0.04 μg per cigarette

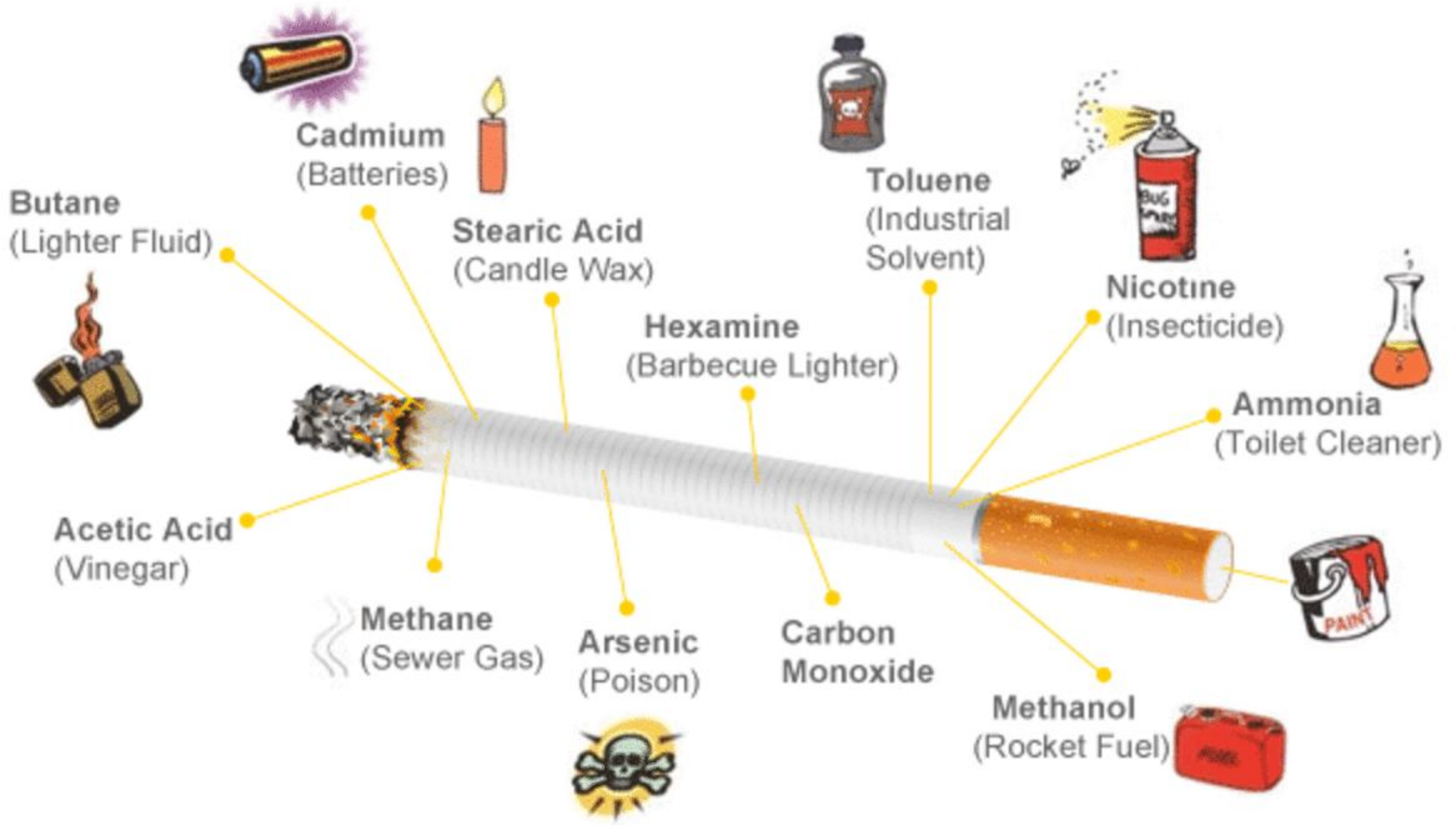
POLYAROMATICS



- Large class of compounds
- Includes benzo[a]pyrene:
 - **Known human carcinogen**
 - **Known DNA mutagen**
- Affects reproductive capacity
- Up to 0.14 μg per cigarette



What's in a cigarette?



Question 2

Why do some young people go onto being a regular smoker?

Why do some young people go onto being a regular smokers?

Several factors can contribute to young people becoming regular smokers:

Nicotine Addiction: Nicotine is highly addictive, and once they start, it can be hard to stop.

Social Environment: Being in a social circle where smoking is common can reinforce the habit.

Routine and Habit: Smoking can become part of their daily routine, making it harder to quit.

Perceived Benefits: Some might continue smoking because they believe it helps them manage stress or weight

Question 4 - General Understanding

What do you know about vaping?

Have you ever seen someone use a vape? What did you think about it?

What's in Vapes?

Nicotine: "The addictive substance found in tobacco. Most vapes contain nicotine, which can harm brain development in teens."

Flavors: "Vapes come in many flavors, like fruit, candy, and mint, which can make them appealing to young people."

Propylene Glycol and Vegetable Glycerin: "These are used to create the vapor. Propylene glycol is a clear liquid, and vegetable glycerin is made from vegetable oil."

Other Chemicals: "Vapes can contain harmful chemicals like acetone (found in nail polish remover), formaldehyde (used to preserve dead bodies), and heavy metals like lead."

What is a Vape or Electronic Cigarette?

Definition: "A vape, also known as an electronic cigarette (e-cigarette), is a battery-operated device that heats a liquid to produce an aerosol, often called vapor¹."

Components:

Battery: Powers the device.

Heating Element: Heats the liquid to create vapor.

Cartridge/Tank: Holds the liquid, which can be refillable or disposable.

Mouthpiece: Used to inhale the vapor.

Common Names: "Vapes, vape pens, e-cigs, e-hookahs, and mods."

Flavours added to the vapes

The increase in youth e-cigarette use has been driven by multiple factors, including advertising, high nicotine content, and the availability of flavors that appeal to youths. Youths report that flavors are a primary reason they use e-cigarettes, and most youth e-cigarette users first initiate use with flavored products. Among youth e-cigarette users in 2019, 70% reported using flavored varieties, making e-cigarettes the most common flavored tobacco product used among youths.





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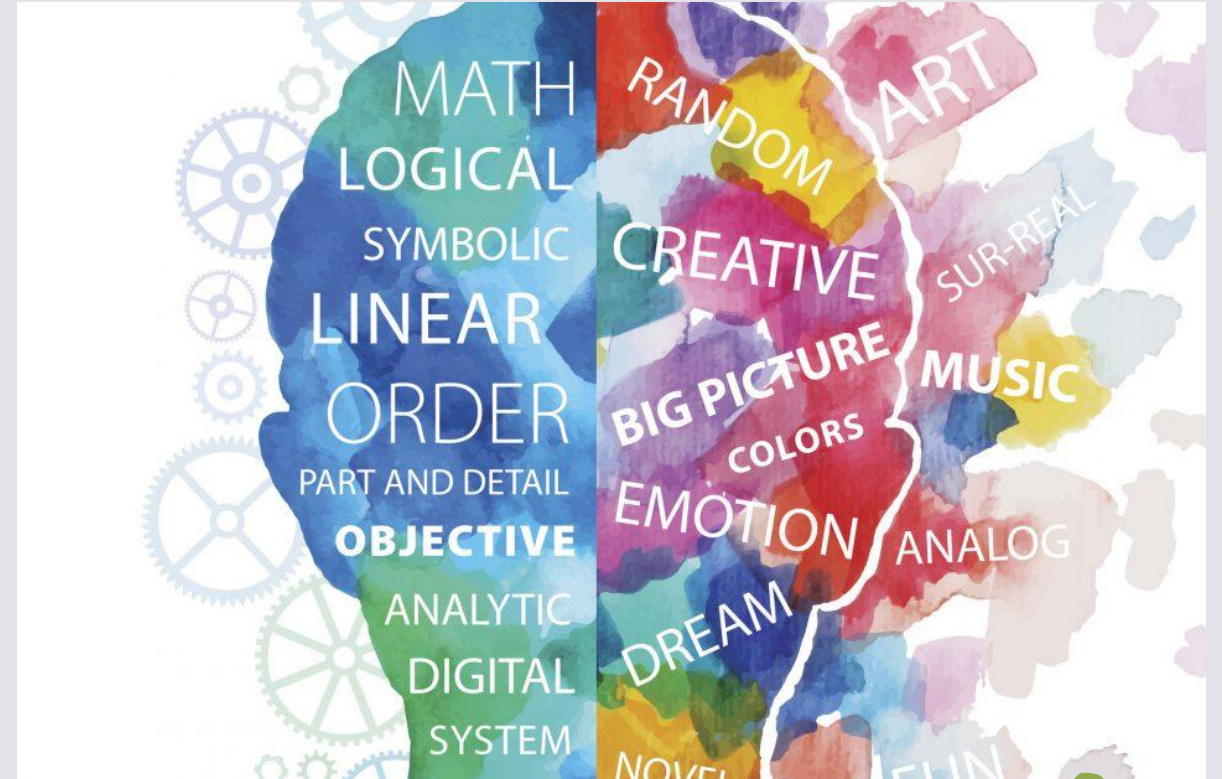
Health Risks of Smoking

In the UK, smoking is linked to a significant number of diseases and health conditions. Here are some key statistics and facts:

Over 50 Diseases: Smoking is associated with more than **50 serious health conditions**, including various cancers, heart disease, stroke, and respiratory diseases.

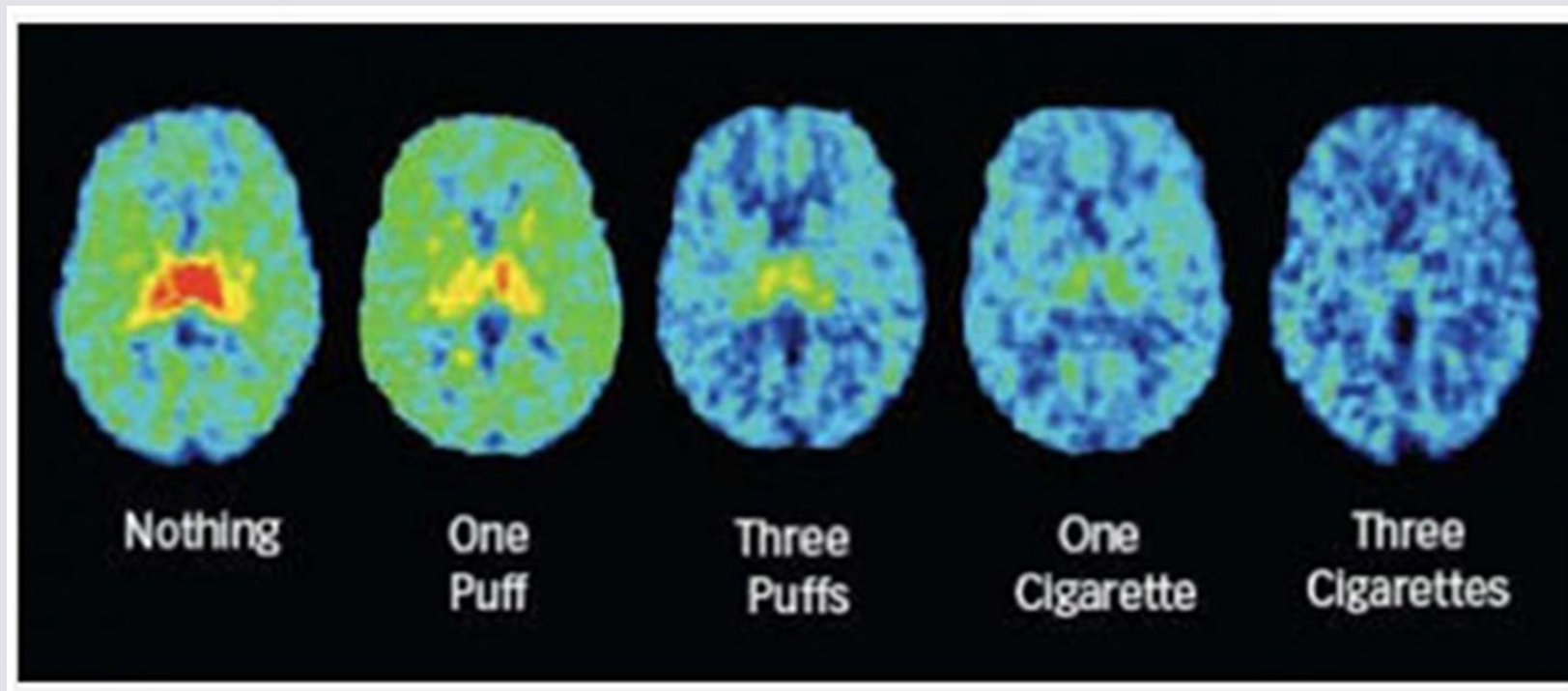
Development of the Brain

The human brain is still growing and developing until about **25 years** of age, forming billions of connections as we learn, practice skills and have new experiences.



How does nicotine effect the brain?

Using nicotine through vapes, cigarettes, nicotine pouches and snus (nicotine pouches + tobacco pouches) during this critical period of brain development can cause problems in the short and long-term. These problems can include issues with attention, concentration, learning, memory, impulse control, emotional regulation and mood.



Question 3

Why do some people find it difficult to stop smoking?

Why do some people find it difficult to stop smoking?

Quitting smoking can be challenging due to several reasons:

Nicotine Withdrawal: Nicotine changes how the brain works, and withdrawal symptoms can include irritability, anxiety, and strong cravings⁵.

Habitual Triggers: Daily routines and activities associated with smoking can trigger the urge to smoke..

Social Factors: Social interactions and environments where smoking is common can make quitting harder.

Emotional Dependence: Smoking can be used as a coping mechanism for stress, making it emotionally challenging to quit.

Risks from Smoking

Smoking can damage every part of the body

Cancers

Head or Neck

Lung

Leukemia

Stomach

Kidney

Pancreas

Colon

Bladder

Cervix

Chronic Diseases

Stroke

Blindness

Gum infection

Aortic rupture

Heart disease

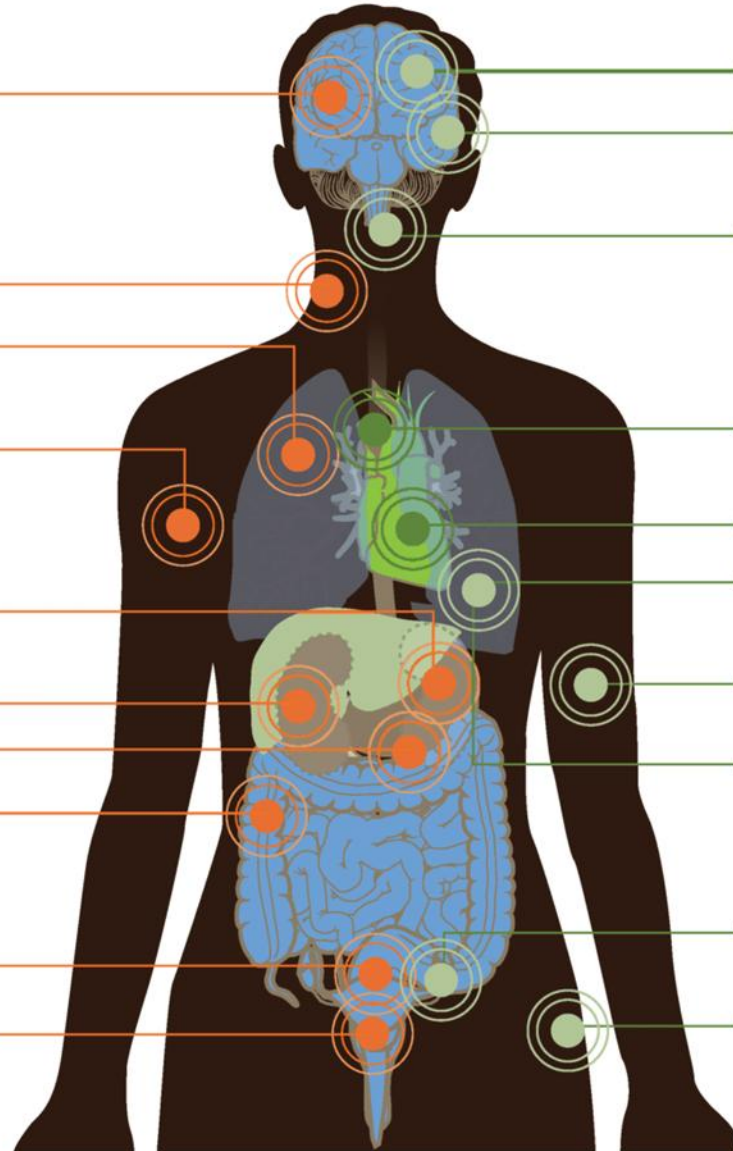
Pneumonia

Hardening of the arteries

Chronic lung disease & asthma

Reduced fertility

Hip fracture



HEALTHY LUNGS



Healthy lungs are pink or reddish in color, easily contract and expand, and efficiently filter dust or dirt from the air you breathe.

VS

SMOKER'S LUNGS



A smoker's lungs often appear black or mottled, have damaged tissue and less elasticity, and allow toxic substances to build up.



Effects of smoking on appearance

Non-smoker
Aged 35

Smoker
Aged 35



Healthy hair, skin and nails of a non-smoker

Smokers face is the result of puckering on a cigarette and squinting in reaction to smoke, which creates deep wrinkles around the mouth and eyes

Dull, yellow-grey complexion

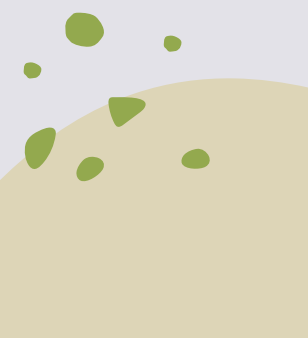
Skin damage from low levels of Vitamin A

Chemicals break down hair cells, leading to hair damage

A breakdown of collagen supply to skin results in less firmness and elasticity

- Damage to skin fibres:
- Wrinkles
 - Sagging of the eyelids
 - Bags under eyes
 - Premature aging of skin on our body

Smoking accelerates the aging process by 10-20 years



Health Diseases Related to Smoking

Cancer: Smoking causes around 70% of lung cancer cases and is linked to cancers of the mouth, throat, esophagus, bladder, kidney, stomach, liver, and more¹.

Heart Disease and Stroke: Smokers are twice as likely to have a heart attack compared to non-smokers. Smoking also increases the risk of stroke².

Respiratory Diseases: Smoking is the leading cause of chronic obstructive pulmonary disease (COPD), which includes chronic bronchitis and emphysema².

Other Conditions: Smoking is linked to diabetes, rheumatoid arthritis, and eye diseases such as cataracts and age-related macular degeneration

Health Diseases Related to Vaping

Lung Diseases:

EVALI (E-cigarette or Vaping Product Use-Associated Lung Injury): A serious lung condition linked to vaping, causing symptoms like cough, shortness of breath, chest pain, and in severe cases, lung failure.

Popcorn Lung (Bronchiolitis Obliterans): Caused by inhaling diacetyl, a chemical used in some vape flavorings, leading to scarring of the tiny air sacs in the lungs.

Asthma and Respiratory Issues: Vaping can worsen asthma and cause other respiratory problems, including chronic bronchitis

Cardiovascular Diseases:

Heart Disease: Vaping can increase heart rate and blood pressure, leading to a higher risk of heart disease.

Stroke: Nicotine and other chemicals in vapes can increase the risk of stroke.

Addiction and Mental Health:

Nicotine Addiction: Most vapes contain nicotine, which is highly addictive and can lead to dependence.

Mental Health Issues: Nicotine can affect brain development in teens, leading to mood swings, anxiety, and depression

A young man in a grey t-shirt and blue denim jacket is smoking a cigarette. He is looking down at the cigarette. A young woman with long brown hair is looking at him with a concerned expression, her hand near her mouth. The background is a textured wall and a chain-link fence.

*Questions and
Answers?*

Question 5 - Health and Safety

Why do you think some people choose to vape?

How do you think vaping might affect someone's health?

What are some ways we can keep our lungs healthy?

Question 6 - Peer Influence and Decision Making

What would you do if a friend asked you to try vaping?

How can you say no if someone offers you a vape?

Question 7 Personal Reflection

Why is it important to make healthy choices?

What are some activities you enjoy that help you stay healthy?

Healthy Hounslow

Healthy Hounslow is a free service to help anyone stop vaping or smoking. If you need help, speak to your teacher or parent.

Find out more at
<https://healthyhounslow.co.uk>

Or call 0204 559 8200



London Borough
of Hounslow

Vaping

Vaping is an effective aid to help quit smoking cigarettes and is much less harmful.

BUT

Vaping isn't risk-free, especially amongst children or young people. There are many illegal vapes on the market, which can be dangerous to use.

Know how to spot a legal vape:

- ✓ 2ml maximum tank size
- ✓ 20mg/ml or 2% highest nicotine strength
- ✓ Around 600 total number of puffs
- ✓ 10ml largest refill bottle

If you don't smoke, don't vape.

For more information on using e-cigarettes to stop smoking, visit:

www.nhs.uk/live-well/quit-smoking/using-e-cigarettes-to-stop-smoking

