



# SMOKE-FREE PRODUCTS: THE FACTS



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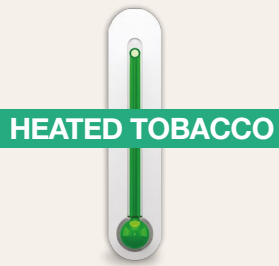
## What are smoke-free products?

### SMOKE-FREE PRODUCTS ARE BETTER ALTERNATIVES FOR ADULTS WHO WOULD OTHERWISE CONTINUE TO SMOKE.

There are various product types in the category, such as e-cigarettes, heated tobacco products, and modern oral products.

They use different methods to deliver nicotine but share one common characteristic:

They do not produce smoke.



**HEATED TOBACCO**



HEATS TOBACCO



NICOTINE NATURALLY PRESENT IN TOBACCO



USES REAL TOBACCO



NO SMOKE AND NO ASH



**E-CIGARETTES**



VAPORIZES E-LIQUID



NICOTINE SOLUTION ADDED TO E-LIQUID



NO TOBACCO



NO SMOKE AND NO ASH



**SNUS**



TOBACCO POUCH DESIGNED FOR ORAL USE



NICOTINE NATURALLY PRESENT IN TOBACCO



USES REAL TOBACCO



NO SMOKE AND NO ASH



**NICOTINE POUCHES**



NICOTINE-CONTAINING POUCH DESIGNED FOR ORAL USE



NICOTINE DERIVED FROM TOBACCO



NO TOBACCO



NO SMOKE AND NO ASH

Basically, smoke-free alternatives don't burn tobacco, so they don't produce any smoke. E-cigarettes and heated tobacco products heat a substance—either tobacco, or a liquid nicotine solution—to create a flavored aerosol or vapor (hence the term 'vaping').

This aerosol—like smoke—contains a mixture of particles suspended in gas. But unlike smoke, the aerosol does not contain solid particles and contains fewer and reduced average levels of harmful chemicals compared to cigarette smoke.

With snus and oral nicotine pouches there is no vapor (and no smoke), and nicotine is absorbed orally.



SMOKE-FREE ALTERNATIVES DON'T BURN TOBACCO, SO THEY DON'T PRODUCE ANY SMOKE.

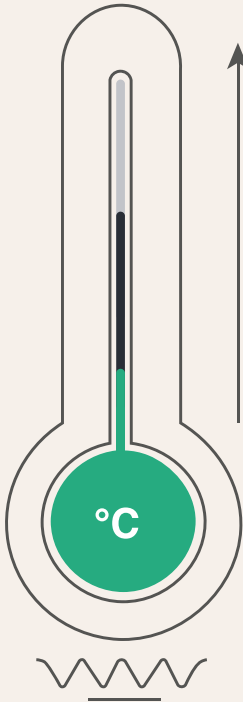
All smoke-free products are different and should be scientifically validated on their own merits.

The reduction in harmful chemicals does not mean they're risk-free. They still deliver nicotine which, while addictive, is not the primary cause of smoking-related diseases. The best choice for smokers is to quit tobacco and nicotine products entirely.

## Why is smoke the main concern?

**THE PRIMARY SOURCE OF SMOKING-RELATED DISEASES IS THE HIGH LEVELS OF HARMFUL AND POTENTIALLY HARMFUL CHEMICALS FOUND IN CIGARETTE SMOKE.**

Cigarette smoke contains over 6,000 chemicals. Of these, around 100 have been identified by public health experts as harmful or potentially harmful and linked to smoking-related disease.



Scientific studies have shown that, as the temperature of tobacco increases, the levels of harmful chemicals formed increase.

**A cigarette burns tobacco at temperatures up to 900°C. This creates the high levels of harmful chemicals in cigarette smoke.**

By eliminating smoke, these products can significantly reduce the average levels of harmful and potentially harmful chemicals.

This makes them a better choice than continuing to smoke.

THE AEROSOL OF SMOKE-FREE PRODUCTS IS FUNDAMENTALLY DIFFERENT TO CIGARETTE SMOKE BECAUSE THERE IS NO BURNING.

## What about tar?

### TAR IS THE RESULT OF BURNING.

Tar is not a single substance. It has historically been used to measure cigarette yields using a number of machine-based, standardized processes. Methods of calculating tar vary depending on the testing regime used.

### What do you need to know about tar?

$$\text{Tar} \neq \text{Road surfacing}$$


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$$\text{Tar} = \text{Measurement of particulate matter in smoke} - \left( \begin{array}{c} \text{Water} \\ + \\ \text{Nicotine} \end{array} \right)$$



Tar is a **machine-based measurement of the weight of particulate matter leftover when you remove the nicotine and the water from cigarette smoke**. Tar has historically been used as a standardized way of measuring cigarette yields.

Importantly, tar yields cannot replicate real-world smoking behavior, so some health agencies—such as those in the European Union—are moving away from requiring national authorities to print these metrics on cigarette packs over concerns that they could be misleading to consumers.

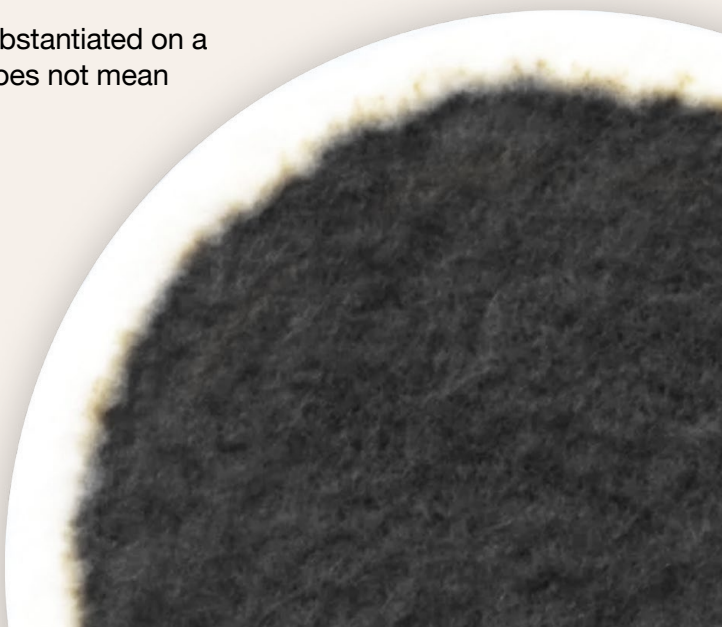
Smokers should certainly not assume that the numbers printed on packs indicate precise amounts that they would inhale through smoking the cigarette, and should not assume that lower numbers mean a particular cigarette brand is safe, safer or less harmful than another.



TAR IS GENERALLY NOT USED AS A MEASUREMENT IN CONNECTION WITH SMOKE-FREE ALTERNATIVES BECAUSE THE CHEMICAL COMPOSITION OF THE AEROSOL (OR 'VAPOR') IS FUNDAMENTALLY DIFFERENT FROM CIGARETTE SMOKE IN THAT THEY DON'T BURN TOBACCO.

When scientifically substantiated smoke-free products are made to appropriate quality and safety standards to avoid combustion, this can lead to a significant reduction in the number and average levels of harmful and potentially harmful chemicals compared to cigarettes.


But these reductions must be substantiated on a product-by-product basis and does not mean these products are risk-free.




## What about nicotine?

**NICOTINE IS NOT THE PRIMARY CAUSE OF SMOKING-RELATED DISEASE. HOWEVER, IT IS ADDICTIVE AND CARRIES SOME RISK.**

### What is nicotine?



 Nicotine occurs naturally in tobacco. It has pharmacological effects, including increasing heart rate and blood pressure.

 Certain people should not use products that contain nicotine. This includes pregnant or breastfeeding women and people with heart disease, severe high blood pressure, or diabetes. Minors should not use or have access to tobacco or nicotine-containing products.

 Nicotine is addictive and not risk-free. Nicotine is not the primary cause of smoking-related disease. Other chemicals in the smoke are.


Once nicotine is inhaled, it is absorbed through the lungs into the bloodstream where it travels through the body into tissues and organs, including the brain.

In the brain, nicotine triggers the release of dopamine and other neurotransmitters.



After repeated nicotine stimulation, the brain adapts to the presence of nicotine, a process that is reversible when a person stops using nicotine-containing products.

Nicotine can also cause physiological effects outside the brain. For example, temporary (and reversible) narrowing of blood vessels, higher blood pressure, and increased heart rate.<sup>1</sup>



SMOKE-FREE PRODUCTS DELIVER NICOTINE, AS THIS IS ONE OF THE CHARACTERISTICS ADULT SMOKERS SEEK IN ALTERNATIVE PRODUCTS.

Nicotine is one of the reasons that some adults smoke but is not the only one. For many adult smokers, the taste, ritual, and sensory experience are also reasons that they smoke.

For adults (who would otherwise continue to smoke) to successfully switch from cigarettes to smoke-free alternatives, these products need to contain nicotine and also provide an acceptable taste and experience.

Certain people should not use products that contain nicotine. In particular, people who've never smoked, or people with certain health conditions. Minors should never use or have access to tobacco or nicotine-containing products.

<sup>1</sup> "Pharmacology of Nicotine: Addiction, Smoking-Induced Disease, and Therapeutics" 2009 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2946180/>

## What is harm reduction?

**HARM REDUCTION MEANS MAKING A BEHAVIOR LESS RISKY,  
WITHOUT CEASING THE BEHAVIOR COMPLETELY.**

Advances in science, technology and regulation have changed the way we live. Harm reduction uses these advances to reduce negative effects of potentially harmful behaviors.

Harm reduction is present in many areas of our life. Some are simple, and part of our everyday lives. Others are more complex or use technology to offer a better solution.



### **ELECTRIC CARS:**

They do what cars with combustion engines can, but are less harmful to the environment than their petrol predecessors.



### **ENERGY SAVING LIGHT-BULBS:**

They still provide light, but with less environmental impact than traditional bulbs.



### **CYCLING HELMETS AND SEAT BELTS:**

Accidents happen, but cycling helmets and seat belts can reduce the likelihood or severity of injuries.



### **SUN PROTECTION:**

Exposure to the sun can be harmful, but protection such as sun cream, sunhats and sunglasses can reduce the negative impacts.

## Harm reduction also applies to smoking

**IF YOU DON'T SMOKE, DON'T START.**

**IF YOU SMOKE, QUIT.**

**IF YOU DON'T QUIT, CHANGE.**

**QUITTING SMOKING AND NICOTINE WILL ALWAYS BE THE BEST CHOICE. HOWEVER, SCIENTIFICALLY SUBSTANTIATED SMOKE-FREE PRODUCTS ARE A POTENTIALLY LESS HARMFUL ALTERNATIVE FOR ADULTS WHO WOULD OTHERWISE CONTINUE TO SMOKE.**

This is because the absence of smoke significantly reduces the average levels of harmful chemicals compared to cigarettes.

They are not completely risk-free and deliver nicotine, which is addictive, but they are a much better choice for adults than continuing to smoke.

Despite existing tobacco control measures, millions of people continue to smoke.

SCIENCE-BACKED, SMOKE-FREE PRODUCTS CAN PLAY A ROLE IN MOVING ADULTS WHO WOULD OTHERWISE CONTINUE TO SMOKE AWAY FROM CIGARETTES.

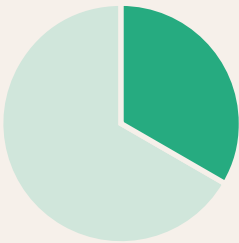
As smokers around the world switch to smoke-free alternatives, we can help combat the public health impact of smoking by complementing existing strategies designed to discourage smoking (and encourage cessation for those who smoke), with a harm reduction approach.

## Everyone deserves to know the facts

### ADULT SMOKERS NEED ACCURATE INFORMATION ABOUT SMOKE-FREE ALTERNATIVES TO MAKE AN INFORMED CHOICE.

While the danger of smoking is universally well known, too many smokers remain unaware that better alternatives exist, they can't access them, or they are confused by false or misleading information that prevents them from making an informed choice.

According to an international survey conducted for Philip Morris International by independent research firm Povaddo<sup>2</sup>:



A **third of adult smokers** say confusion is keeping them from **switching to a better alternative**.



**91% of smokers** who have switched to a better alternative and stopped smoking, confirm that having **accurate information** about how these products differ from cigarettes was an **important factor in their decision**.



**Almost 80% of the survey's respondents agree** that adults who would otherwise continue smoking cigarettes **should have access to, and accurate information about, smoke-free alternatives**.

The survey reveals that accurate information on smoke-free alternatives plays a decisive role in enabling smokers to move away from cigarettes. It also shows existing confusion on primary causes of harm and how smoke-free products differ from cigarettes.



**Just over half of adults know the facts about nicotine.**



**Only 41% of respondents correctly identified that the high level of toxicants (19%) or tar (22%) generated by burning tobacco is the primary cause of smoking-related diseases.**



**Nearly half of the respondents wrongly believe that e-cigarettes and heated tobacco products are more or equally harmful than cigarettes (45% and 46%, respectively, for each product category).**

**MISINFORMATION POSES A REAL THREAT TO PROGRESS TOWARD PHASING OUT CIGARETTES, DESPITE THE GROWING SOCIETAL SUPPORT FOR SMOKE-FREE ALTERNATIVES.**

<sup>2</sup> Survey methodology: Povaddo conducted this online survey on behalf of PMI between July 19 and August 3, 2021. The survey was fielded among 29,484 respondents of legal age, general population adults aged 21 or older, in 26 countries and territories: Argentina, Brazil, Colombia, Czech Republic, Dominican Republic, France, Greece, Italy, Japan, Malaysia, Mexico, Morocco, Netherlands, Norway, Poland, Portugal, Romania, Saudi Arabia, South Africa, South Korea, Spain, Sweden, United Arab Emirates, the United Kingdom, Ukraine, and the United States.

## These are the facts

**THERE ARE AN ESTIMATED 1.1 BILLION SMOKERS WORLDWIDE. THE REALITY IS THAT IN ANY GIVEN YEAR, 9 OUT OF 10 ADULT SMOKERS WON'T QUIT.**

Quitting cigarettes and nicotine altogether is always the best choice. But for those who don't, there are better alternatives to continued smoking, such as heated tobacco products, e-cigarettes, and modern oral products.

Smoke is the main issue. Cigarette smoke contains over 6,000 chemicals, many of which are harmful.

Smoke-free products don't burn tobacco, so they don't produce smoke.





BY ELIMINATING THE BURNING, SCIENTIFICALLY SUBSTANTIATED SMOKE-FREE PRODUCTS SIGNIFICANTLY REDUCE THE AVERAGE LEVELS OF HARMFUL CHEMICALS RELEASED COMPARED TO CIGARETTES.

This doesn't make them risk-free, but they are a better choice for adults than continued smoking. Smoke-free products deliver nicotine, which is addictive and not risk-free, but not the primary cause of smoking related diseases.

Adult smokers should have access to accurate information about smoke-free alternatives to make informed decisions.

THE BEST CHOICE IS ALWAYS TO QUIT CIGARETTES AND NICOTINE ALTOGETHER. FOR ADULTS WHO DON'T QUIT, SMOKE-FREE ALTERNATIVES ARE A BETTER CHOICE THAN CONTINUING TO SMOKE.

### CIGARETTE

BURNS TOBACCO	
SMOKE	
HIGH LEVELS AND NUMBER OF HARMFUL AND POTENTIALLY HARMFUL CHEMICALS	
ASH	

### SMOKE-FREE ALTERNATIVE

	DOES NOT BURN TOBACCO
	NO SMOKE [NICOTINE DELIVERED THROUGH AN AEROSOL OR ABSORBED ORALLY]
	SIGNIFICANTLY REDUCED LEVELS AND NUMBER OF HARMFUL AND POTENTIALLY HARMFUL CHEMICALS
	NO ASH

