

## What Are Other Reduced Harm Alternatives to Tobacco Products?

While e-cigarettes are the most widely known alternative that exposes users to less harm than combustible cigarettes, there are many other products that are used across the globe to help smokers quit their deadly habit.

- **Heat-Not-Burn Tobacco Products**
  - Heat-Not-Burn products (HNBs) are most popular in Japan, where **cigarette sales fell by 43% over five years as a direct result of increased HNB use.**
  - Switching from cigarettes to HNBs **reduces a user's exposure to harmful chemicals** by heating tobacco, to create a vapor, rather than undergoing a combustion process that creates smoke.
  - **The U.S. Food and Drug Administration (FDA) authorized the marketing of an HNB product in 2020 as having “reduced exposure” to harmful substances.**
  - FDA noted that the heating process “significantly reduces the body’s exposure to 15 specific harmful and potentially harmful chemicals” as well as “potential carcinogens and toxic chemicals”.
  - A study from January 2021 found that Heated Tobacco Products (HTP) emitted **87.4% less carbonyl compounds** than a conventional cigarette. Carbonyl compounds include formaldehyde, acetaldehyde and acrolein which are incredibly harmful.
  - The same study determined that a puff of an HTP produced **96.2% less PAHs** (polycyclic aromatic hydrocarbons) than a conventional cigarette puff. While PAHs “generally have a low degree of toxicity”, continued exposure to them, like long-term cigarette smoking, can cause lung, skin, and bladder cancer.
- **Swedish Snus**
  - In Sweden, men use more smokeless tobacco than any other country and have the **lowest rate of lung cancer** in the developed world.
  - The smokeless tobacco used in Sweden, called snus, is a “clean” tobacco product that **contains significantly less toxins than other tobacco products.**
  - FDA has granted a “reduced exposure” marketing authorization for eight different Swedish snus products, allowing them to state that the product “**puts you at a lower risk of mouth cancer, heart disease, lung cancer, stroke, emphysema, and chronic bronchitis.**”
- **Nicotine Pouches**
  - Nicotine pouches are completely tobacco-free and contain nicotine, food-grade ingredients, and plant fibers.
  - The toxicant profile of pouches is less than snus. Pouches contain only trace levels of harmful chemicals and have low levels of enamel staining.