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Vaping and Your Heart

Probably less harmful than smoking cigarettes, and not harmless. What nicotine and the vapor do to your heart.

10 to 20
beats per minute the heart rate often climbs within a few minutes of a puff

Almost 2x
as likely to quit cigarettes at one year with a vape as with patches and gum

80%
of those who quit with a vape were still vaping a year later

WHAT NICOTINE DOES

Your body reacts as if under threat

Within minutes of a puff
the same nicotine effects come from a cigarette, a vape, a patch or gum

Nicotine reaches the brain

↓

Adrenaline release, fight-or-flight fires up

- **Heart rate** — climbs, often by 10 to 20 beats a minute
- **Blood pressure** — rises
- **Arteries narrow** — including the small ones feeding the heart
- **Stickier platelets** — blood becomes more likely to clot

Over time the vessel lining grows stiffer and less responsive, an early step toward atherosclerosis

Across many short lab studies, a typical vaping session raised blood pressure and heart rate, stiffened the arteries and impaired the way blood vessels relax, within thirty minutes. These changes showed up even in young, otherwise healthy adults who had never smoked. Some studies have found the lining of blood vessels works about as poorly in chronic vapers as in chronic smokers.

WHAT IS IN THE VAPOR

Almost no water

1. **Carrier liquids and flavors**
Propylene glycol and vegetable glycerin are considered safe to eat, with very little data on inhaling them. Flavorings such as cinnamaldehyde and diacetyl were approved for food, not for inhalation.

2. **Metals and fine particles**
The heating coil sheds tiny amounts of nickel, chromium and sometimes lead into the vapor. Breathing fine particles, like those in air pollution, raises the risk of heart attack, stroke and arrhythmia.

The right comparison

Vaping looks good next to smoking, and many people conclude it is safe. That is a comparison error. The right comparison is vaping versus not vaping, and the data on that comparison are not friendly.

YOUR NEXT STEP AND WHEN TO GET CHECKED ARE ON THE BACK

YOUR NEXT STEP

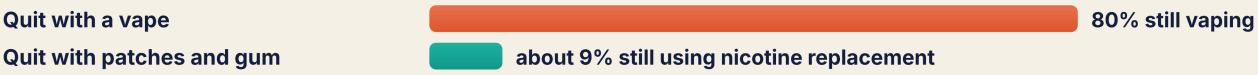
Getting off nicotine, and when to get checked

WHICH GROUP ARE YOU IN

You smoke cigarettes	Switching to a vape is better than continuing to smoke. Use it as a tool to get off cigarettes, then plan a taper off the vape itself. Six months to a year of vaping while you stabilize off cigarettes is a reasonable arc. Lifelong vaping is not.
You vape, never smoked	There is no good reason to keep going. The kindest thing you can do for your future self is to put the device down.
You do neither	Do not start, because there is no upside. The downside is real even if it is not yet fully measured.

Still on nicotine one year after quitting cigarettes

British randomized trial of about 900 smokers



Vapes are very effective at getting you off cigarettes, and also at keeping you on nicotine indefinitely. **Taper the strength.** Pick a date in the next few months. Cut from a high-strength pod to a medium one for a few weeks, then to a low one, then to nicotine-free.

HELP THAT WORKS

Varenicline	Varenicline is the most effective single drug. It cuts cravings and blocks the reward from nicotine.
Bupropion	Another option, often a good fit if you also struggle with depression.
Nicotine replacement	A patch plus gum or lozenges, well tolerated, roughly doubles your odds of quitting compared with no help.
Free support	1-800-QUIT-NOW connects you to your state's quitline. Truth Initiative's This Is Quitting works by text for younger vapers.

CALL 911 OR GET SEEN WITHOUT WAITING

Call 911	Chest pain or pressure, or severe shortness of breath, after vaping or at any time.
Heart symptoms	Palpitations, or a sense your heart is racing or skipping. Lightheadedness or fainting.
Breathing	Shortness of breath that is new or worsening. Persistent cough or fever can be early signs of vaping-related lung injury.

FLAG AT YOUR ANNUAL VISIT

Subtle clues	Blood pressure creeping up, a resting heart rate higher than it used to be, or sleep that has gotten worse.

THE FIRST TWO WEEKS

Plan for them to be the hardest. Cravings typically peak in the first week, ease through the second and become occasional by the second month. Hydration and physical activity help, and consider cutting back on coffee for a few weeks.

READ THE FULL ARTICLE

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vaping-cardiovascular-risk

For education only, and not a substitute for advice from your own physician. Sources include the AHA scientific statements (2022, 2023), Hajek (NEJM 2019), Berlowitz (Circulation 2022), Mohammadi (ATVB 2022), Olmedo (EHP 2018), Salazar (ACS Cent Sci 2025), the CDC (2020), Blount (NEJM 2020) and the Surgeon General.

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