

NICOTINE: WHAT THE RESEARCH TELLS US

Correcting common myths with evidence from peer-reviewed research and harm reduction experts

MYTH: “NICOTINE CAUSES CANCER.”

Reality: Nicotine isn't considered a primary carcinogen in humans. The major cancer risk from smoking comes from combustion products, not from nicotine itself.

Weigner et al. (2022). *Nicotine & Tobacco Research*, 24(8), 1264–1272.

MYTH: “ALL NICOTINE PRODUCTS ARE EQUALLY RISKY – E-CIGS, POUCHES, NRT = CIGARETTES.”

Reality: There is a continuum of risk. Combustion (cigarette smoke) produces most of the disease-causing chemicals. Non-combustible nicotine products (NRT, some ENDS, snus) generally carry lower risk than smoked tobacco, though not risk-free.

Boyd, C. (2025, May 15). *Beyond nicotine replacement therapy: Smoking cessation for older Americans*. R Street Institute.

MYTH: “NICOTINE REPLACEMENT THERAPY (NRT) IS DANGEROUS/AS HARMFUL AS SMOKING.”

Reality: NRT is substantially safer than smoking and removes exposure to combustion products.

Boyd, C. (2025, May 15). *Beyond nicotine replacement therapy: Smoking cessation for older Americans*. R Street Institute.

MYTH: “NICOTINE IS HARMLESS.”

Reality: Nicotine is pharmacologically active and addictive; it has physiological effects (heart rate, blood pressure) and can be harmful in some contexts, but “not a major direct cause of cancer” is an important distinction.

Boyd, C. (2025, June 1). *Can nicotine slow age-related cognitive decline?*. R Street Institute.

MYTH: “NICOTINE CAUSES HEART DISEASE AND STROKES.”

Reality: Nicotine contributes acutely (increases heart rate/blood pressure) and can stress the cardiovascular system, but most long-term cardiovascular damage from smoking is from other by-products of combustion.

Boyd, C. (2025, June 1). *Can nicotine slow age-related cognitive decline?*. R Street Institute.

MYTH: “BELIEVING NICOTINE CAUSES CANCER HELPS PEOPLE QUIT (SCARING THEM).”

Reality: Overgeneralized harm perceptions about nicotine can backfire — they may discourage switching to less-harmful noncombustible options and reduce use of NRT.

Weigner et al. (2022). *Nicotine & Tobacco Research*, 24(8), 1264–1272.

MYTH: “NRT AND NON-COMBUSTIBLE NICOTINE PRODUCTS AREN'T APPROPRIATE FOR OLDER SMOKERS.”

Reality: For older adults who smoke, NRT and some non-combustible products can meaningfully reduce exposure to harmful combustion products and increase quit success — but access, coverage, design/usability, and clinician engagement matter.

Boyd, C. (2025, May 15). *Beyond nicotine replacement therapy: Smoking cessation for older Americans*. R Street Institute.

FOR MORE RESOURCES, VISIT [HARMREDUCTION.ORG](https://harmreduction.org)

**NATIONAL
HARM REDUCTION
COALITION**