

## Chapter 20

# Tobacco

1. The Health Risks of Tobacco Use
2. Choosing to Live Tobacco-Free
3. Promoting a Smoke-Free Environment

#OnedayIwokeup #Doppitup

## Lesson 1 — The Health Risks of Tobacco Use

Tobacco use remains the **leading cause of preventable death and disability** in the United States, killing more than **480,000 Americans every year** — more than alcohol, car accidents, firearms, and illegal drugs combined. About **9 out of 10** adult smokers started as teenagers.

Tobacco smoke contains over **7,000 chemicals**, with at least **70 known carcinogens**. Three of the most harmful: **Tar** (destroys cilia and alveoli, coats lung tissue), **Carbon monoxide** (binds to hemoglobin, depriving organs of oxygen), and **Nicotine** (highly addictive stimulant that rewires the brain's reward pathways).

*Tobacco now costs the United States approximately \$600 billion annually in healthcare and lost productivity — updated from textbook's \$167 billion figure.*

## Lesson 2 — Choosing to Live Tobacco-Free

Teen tobacco use has reached a **25-year low**. In 2024, only about **5.9%** of middle and high school students reported current use of any tobacco product — down dramatically from the 26% figure in the original textbook. Traditional cigarette smoking is at an all-time low of just **1.4%**.

The federal minimum age to purchase tobacco products is now **21** (raised from 18 in December 2019 by the Tobacco 21 law).

## Lesson 3 — Promoting a Smoke-Free Environment

### E-Cigarettes/Vaping — The Biggest New Topic

E-cigarettes (vapes, JUUL) are now the **most commonly used tobacco product among youth** — not mentioned at all in the 2011 textbook. They heat a liquid containing nicotine, flavorings, and other chemicals to create an aerosol. E-cigarette aerosol contains nicotine, ultrafine particles, heavy metals (lead, nickel), and volatile organic compounds.

■ *E-cigarettes are NOT safe. They are not FDA-approved smoking cessation devices. Nicotine in any form damages the developing adolescent brain, affecting attention, learning, mood, and impulse control.*

Youth vaping has declined significantly — from a peak of 5 million in 2019 to about **1.63 million** (2024). But 1 in 4 youth who vape does so daily, indicating serious nicotine addiction.

## Chapter Vocabulary

### Lesson 1

<b>Addictive drug</b>	A substance that causes physiological or psychological dependence
<b>Nicotine</b>	The addictive stimulant drug found in all tobacco products; also present in most e-cigarettes
<b>Carcinogen</b>	A cancer-causing substance; tobacco smoke contains dozens of known carcinogens
<b>Tar</b>	The thick, sticky residue produced when tobacco burns; destroys cilia and alveoli
<b>Carbon monoxide</b>	A colorless, odorless poisonous gas in tobacco smoke that displaces oxygen in the blood
<b>Leukoplakia</b>	Thickened, white, leathery patches inside the mouth caused by smokeless tobacco use

### Lesson 2

<b>Nicotine withdrawal</b>	The physical and psychological symptoms that occur when a tobacco user stops using nicotine
<b>Nicotine substitutes</b>	Products (patches, gum, lozenges) that deliver controlled doses of nicotine to ease withdrawal

### Lesson 3

<b>Environmental tobacco smoke (ETS)</b>	Air contaminated by tobacco smoke; also called secondhand smoke
<b>Mainstream smoke</b>	Smoke exhaled from a smoker's lungs
<b>Sidestream smoke</b>	Smoke from the burning end of a cigarette; contains higher concentrations of toxic substances