

Chapter 25

Noncommunicable Diseases and Disabilities

1. Cardiovascular Disease
2. Cancer
3. Allergies, Asthma, Diabetes, and Arthritis
4. Physical and Mental Challenges

#OnedayIwokeup #Doppitup

Lesson 1 — Cardiovascular Disease

CVD is the **#1 cause of death** in the U.S. — in 2023, **919,032** people died from cardiovascular disease (1 in every 3 deaths). Nearly **46.7%** of U.S. adults have high blood pressure (updated from textbook's 'one-third').

<p>■ Heart Attack</p>	<p>Blocked blood supply damages heart muscle. Warning: pressure/squeezing in chest; pain spreading to arms, neck, jaw. CALL 911. Every 40 seconds someone in the U.S. has a heart attack.</p>
<p>■ Stroke</p>	<p>Blood flow to brain interrupted. Use FAST: Face drooping, Arm weakness, Speech difficulty, Time to call 911. Mechanical thrombectomy (catheter to remove clot) is a major advance since 2011.</p>
<p>■ Hypertension</p>	<p>Stage 1 begins at 130/80 (lowered threshold from 2017 AHA guidelines); often the 'silent killer'</p>
<p>■ Atherosclerosis</p>	<p>Fatty plaque builds on artery walls. Risk factors teens can control: tobacco, high blood pressure, high cholesterol, inactivity.</p>

Lesson 2 — Cancer

Cancer is the **second leading cause of death** in the U.S. — approximately **620,000 American lives** each year. Colorectal cancer rates are rising sharply in adults under 50 — screening age lowered to **45**.

Modern Cancer Treatments — Major Updates

Targeted therapy	Drugs designed to attack specific molecular features of cancer cells — much more precise than chemotherapy
Immunotherapy	Enlists the patient's own immune system to recognize and attack cancer cells (checkpoint inhibitors)
CAR T-cell therapy	Patient's immune cells genetically engineered to hunt cancer cells — remarkable results in blood cancers
Precision medicine	Tailoring treatment to the specific genetic profile of a patient's tumor

Lesson 3 — Allergies, Asthma, Diabetes, and Arthritis

Asthma affects approximately **28 million Americans** (nearly double older estimates). For Type 2 diabetes: **GLP-1 receptor agonists** (Ozempic/Wegovy) have transformed treatment — the most significant advance in decades. For rheumatoid arthritis: **biologic medications** can dramatically slow or halt joint destruction.

Lesson 4 — Physical and Mental Challenges

Intellectual disability — the current medical, legal, and social standard — replaces the outdated term 'mental retardation' (through Rosa's Law, signed in 2010). Modern prosthetics, brain-computer interfaces, and exoskeletons have transformed what's possible for people with motor impairments.

Chapter Vocabulary

Lesson 1

Noncommunicable disease	A disease that cannot be spread from person to person
Cardiovascular disease (CVD)	Any disease affecting the heart or blood vessels; the leading cause of death in the United States
Hypertension	Chronically elevated blood pressure (130/80 or above); often called the 'silent killer'
Atherosclerosis	A disease in which fatty plaques accumulate on artery walls, narrowing and hardening the arteries
Stroke	An acute injury in which blood flow to part of the brain is interrupted; requires immediate emergency response

Lesson 2

Cancer	A disease characterized by the uncontrolled growth and spread of abnormal cells
Tumor	An abnormal mass of tissue; may be benign (non-cancerous) or malignant (cancerous)
Metastasis	The spread of cancer from its original location to other parts of the body
Remission	A period when cancer is undetectable or under control

Lesson 3

Allergy	An immune system overreaction to a normally harmless substance (allergen)
Asthma	A chronic inflammatory condition in which the airways periodically narrow, causing difficulty breathing
Diabetes	A chronic disease in which the body cannot properly regulate blood glucose

Lesson 4

Disability	Any physical or mental impairment that limits a person's ability to perform major life activities
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Intellectual disability	Significantly below-average cognitive functioning present from birth or early childhood
Americans with Disabilities Act (ADA)	The 1990 federal law prohibiting discrimination against people with disabilities