

Chapter 1: Introduction to Anatomy & Physiology

- Levels of Structure
- Characteristics of the Living Body
- Metabolism
- Movement and Other Characteristics
- Homeostasis

Chapter 2: The Chemical Basis of Anatomy & Physiology

- Atoms
- Molecules
- Proteins

Chapter 3: Cells & Cell Physiology

- Cell Structure
- The Nucleus
- Cells and Energy
- Enzymes
- Mitosis and Cell Reproduction

Chapter 4: Tissues

- Epithelial Tissue (*Understand Table 4.1*)
- Function of Epithelial Tissue
- Types of Glands
- Connective Tissue
- Connective Tissue Proper Cartilage
- Bone
- Muscle and Nerve Tissue

Chapter 5: The Integumentary System

- The Skin
- Functions of the Integumentary System
- Structure of the Skin (*Understand Table 5.3*)
- Glands

Chapter 6: Bones & Joints

- Bone
- Bone Tissue
- Joints (*Articulations*)
- Joint Movements

Chapter 7: The Skeletal System

- The Axial Skeleton
- The Cranium
- The Vertebral Column
- Understand Figure 7.8

Chapter 8: Muscle Physiology

- Understand Table 8.1
- Chemistry of Muscle Contraction
- Smooth and Cardiac Muscle Function
- Smooth Muscle
- Cardiac Muscle

Chapter 9: The Muscles

- Muscles of the Body Extremities
- Muscles of Breathing

Chapter 10: The Nervous System

- Basic Structure and Function
- Basic Organization
- Glia Cells
- Neurons
- The Myelin Sheath
- Nerves and Gaglia
- Nerve physiology
- Nerve Activity
- The Synapse

Chapter 11: The Nervous System

- Organization
- The Central Nervous System
- The Spinal Cord
- The Brain
- The Cerebrum
- The Cerebellum
- The Brain Stem
- The Peripheral Nervous System
- The Autonomic System

Chapter 12: The Special Senses

- The Eye
- The Ear
- Taste
- Smell

Chapter 13: The Endocrine System

- Pituitary Gland
- Thyroid Gland
- Parathyroid Gland
- Pancreas
- Adrenal Glands
- Other Endocrine Glands

Chapter 14: The Blood

- Plasma
- Plasma Proteins
- Red Blood Cells
- White Blood Cells
- Types of White Blood Cells

Chapter 15: The Cardiovascular System

- The Heart
- Chambers and Vessels of the Heart
- The Heart Cycle
- Blood Pressure and Pulse

Chapter 16: The Lymphatic & Immune Systems

- The Lymphatic System
- Lymphatic Vessels
- Lymph Nodes
- The Thymus
- The Spleen
- Lymph
- The Immune System
- Development of the Immune System
- Antigens
- The Immune Process
- Cell-Mediated Immunity
- Antibody-Mediated Immunity

Chapter 17: The Respiratory System

- Anatomy of the Respiratory System
- The Lungs
- Physiology of Respiration
- Mechanism for Breathing
- Understand Figure 17.7

Chapter 18: The Digestive System

- The Gastrointestinal Tract
- The Esophagus
- The Stomach
- The Duodenum
- The Large Intestine
- The Accessory Glands
- The Liver
- The Pancreas

Chapter 19: Metabolism & Nutrition

- Carbohydrate Metabolism
- Physiology of Glucose Metabolism

- Fat and Protein Metabolism
- Catabolism of fats
- Anabolism of Fat
- Protein Metabolism
- Other Aspects of Metabolism
- Mineral Metabolism
- Vitamin Metabolism
- Temperature Regulation

Chapter 20: The Urinary System

- The Kidneys
- Accessory Structures
- Other Excretory Organs

Chapter 21: Fluid, Electrolyte, & Acid/Base Balance

- Body Fluids
- Fluid Compartments
- Electrolyte Balance

Chapter 22: The Male Reproductive System

- The Testes
- Understand Figure 22.1
- Male Hormone

Chapter 23: The Female Reproductive System

- Understand Figure 23.1
- The Ovaries and Accessory Organs
- The Ovaries
- The Fallopian Tubes
- The Uterus
- Understand Table 23.1
- The Vagina
- The External Genitalia
- The Mammary Glands
- Female Reproductive Physiology
- The Menstrual Cycle