

**Christian Academy of Natural Health**

# HUMAN ANATOMY

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## Human Anatomy: Class Introduction

In this course, you will study basic human anatomy. Anatomy is the study of body structure. Physiology is the study of body functions. Anatomy and physiology are two subject matter areas that are vitally important to Christian herbalists. Do your best to achieve the objectives of this course. As a result, you will be better able to perform your job as a Certified Christian Herbalist (CH).

### **Course Components:**

This course consists of 11 lessons and an examination. The lessons are:

Lesson 1: Introduction to Human Anatomy.

Lesson 2: Tissues of the Body.

Lesson 3: The Human Integumentary and Fascial Systems.

Lesson 4: The Human Skeletal System.

Lesson 5: The Human Muscular System.

Lesson 6: The Human Digestive System.

Lesson 7: The Human Respiratory System and Breathing.

Lesson 8: The Human Urogenital Systems.

Lesson 9: The Human Cardiovascular and Lymphatic Systems.

Lesson 10: The Human Endocrine System.

Lesson 11: The Human Nervous System.

### **Study Suggestions:**

Here are some suggestions that may be helpful to you in completing this course:

- 1) Read and study each lesson assignment carefully and take good notes.
- 2) After reading and studying the first lesson assignment, work the lesson exercises for the first lesson.
- 3) Refer to the text as you complete the lesson exercises.
- 4) When you have completed the exercises to your satisfaction, compare your answers with the solution sheet located at the end of the lesson.
- 5) Reread the referenced material for any questions answered incorrectly.
- 6) After you have successfully completed one lesson, go to the next lesson and repeat the above procedures.
- 7) When you have completed all of the lessons, complete the online test for this course.

# 1. Introduction to Anatomy

**TEXT ASSIGNMENT** Paragraphs 1-1 through 1-15.

**LESSON OBJECTIVES** After completing this lesson, you should be able to:

1-1. Define anatomy.

1-2. Characterize individuals according to body type and state clinical significance.

1-3. Identify kinds of anatomical studies.

1-4. Trace the organization of the human body into cells, tissues, organs, organ systems, and the total organism.

1-5. List the parts of an upper member and the parts of a lower member.

1-6. Identify a reason for studying terminology.

1-7. Define the anatomical position.

1-8. Given drawings illustrating planes and directions, name the planes and directions.

1-9. Define the cell and match names of major components with drawings representing them.

**SUGGESTION** After completing the assignment, complete the exercises at the end of this lesson. These exercises will help you to achieve the lesson objectives.

## Section I. GENERAL

### 1-1. DEFINITIONS

a. Anatomy is the study of the structure of the body. Often, you may be more interested in functions of the body. Functions include digestion, respiration, circulation, and reproduction. Physiology is the study of the functions of the body.

b. The body is a chemical and physical machine. As such, it is subject to certain laws. These are sometimes called natural laws. Each part of the body is engineered to do a particular job. These jobs are functions. For each job or body function, there is a particular structure engineered to do it.

c. In the laboratory, anatomy is studied by dissection (SECT = cut, DIS = apart).

### 1-2. BODY TYPES

No two human beings are built exactly alike, but we can group individuals into three major categories. These groups represent basic body shapes.

MORPH = body, body form

ECTO = all energy is outgoing

ENDO = all energy is stored inside  
MESO = between, in the middle  
ECTOMORPH = slim individual  
ENDOMORPH = broad individual  
MESOMORPH = body type between the two others, "muscular" type

Ectomorphs, slim persons, are more susceptible to lung infections. Endomorphs are more susceptible to heart disease.

### 1-3. NOTE ON TERMINOLOGY

- a. Each profession and each science has its own language. Lawyers have legal terminology. Physicians and other medical professions and occupations have medical terminology. Accountants have debits, credits, and balance sheets. Physicists have quanta and quarks. Mathematicians have integrals and differentials. Mechanics have carburetors and alternators. Educators have objectives, domains, and curricula.
- b. To work in a legal field, you should know the meaning of quid pro quo. To work in a medical field, you should know the meanings of terms such as proximal, distal, sagittal, femur, humerus, thorax, and cerebellum.

### 1-4. KINDS OF ANATOMICAL STUDIES

- a. Microscopic anatomy is the study of structures that cannot be seen with the unaided eye. You need a microscope.
- b. Gross anatomy by systems is the study of organ systems, such as the respiratory system or the digestive system.
- c. Gross anatomy by regions considers anatomy in terms of regions such as the trunk, upper member, or lower member.
- d. Neuroanatomy studies the nervous system.
- e. Functional anatomy is the study of relationships between functions and structures.

### 1-5. ORGANIZATION OF THE HUMAN BODY

The human body is organized into cells, tissues, organs, organ systems, and the total organism.

- a. Cells are the smallest living unit of body construction.
- b. A tissue is a grouping of like cells working together. Examples are muscle tissue and nervous tissue.
- c. An organ is a structure composed of several different tissues performing a particular function. Examples include the lungs and the heart.
- d. Organ systems are groups of organs which together perform an overall function. Examples are the respiratory system and the digestive system.
- e. The total organism is the individual human being. You are a total organism.

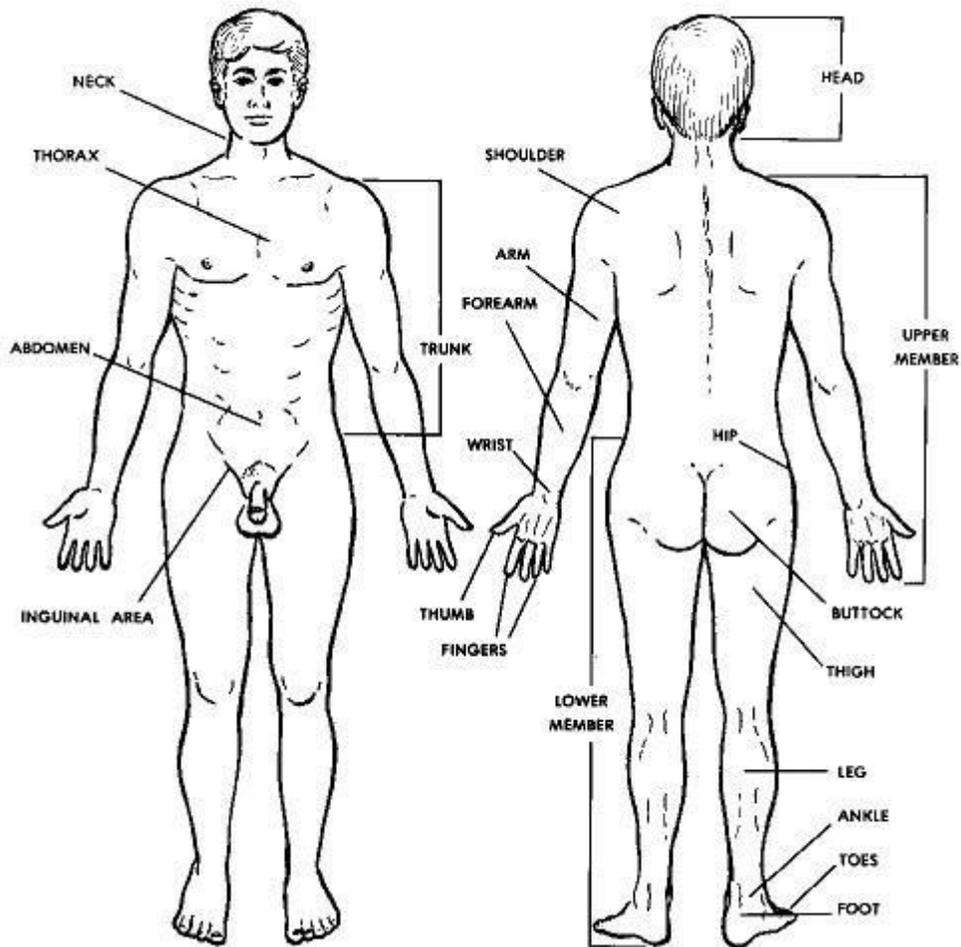


Figure 1-1. Regions of the human body.

### 1-6. REGIONS OF THE HUMAN BODY (FIGURE 1-1)

The human body is a single, total composite. Everything works together. Each part acts in association with ALL other parts. Yet, it is also a series of regions. Each region is responsible for certain body activities. These regions are:

- a. Back and Trunk. The torso includes the back and trunk. The trunk includes the thorax (chest) and abdomen. At the lower end of the trunk is the pelvis. The perineum is the portion of the body forming the floor of the pelvis. The lungs, the heart, and the digestive system are found in the trunk.

**This concludes this course lesson sample.**