

Ch.1 what anatomy really means assignment



Chapter 1 Overview Notes: You are to read the text's chapter and look through the Powering notes on Blackboard as well. Anatomy literally means "to cut" – Tommy and "apart" – Ana, since in the early days anatomists used cadavers to cut apart and see inside. Physiology literally means the "study of nature" so we study the nature or functions of the body systems.

We have to understand that the structure of any body part – muscle cell contracts the organ, protein fibers contract the muscle cell – all the way down to the molecular level, will affect the function of that part or molecule!

We learn the anatomy of the body, even at the cellular level, in order to understand their functions! Imagine that you are entering a bicycle race, and must choose between two bikes: a sleek racing bike or a heavy-duty bike, guaranteed to handle any terrain. Both vehicles are unmistakably bicycles, but the specific structure of each allows it to perform a specific function. Which bike do you choose? What do you need to know before making a decision? So we see that physiology, too, can focus at the subculture, cellular, tissue, organ, organ system, or multinational system level.

If one loses its function then all other levels above that could be affected! For instance, a single genetic change in DNA at the molecular level in blood's hemoglobin can cause sickle-cell anemia, which causes several organ and system level symptoms! Through studying both anatomy and physiology, we will gain the foundational understanding to move forward into practical and clinical learning. You'll see and study the organ systems in Figure 1-2, the anatomy is there as well as basic functions for you to preview.

Also, to help you, in the Powering notes there is Table of major functions for each system. At the end of each system's chapter you will also see (and should review) the effects each system has on the others. This should help you get a big picture view of A & P as we cover the details. Know life's characteristics or required processes that maintain the body health. See PPTP notes for hints. "Homeostasis" is a state when systems are working together to maintain a stable environment. * Home" meaner same/like * "-stasis" meaner stable (NOT "NON-MOVING") * but we can't always be the same, or we'd be _? s sensor (receptor), control center, effector (maintains acceptable range around set-point) *** 2 ways of working* *** Negative feedback and Positive Feedback * Works like a thermostat Negative feedback meaner that whatever change (temperature) in the body homeostasis range causes a response (shiver or sweat) by the body to keep homeostasis, but that response can't keep going because we would get out of homeostasis in the opposite direction. So, once the response (shiver or sweat) to a change (temperature) gets us back into homeostasis, then the response is shut off "negated").

Think about the thermostatic control in a home's heating/cooling system in the same way. The heat will shut off once the room's temperature reaches the set-point on the thermostat. Homeostasis is a constant balancing act in the body. Think about balancing on one of those large exercise balls. As you balance, you never hold perfectly still; outstretched arms are continuously moving up and down, weight is continuously shifting from one side to the other. Keeping yourself from "falling off the ball" is the goal of homeostasis regulation.

It is our ability to respond correctly and rapidly too change in the internal environment that enables homeostasis regulation. Fill in the picture above with the key steps in the process of glucose storage after digesting a sugary meal.... Positive Feedback Mechanisms: Think about positive feedback as the domino effect?? once the domino begin to fall, the chain reaction causes each successive domino to fall until all have fallen. Once all have fallen then the response will stop, but not until then. There are two main examples of positive feedback.

Can you find them in the notes or in the book? We must learn proper anatomical terms and directions and sections in order to communicate effectively in clinical settings. However, if you are familiar with a term, you may get confused with a new way of using the term, so be careful! Find the anatomical landmarks (Figure 1-6) and regions (Figure 1-7) on your own bodies as you study the terms in the text. Two distinct regional systems are in use?? one classical, and the other in wide medical use. We will use the adjective form (in parentheses) of the word most widely used medically.

Check out the parts of the Lab List that are not listed in your textbook. You can find them listed in the PPTP notes. (see slide #48- costal, coal [sound the same but very different], etc.) Anatomical directions are more easily mastered if they are studied in opposing pairs. The paired terms (e. G. , proximal, distal) are relative to the point of origin you are using. Add these to your list, too (see Lab List) -> epistolary = same side of body; contractual = opposite side of body (like “ contradict” is opposing someone).

Companion Website: Use the labeling exercise for the nine abdominally sessions available online. It's self-correcting. * Practice questions: 1. A frontal section divides from halves 2. A societal section divides 3. A transverse section divides from halves Body cavities are lined with serous membranes that secrete a watery (serous) fluid that facilitates movement and shape changes of the viscera. The rest of the body, such as the limbs, is "solid" tissue, containing no cavities. The meditations is not a cavity but rather the region in the middle of the thoracic cavity. The meditations contains the pericardia cavity.

Cavities and Membranes – Read the text section and PPTP notes then try to better understand the concepts using this analogy- A peanut can be used to illustrate these concepts: The shell is the wall and the peanut is the organ located inside the cavity. The shiny tissue that lines the shell is equivalent to the parietal membrane, while the brown skin on the peanut is analogous to the visceral membrane. "Smaller Cavities" on your list (oral, nasal, orbital, tympanis, sinuses) are really "false" body cavities because they are lined/covered by mucous membranes (and open to exterior), not serous membranes.