

Human Body Orientation

Bio 230

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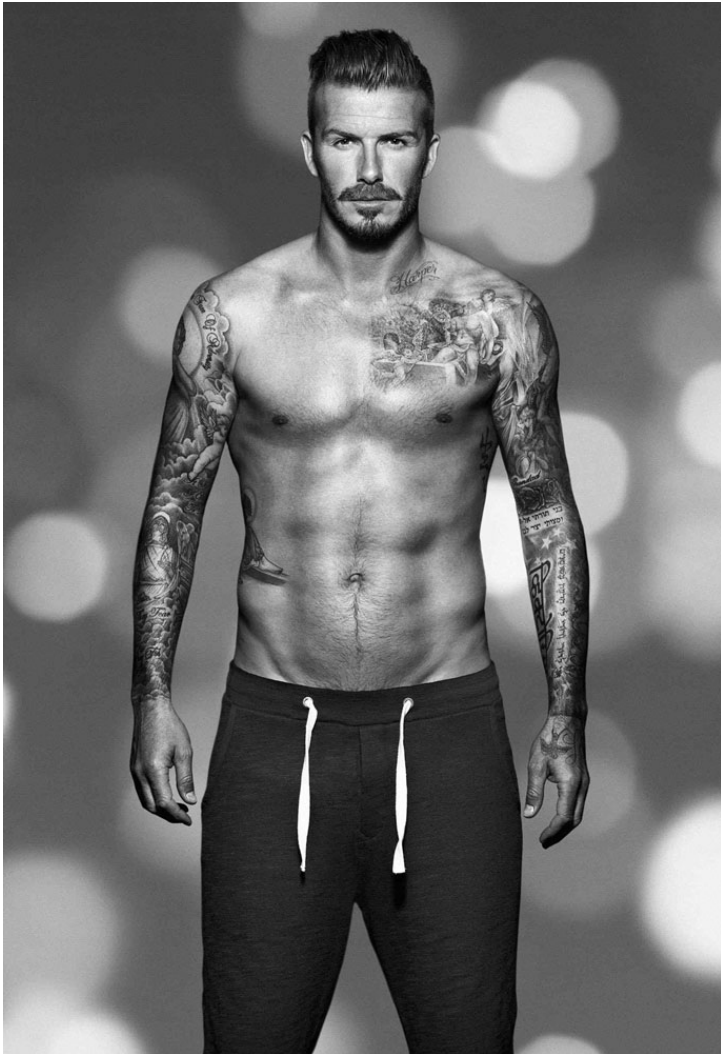


Holy Fire, Alex Grey, 1987, oil on linen, 224 x 90 in

ALEXGREY.COM

What is Anatomy?

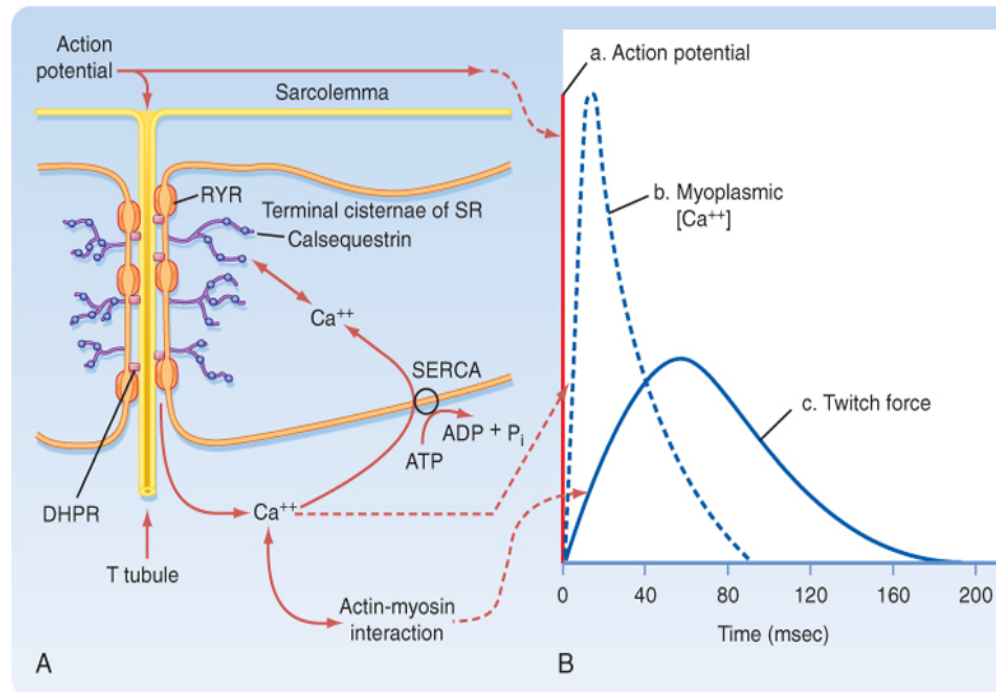
Anatomy is Structure; Form. How things are built



In this class we will be studying ANATOMY!!

What is Physiology?

Physiology is the study of Function-how things work



REMEMBER!!!!

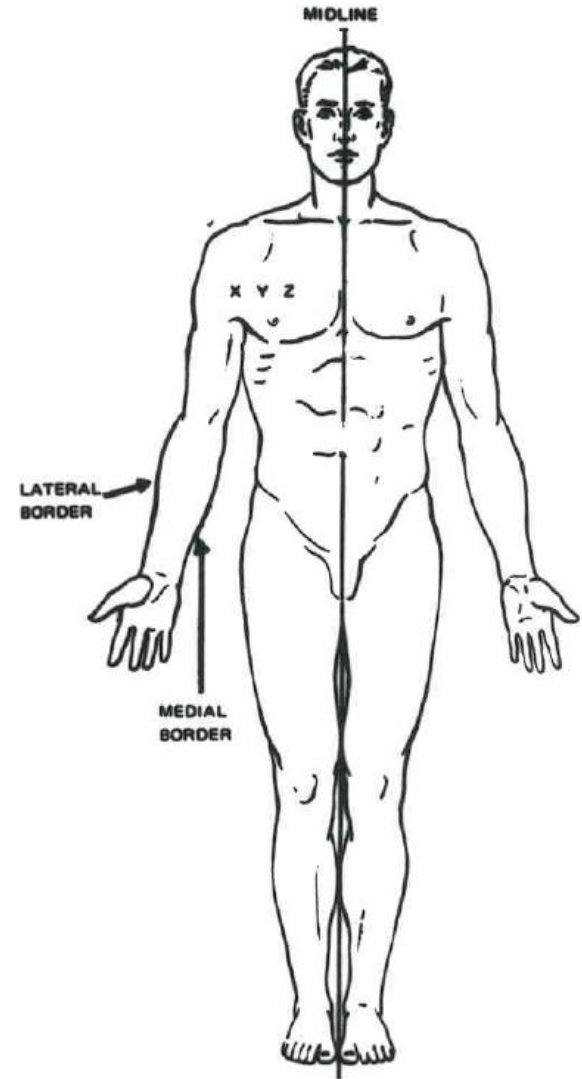
Form (anatomy) determines Function (physiology)



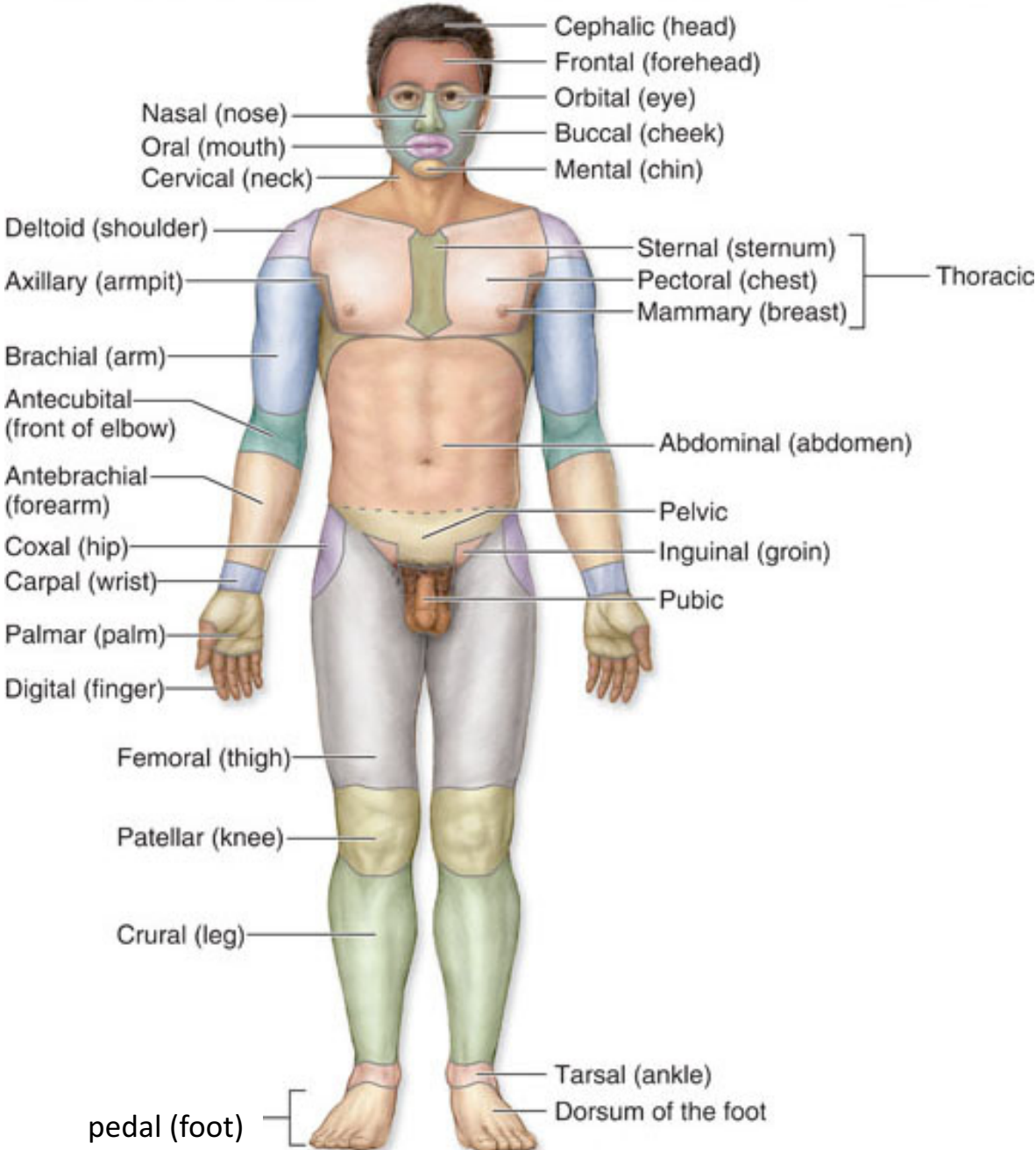
THE LANGUAGE OF ANATOMY is and has to be very precise. In order to avoid confusion and mistakes in professional environments, such as hospitals and health-related fields; to describe body parts and its exact locations, anatomists use anatomical terms; - in the study of anatomy, descriptions of any part of the human body assume that the body is in the correct

"ANATOMICAL POSITION":

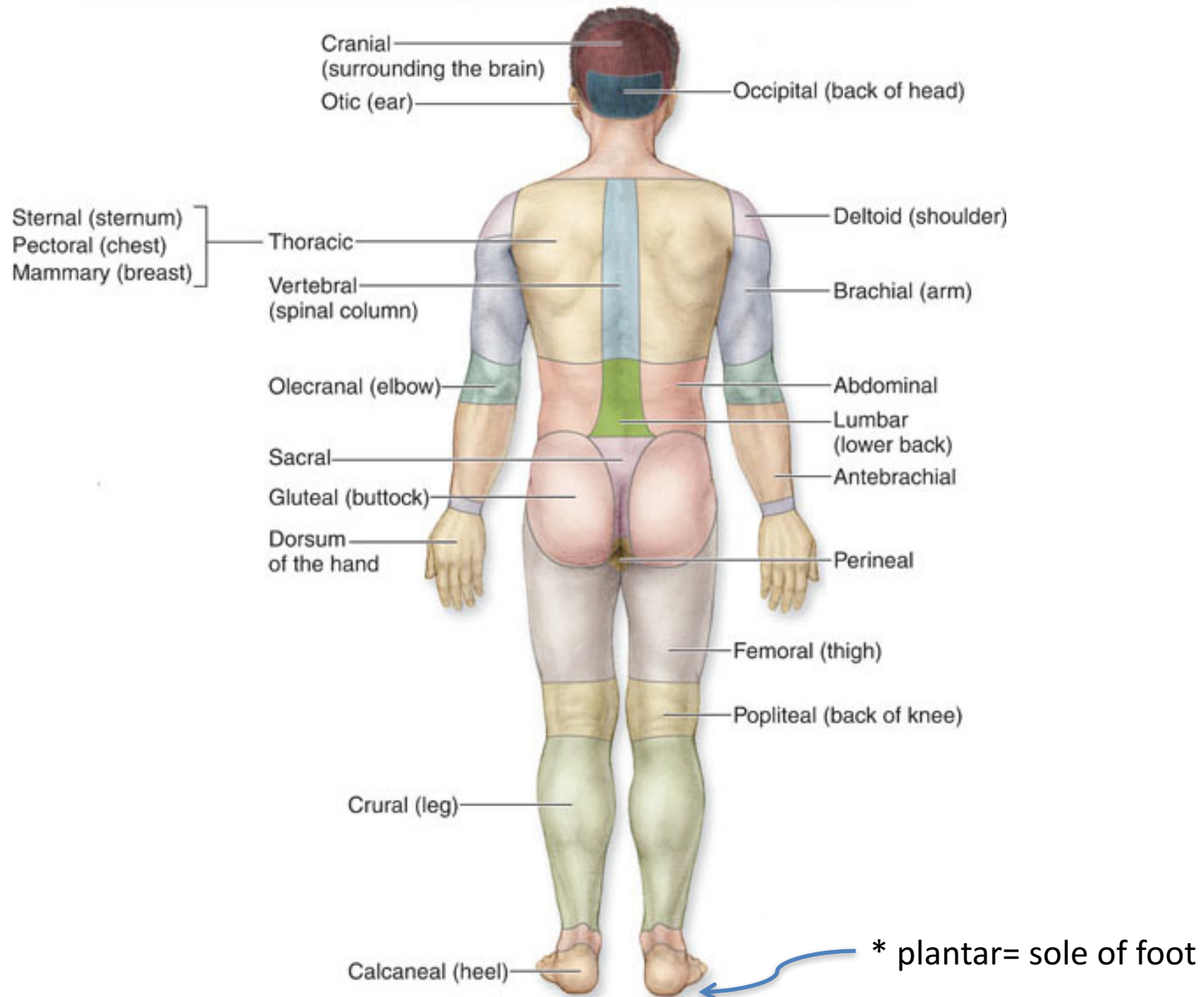
- the person stands erect facing the observer, with the head level, and the eyes facing forward; the feet are flat on the floor and directed forward, and the arms are at the sides with the palms turned forward.



Regional terms- see your lab exercise list for the ones you are responsible for!



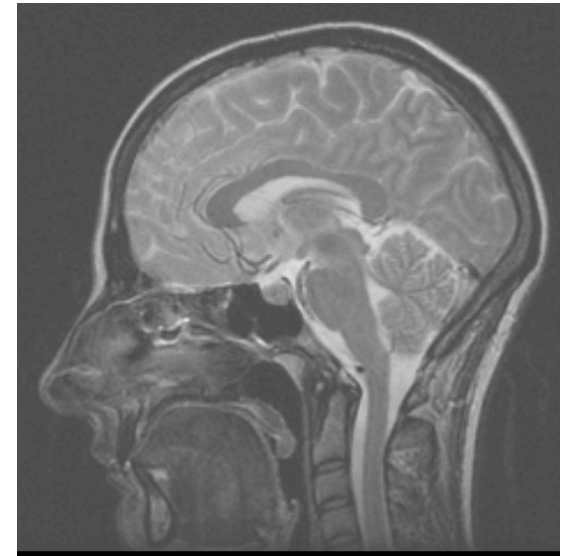
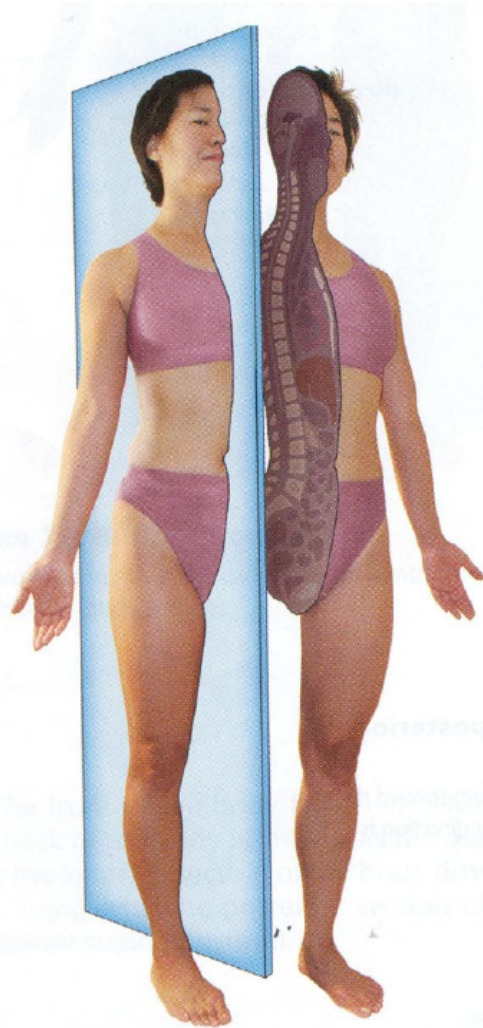
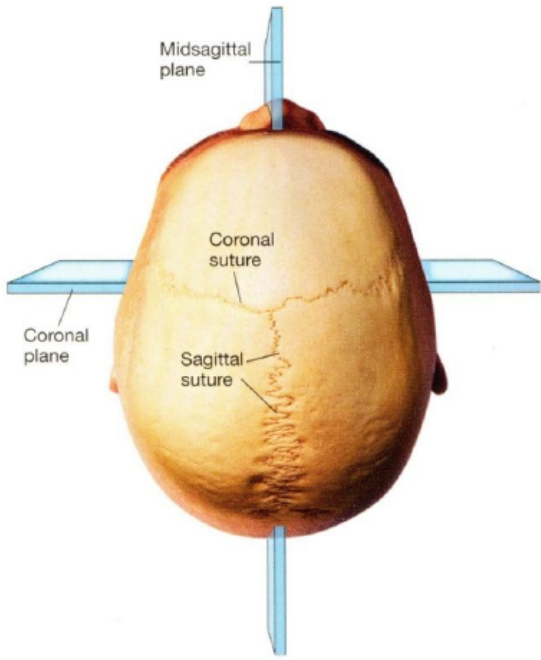
(a) Anterior view



(b) Posterior view

Body Planes:

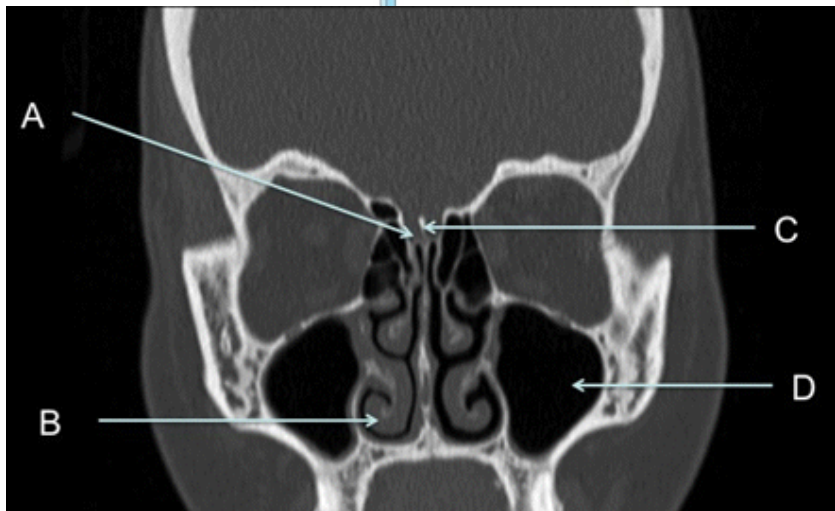
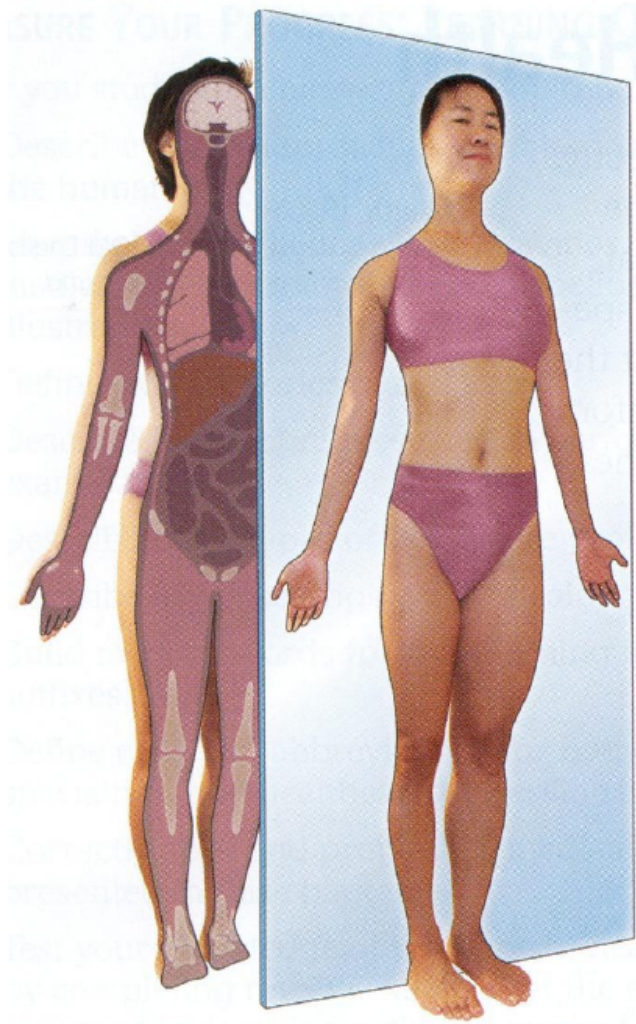
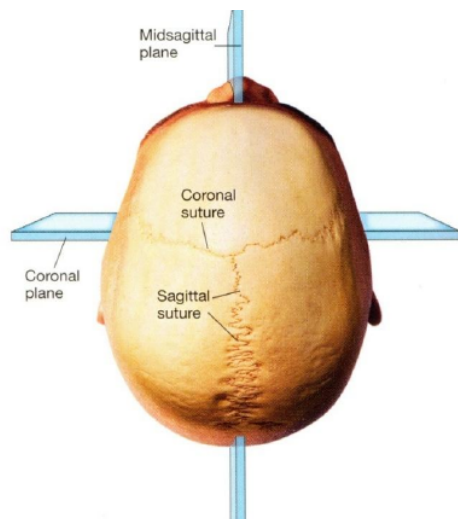
- Sagittal Plane- vertical planes divides body or organ into right and left portions. includes midsagittal (shown) and parasagittal (lateral to midline)



MRI head midsagittal image

Body Planes:

b. Frontal (Coronal) Plane -a vertical plane that divides the body or organ into an anterior and posterior section

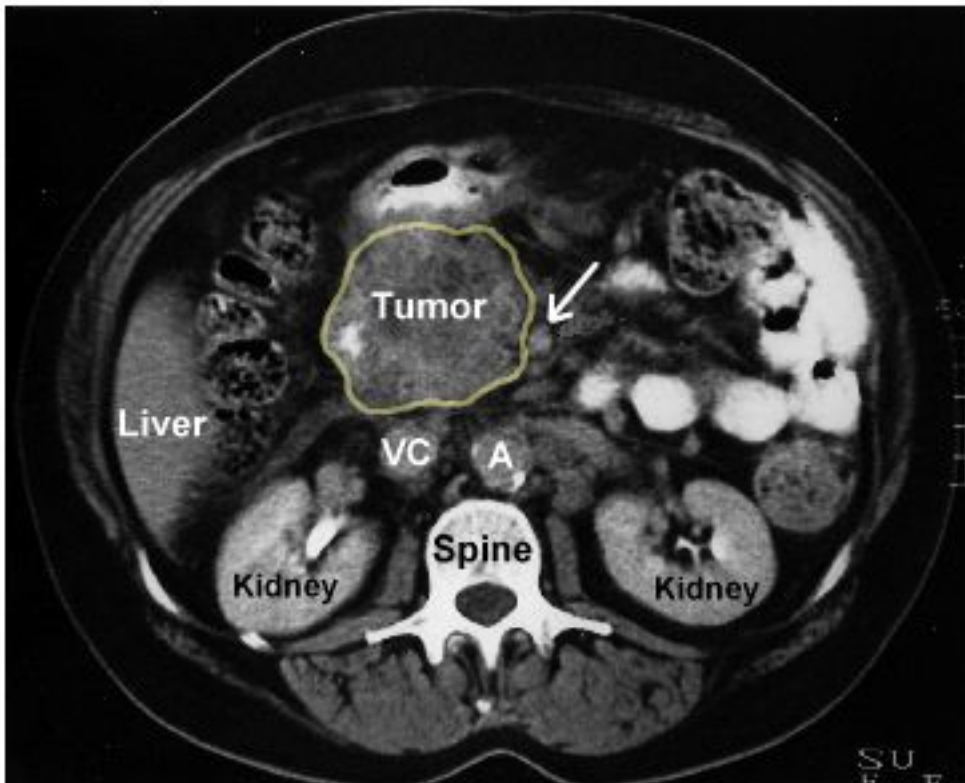


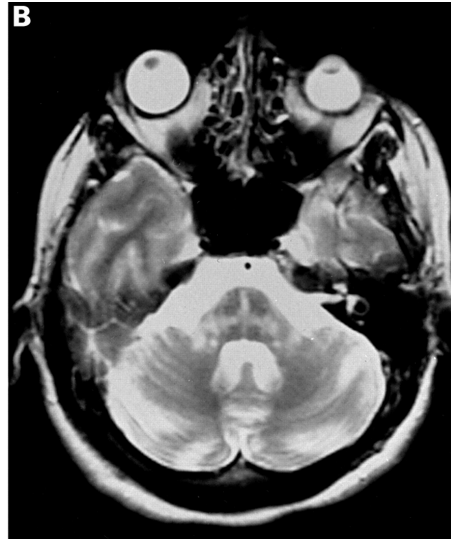
MRI head coronal (frontal) image

Body Planes:

c. Transverse (Horizontal) Plane – a horizontal plane that divides the body or organ into superior and posterior portions. Also referred to as a cross section.

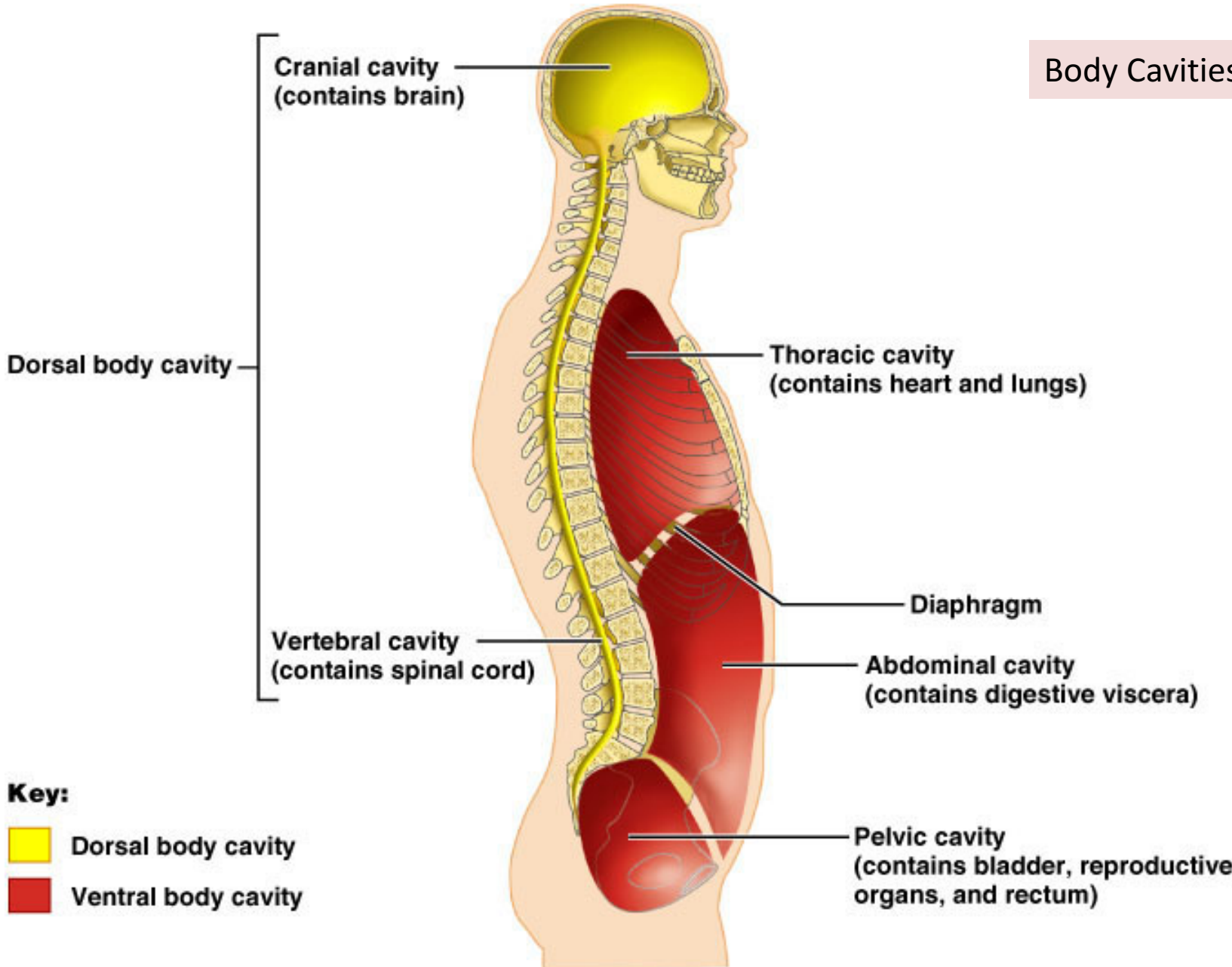
Transverse MRI image of abdomen



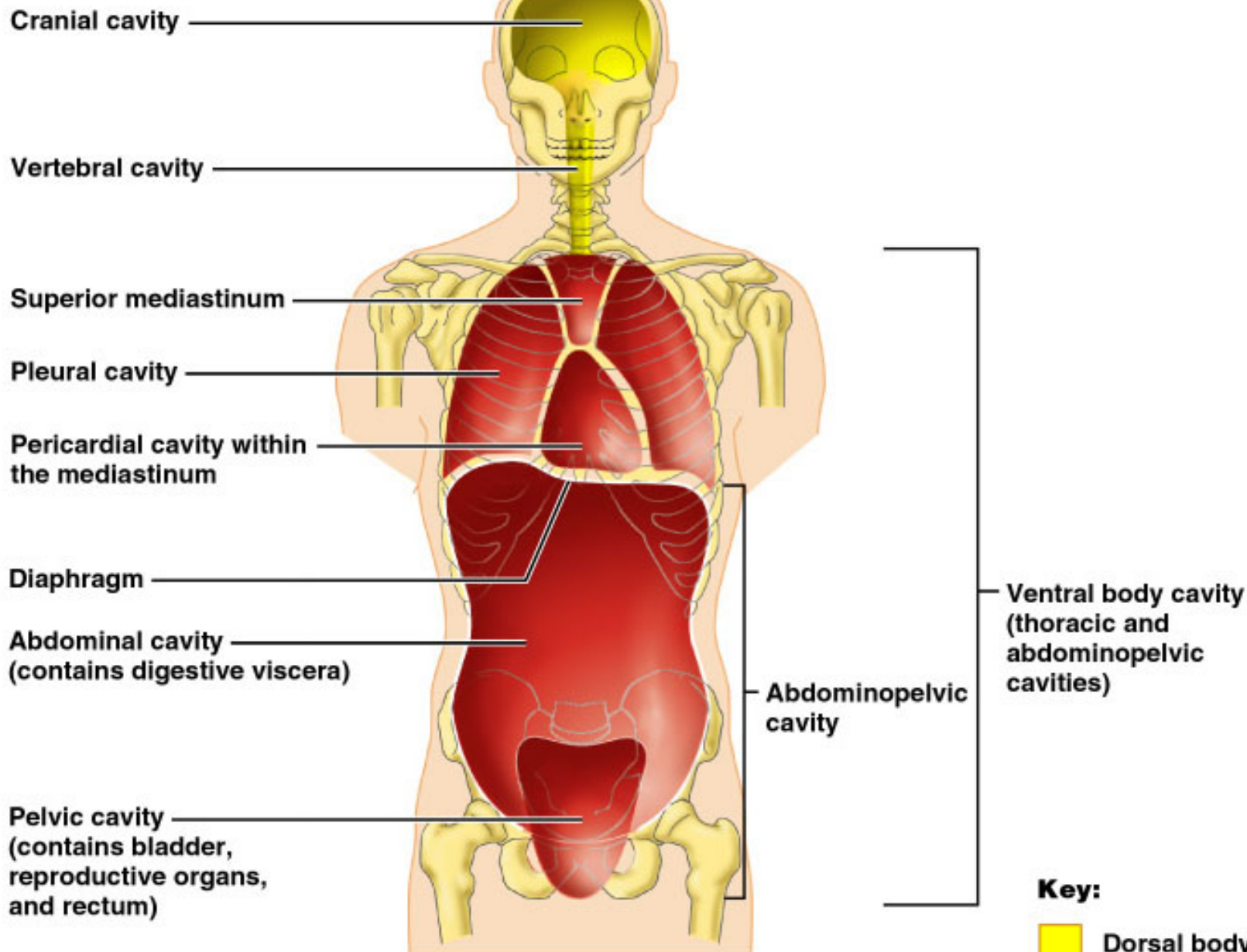


What planes are these images taken from?

Body Cavities



(a) Lateral view



(b) Anterior view

Serous Membranes in the Ventral Body Cavity

The walls of the ventral body cavity and the outer surface of the organs it contains are covered by a thin double layered membrane – the SEROSA.

The part of the membrane lining the cavity walls is called the PARIETAL SEROSA

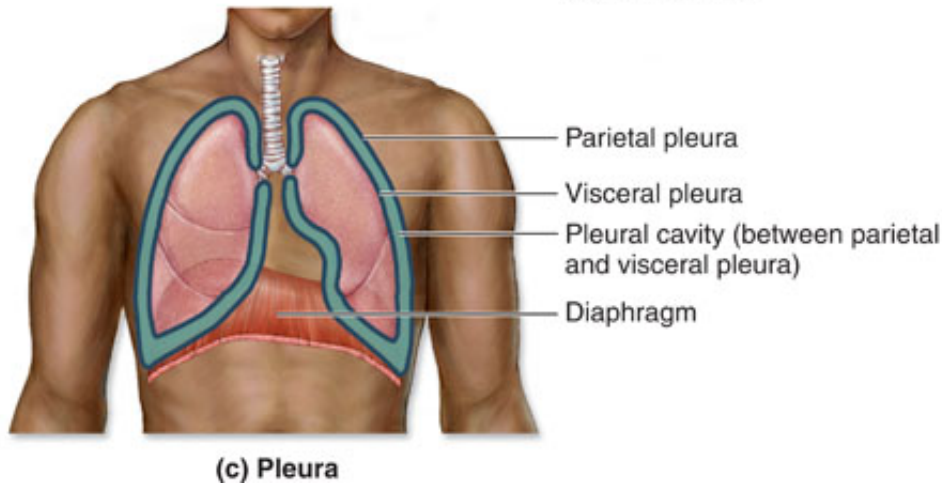
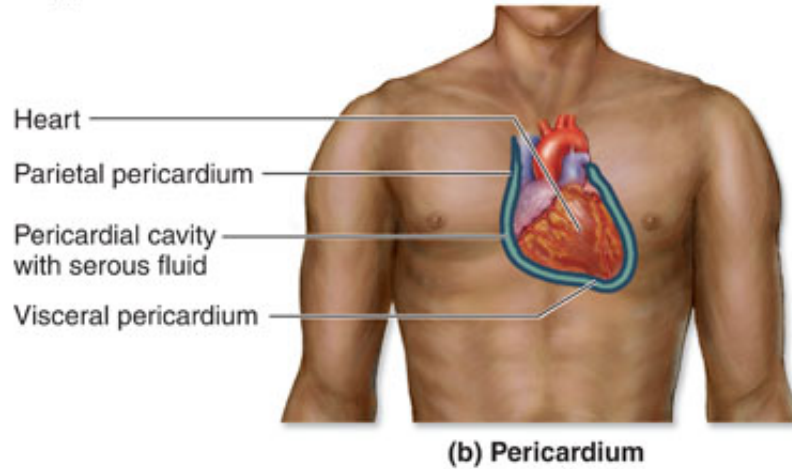
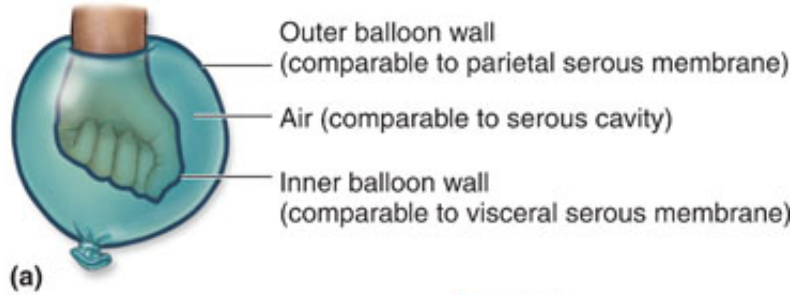
The part of the serosa lining the the organ(s) is called the VISCERAL SEROSA.

THE SPACE BETWEEN THE PARIETAL AND VISCERAL MEMBRANES IS THE “SEROUS CAVITY”- FILLED WITH SEROUS FLUID. WHAT IS THE FUNCTION OF SEROUS FLUID?

The serous membranes are names for the specific cavity and organs which they cover.

You are responsible for the following serosa.

1. parietal pericardium (lines the pericardial cavity): visceral pericardium (lines the heart)
2. parietal pleura (lines the pleural cavity): visceral pleura (lines the lungs)
3. parietal peritoneum (lines the abdominal cavity): visceral peritoneum (lines the abdominal organs)



Remember:
parietal = outside
visceral = next to the “visceral” organ.

1. Parietal pericardium:
Visceral pericardium
(pericardial cavity)
HEART
2. Parietal pleura
Visceral pleura
(pleural cavity)
LUNGS

What is **Pericarditis**?

What is Pleurisy (**Pleuritis**)?

Peritoneum-hard to visualize!

First, we will take a look at a sagittal section through the abdomen just to the right of the midline of the body.

The parietal peritoneum is colored bright blue and the visceral peritoneum is colored magenta.

gpc & lpc refer to the greater and lesser peritoneal cavities.

This cavity is filled with serous (lubricating) fluid.

We will learn more about the peritoneum when we learn about the digestive system. For now..try to visualize this serous membrane and how it forma a double layer membrane with an outside (parietal) layer and an inner (visceral layer), with the peritoneal cavity in-between.

What is peritonitis?

