



**DEPARTMENT OF ANESTHESIA TECHNIQUES
AL-MUSTAQBAL UNIVERSITY COLLEGE**

**First year
Human Anatomy practice
(Lecture 3)**

Basic structures in the body

By

Dr. Ebtighaa Abbas Albawy & M.Sc. Marwa Najeh

The objectives of this lecture:-

At the end of the lecture, you should be able to:-

- 1**-know what is the Fasciae and what their types?
- 2**-Identify the three types of muscle and be able to distinct between them.
- 3**-Know what is the joint and what their classification?
- 4**-enumerate types of bones according to their shape .



Fasciae:-is a membrane of connective tissue that invests the body organs and structures,;
can be divided into two types:-superficial and deep which lie between the skin and the underlying muscles and bones.

The **superficial fascia**, unites the Dermis of the skin to the underlying deep fascia.

The **deep fascia**, invests the muscles and other deep structures .

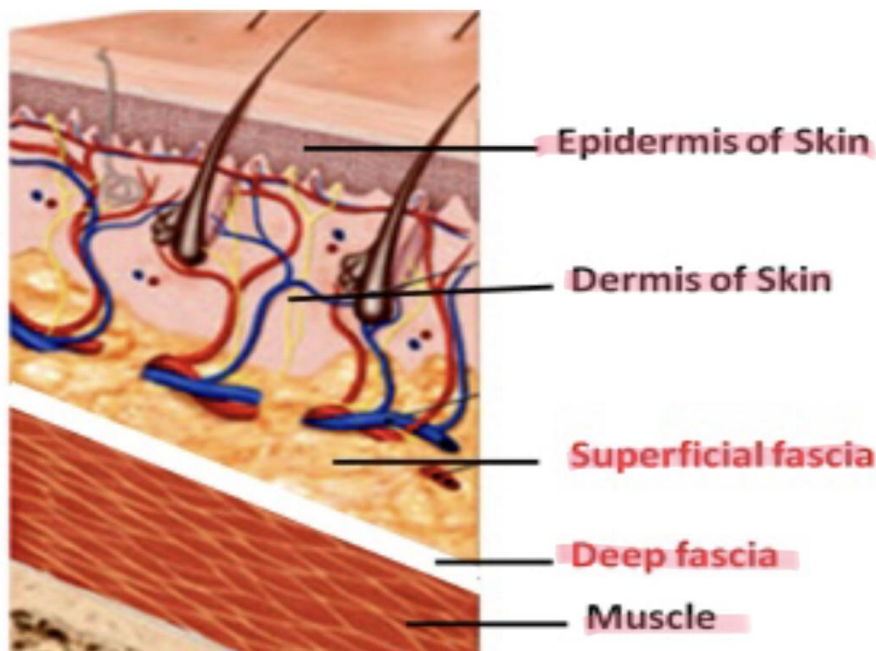


Figure (3.1)

Showing **layers of the skin** and two types of fasciae (**superficial fascia and deep fascia**) and underlying structure (**muscle**).

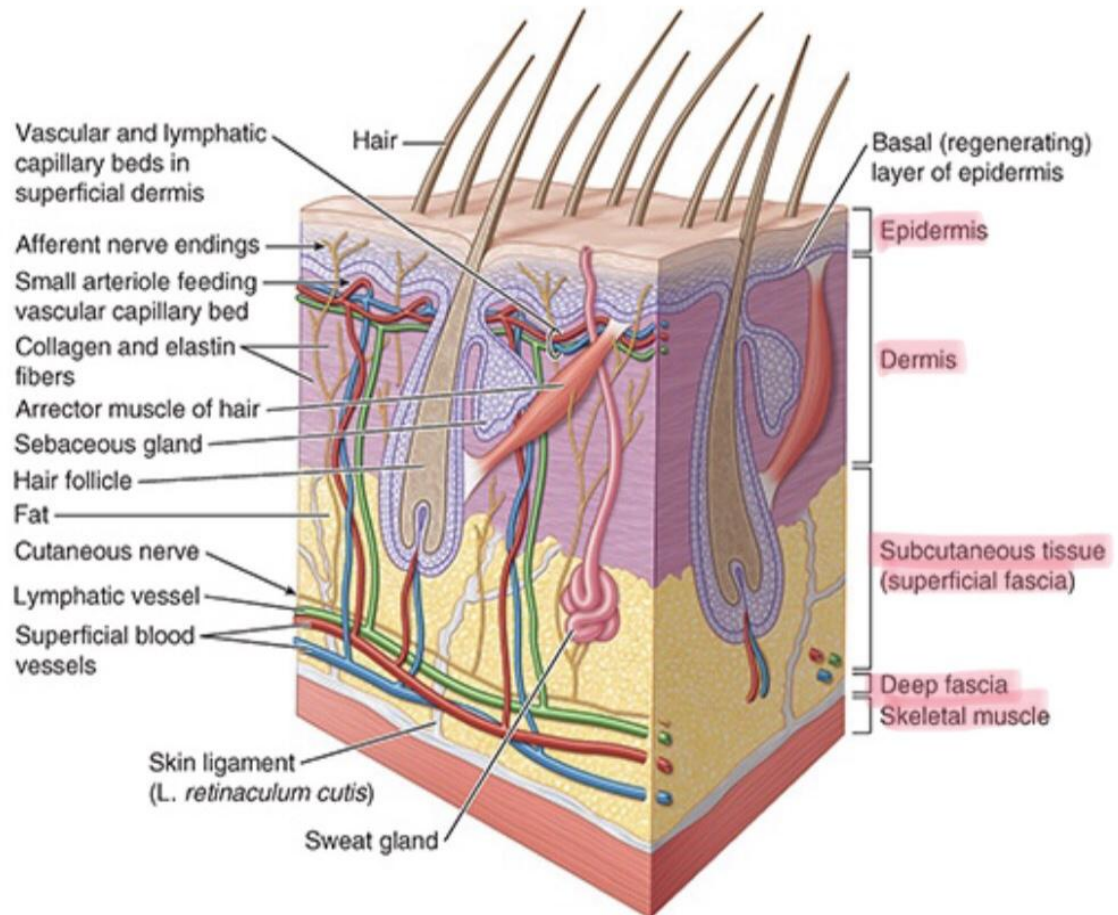
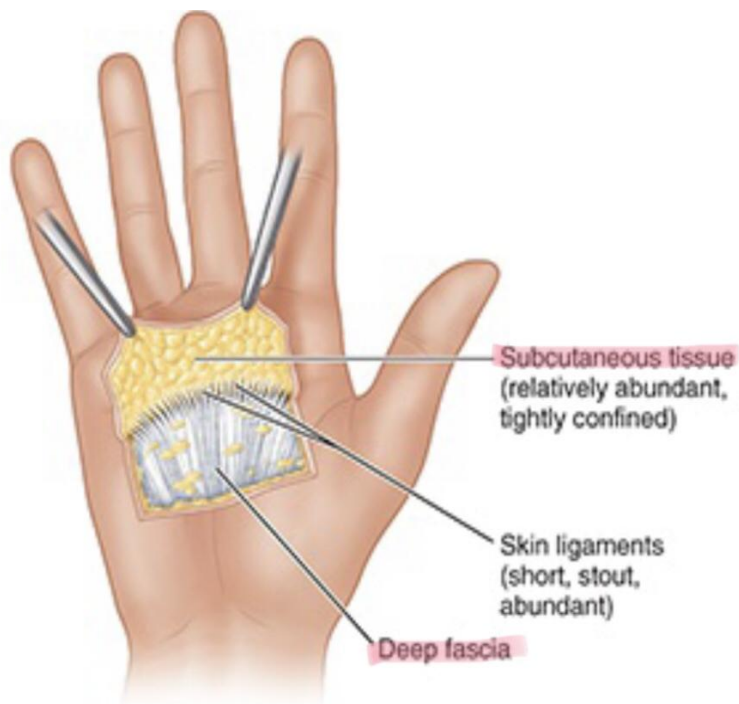
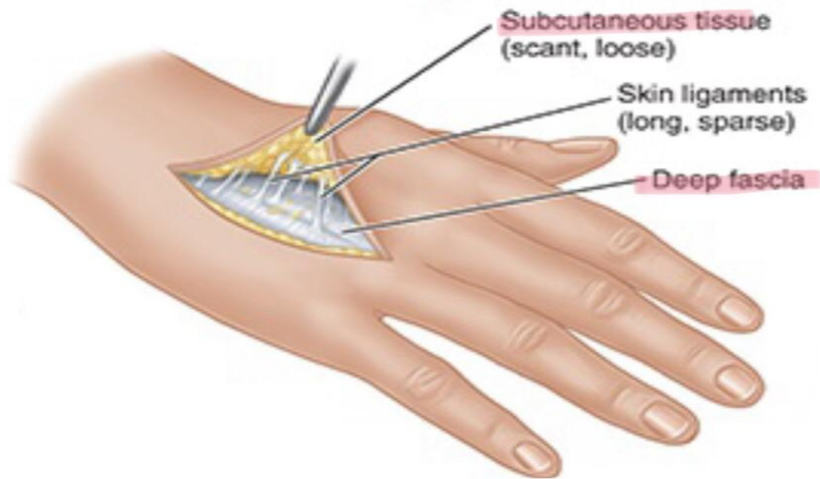


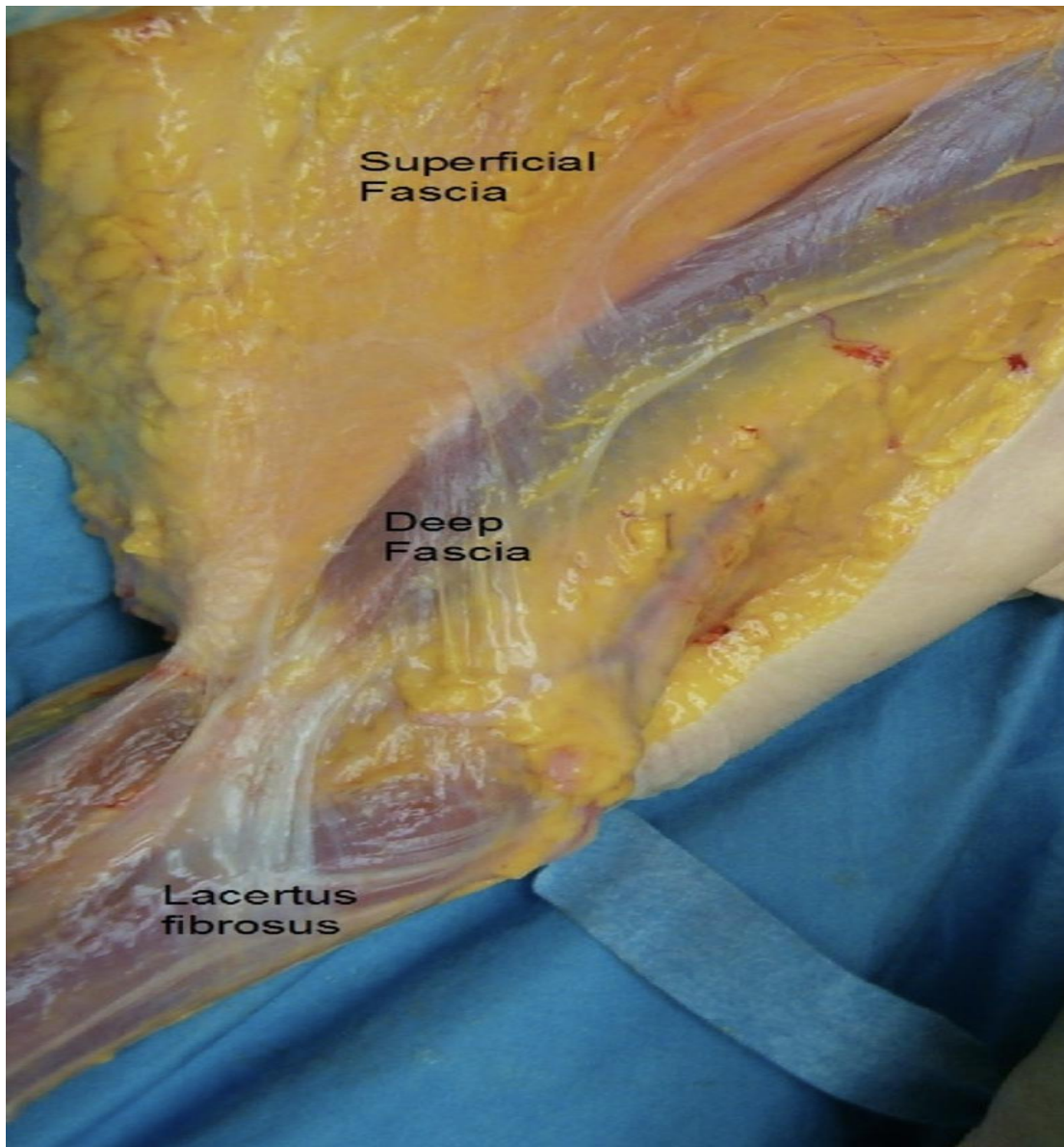
Figure (3.2)

Showing **layers of the skin** and two types of fasciae (**superficial fascia and deep fascia**) and underlying structure (**muscle**).



Figure(3.3)

Subcutaneous tissue(superficial fascia)and deep fascia in dorsum and palm of the hand.



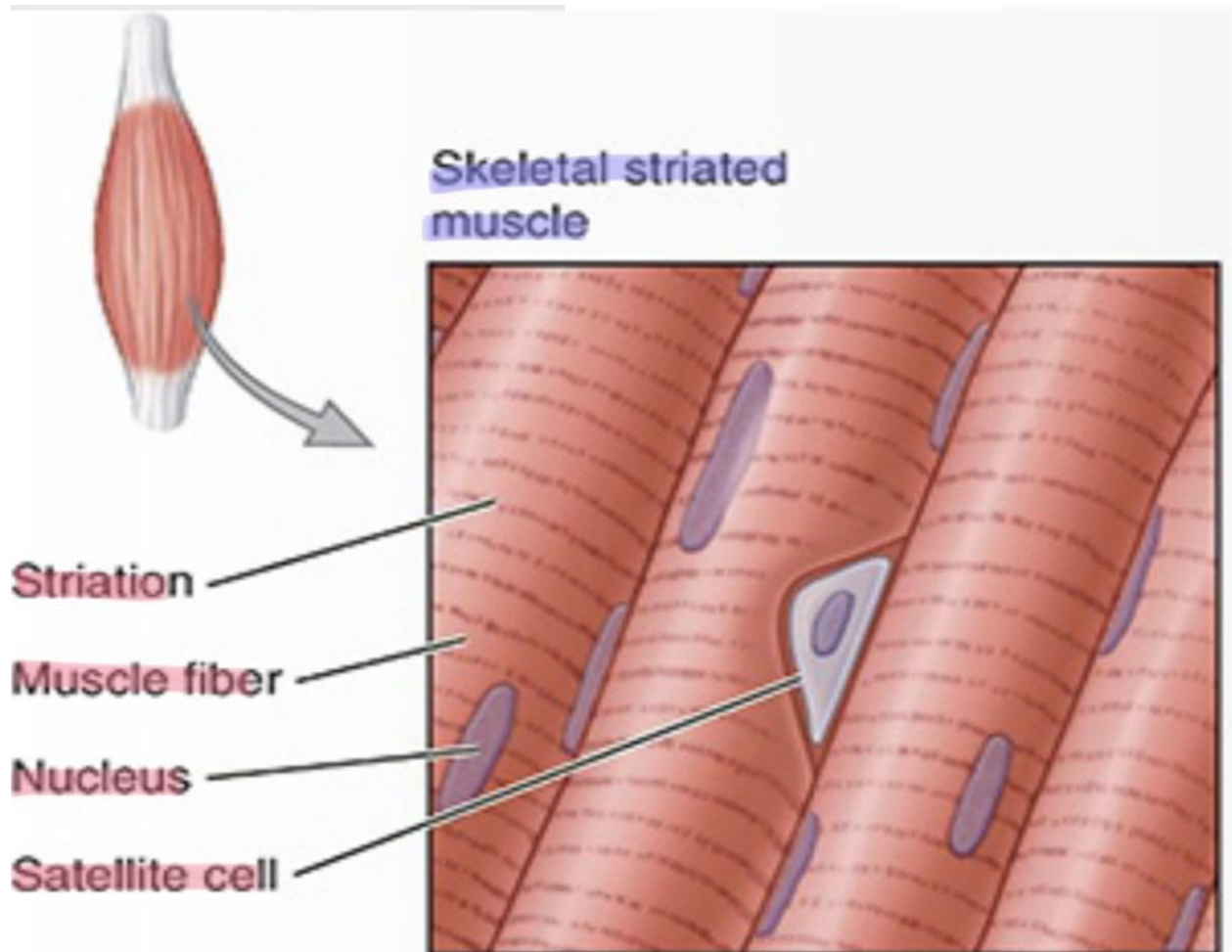
Figure(3.4)

Dissection showing **superficial and deep fascia** of anterior brachial fascia region .



Muscles:- There are **three types of muscle**, skeletal, smooth, and cardiac muscles.

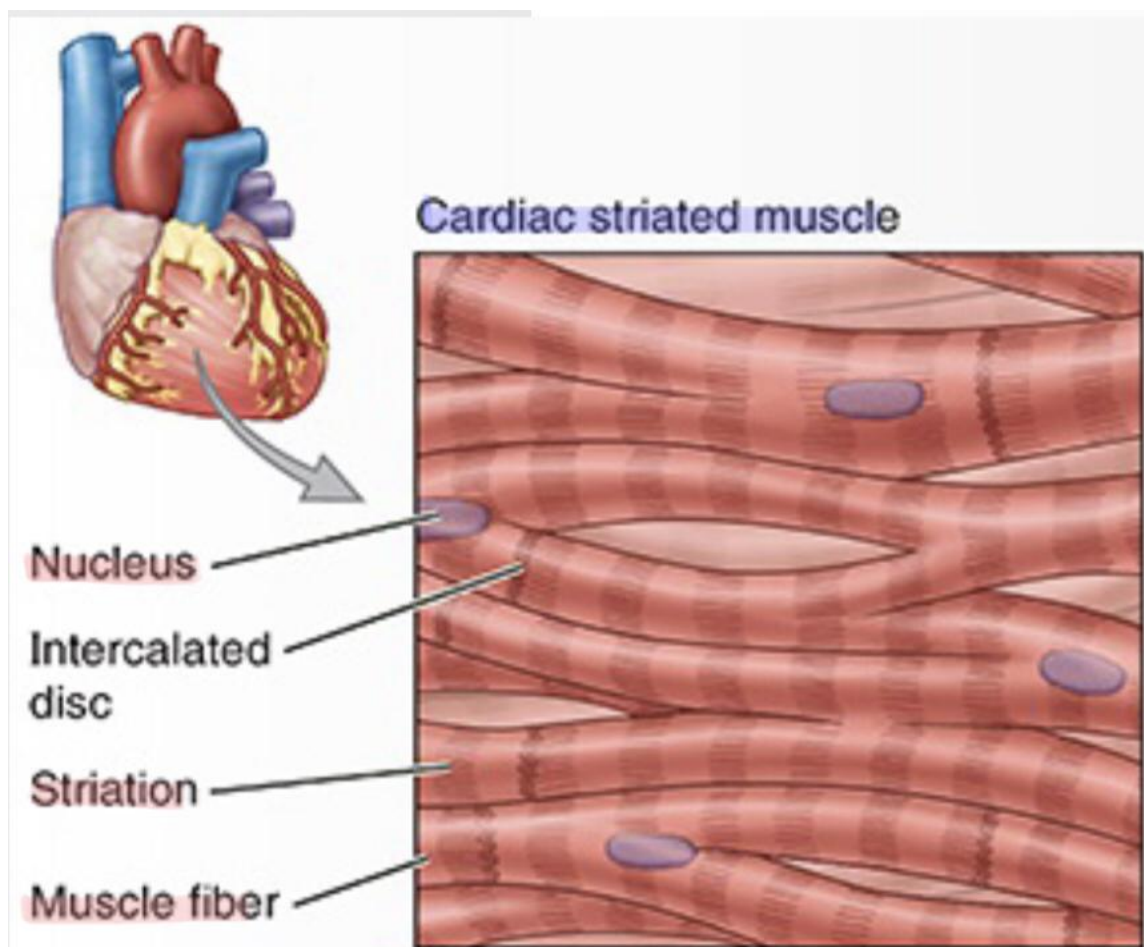
Skeletal muscles:- are responsible for production of the movements of the skeleton; they are sometimes called voluntary muscles.



Figure(3.5)

Skeletal striated muscle tissue (Note the muscle fiber, the striation ,Nucleus and satellite cell)

Cardiac muscles:- they have the property of spontaneous and rhythmic contraction, It forms the myocardium of the heart.

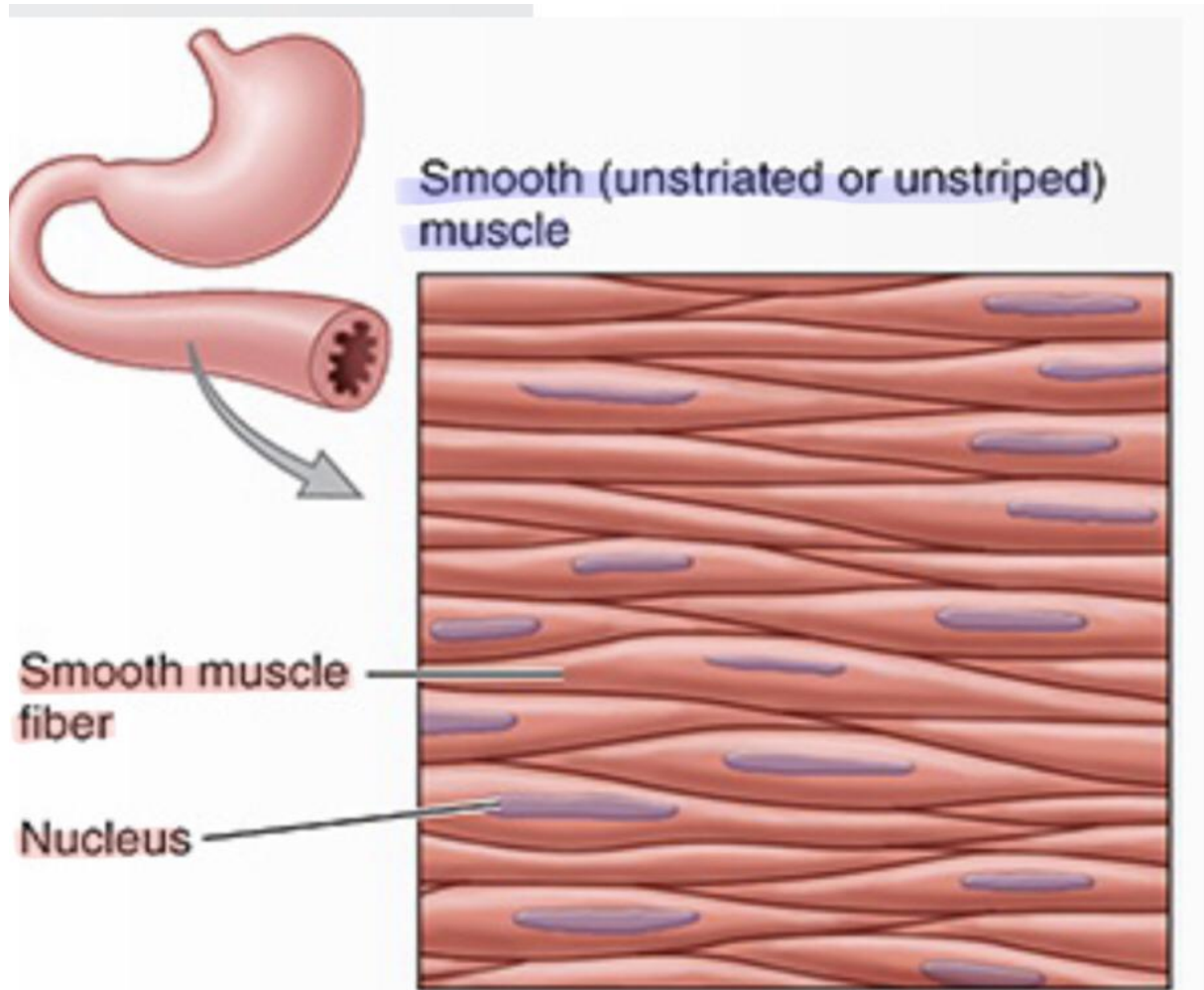


Figure(3.7)

Cardiac striated muscle tissue (Note the muscle fiber, the striation and the nucleus)

Smooth muscles:-

Involuntary , in the Walls of hollow viscera and blood vessels, attached to hair follicles of the skin (arrector pili muscle).



Figure(3.6)

Smooth unstriated muscle tissue (Note the smooth muscle fiber and the nucleus)



TYPES OF MUSCLE	Location	Appearance of cells	stimulation
Skeletal muscle	attached to skeleton	striated	voluntary
Cardiac muscle	myocardium of the heart	striated	Spontaneous
Smooth muscle	wall of hollow viscera, blood vessels, (arrector pili muscle).	unstriated	involuntary

TABLE(3.1) Types of muscle



Joints:-A site where two or more bones come together is called a joint.

Classifications of joint:- **fibrous** joints, **cartilaginous** joints, and **synovial** joints.



Fibrous
(Immoveable)

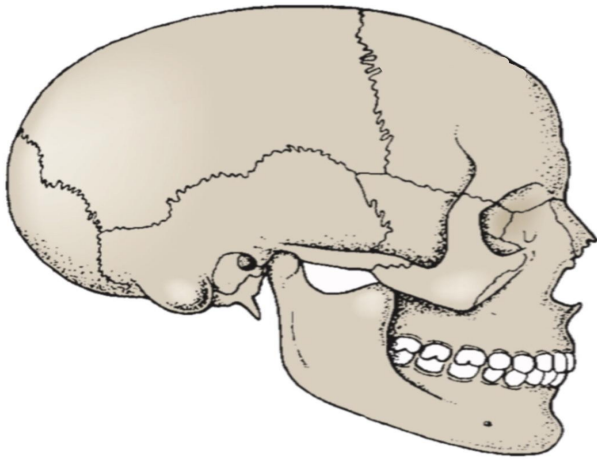


Cartilagenous
(Semi moveable)

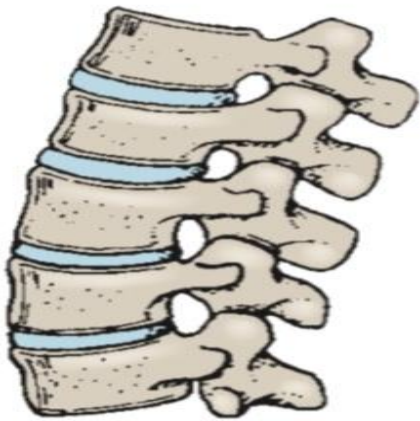


Synovial
(freely moveable)

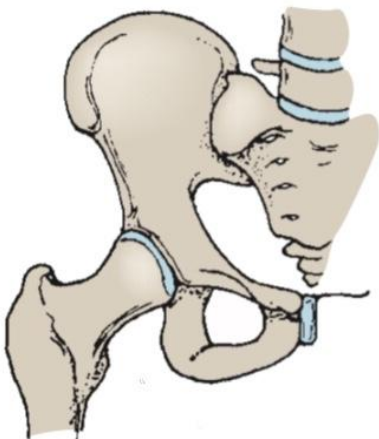
Figure(3.7) Types of joint
(Fibrous, cartilagenous , synovial)



Figure(3.8) Fibrous joint



Figure(3.9) Cartilaginous joint



Figure(3.10) Synovial joint



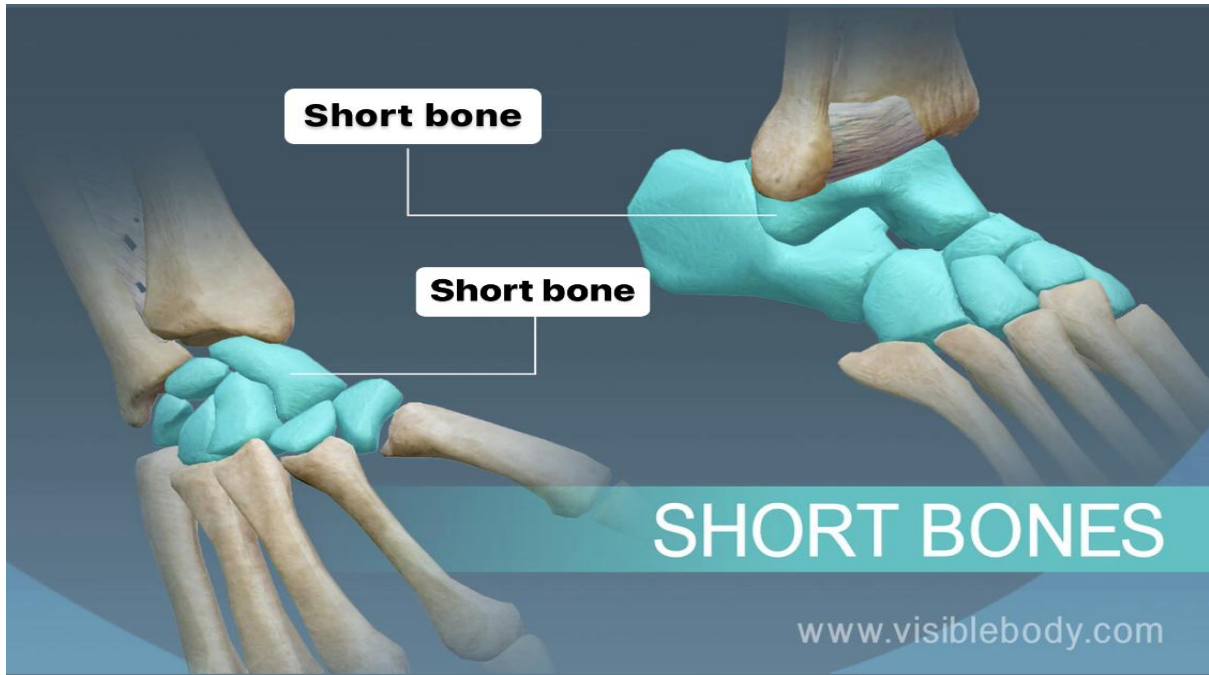
Bone:- is a living tissue capable of supporting other body structures.

Bones may be classified regionally or according to their general shape

According to the shape classified to :-**long** bones, **short** bones, **flat** bones, **irregular** bones, and **sesamoid** bones.



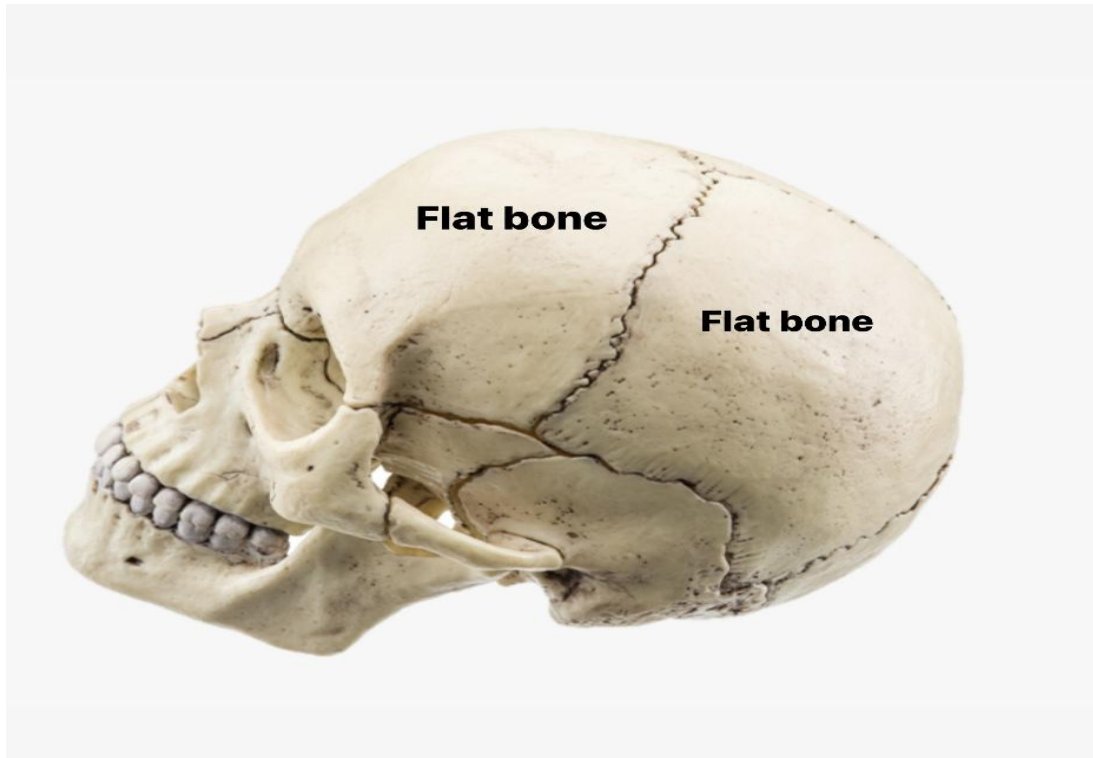
Figure(3.11) long bone



Figure(3.12) Short bone



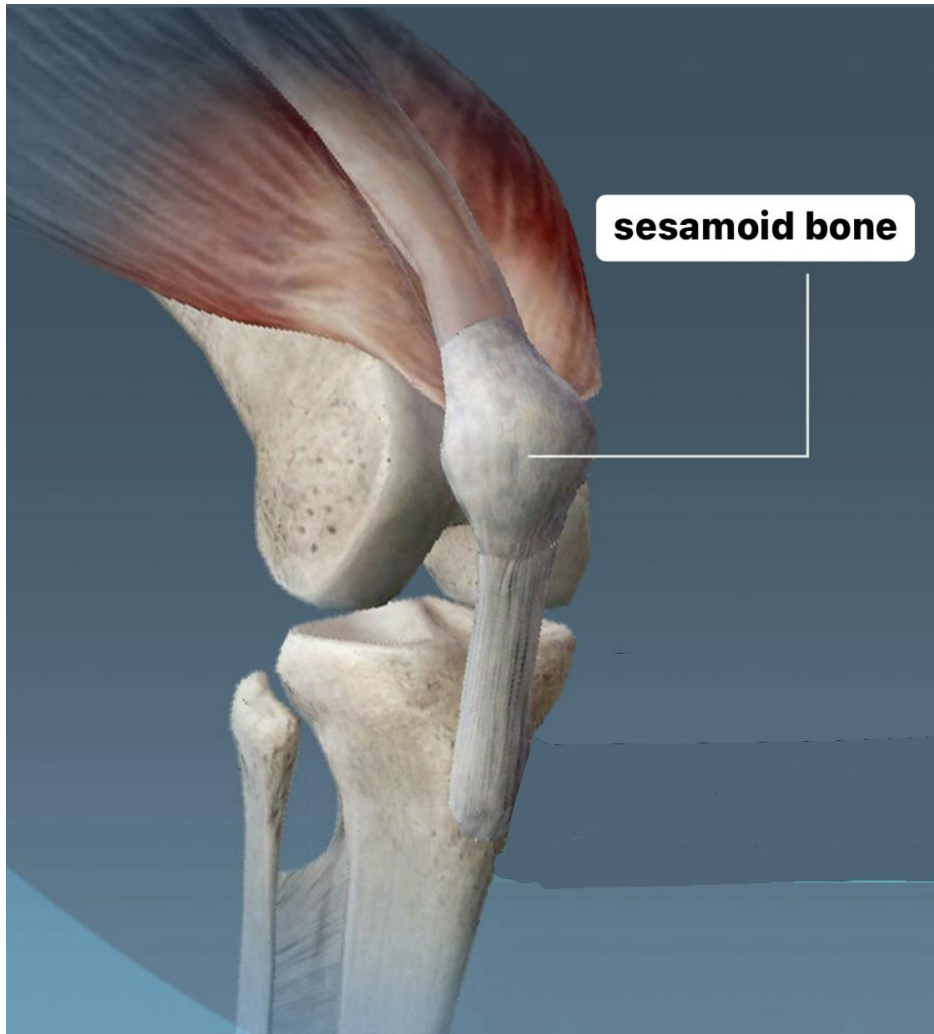
Figure(3.13) Short bone



Figure(3.14) Flat bone



Figure(3.15) irregular bone



Figures(3.16) Sesamoid bone