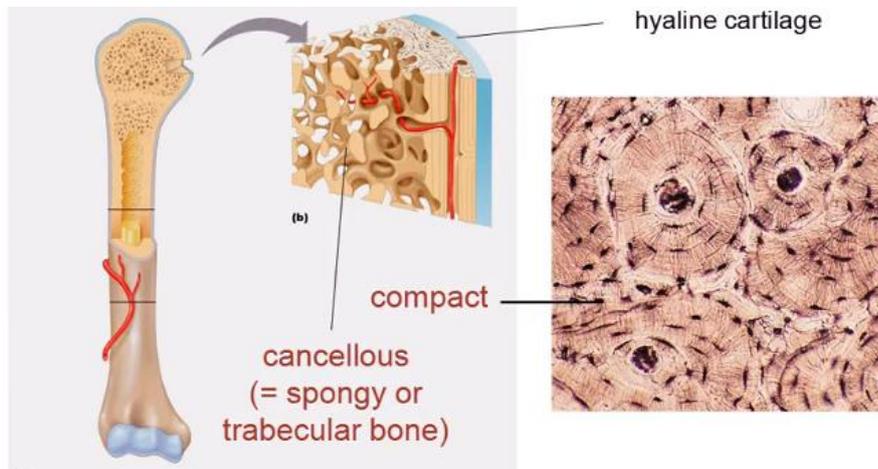


## ➤ Bone

Calcified matrix is the most obvious feature of **bone**. The *hardness of bone comes from calcium salts*

Adult bone is about **30% collagen** and **70% minerals**

### Compact and cancellous bone



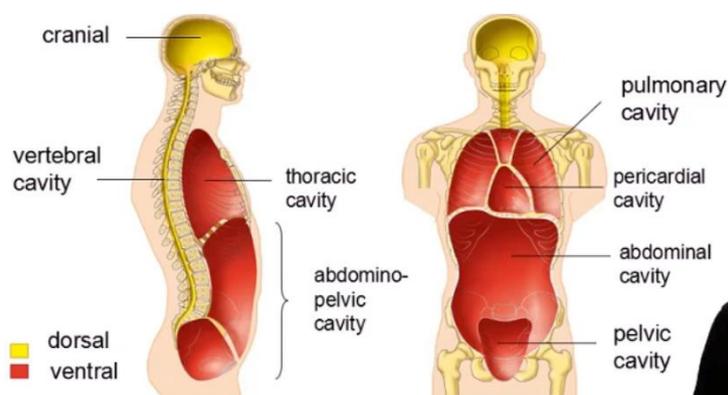
- **Compact bone** is found on the outside of a bone and **cancellous or spongy bone** is found on the inside

**The common components of all these types of connective tissue are specialized cells, fibres and ground substance**

## Major Body Cavities and Subdivisions (LO8)

*“Revise the locations of the major body cavities and the major subdivisions. Name these cavities and their major subdivisions and list the major organs found within each one. Explain what is meant by “viscera”. Name the serous membranes that line each of the anterior body cavities and name the tissue types that they are made from. Use principles RV1 and RV6 to describe their function(s) and determine if they perform a common function.*

*Describe the tissue layers of the body from superficial to deep and state the type of tissue contained in each layer. Define the terms 'somatic' and 'visceral' and describe the layers as either somatic or visceral.”*



## Serous Membranes

## Functions:

1. To produce *serous fluid*
2. To *lubricate* viscera allowing organs to slide across the body wall. This is especially important for mobile organs such as the pumping of the heart and the churning on the stomach

## Location:

Lining the ventral body cavities and organs

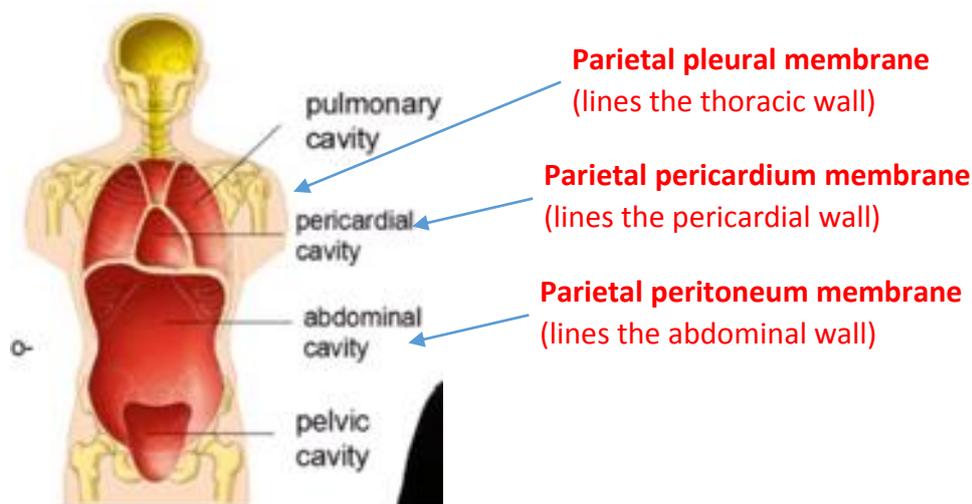
They are formed of a *layer of simple squamous epithelial tissue* lying on a *layer of loose connective tissue*

## Two general types:

Serous membranes which line the body cavities = **parietal membranes**

Serous membranes which line organs = **viscera membranes**

## Names of serous membranes:



**Visceral structures** = internal organs e.g. *intestines, lungs are visceral*

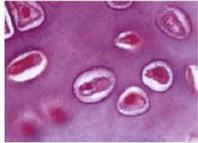
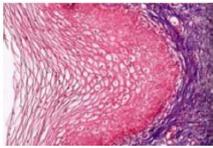
**Somatic structures** = structures surrounding the body cavities e.g. *ribs and skeletal muscle are somatic*

## Tissue Repair (LO9)

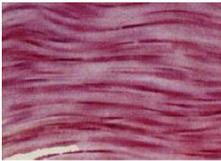
*“Explain why a cut to the skin will heal quickly, while a torn tendon will take weeks or months to heal.”*

### Blood Supply

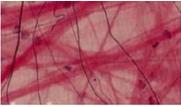
#### **Avascular**

- Cartilage 
  - Epithelium 
- There are no blood vessels in these two types of tissues**

#### **Poorly vascularised**

- dense connective tissue 
- There are some blood vessels in dense connective tissues such as tendons**

#### **Rich blood supply**

- Bone 
- Loose connective tissue 

**Tissue growth and repair depends on good blood supply**