



# Connective tissue

David Ebenezer A  
Assistant Professor  
Dept of Anatomy  
VMCH&RI

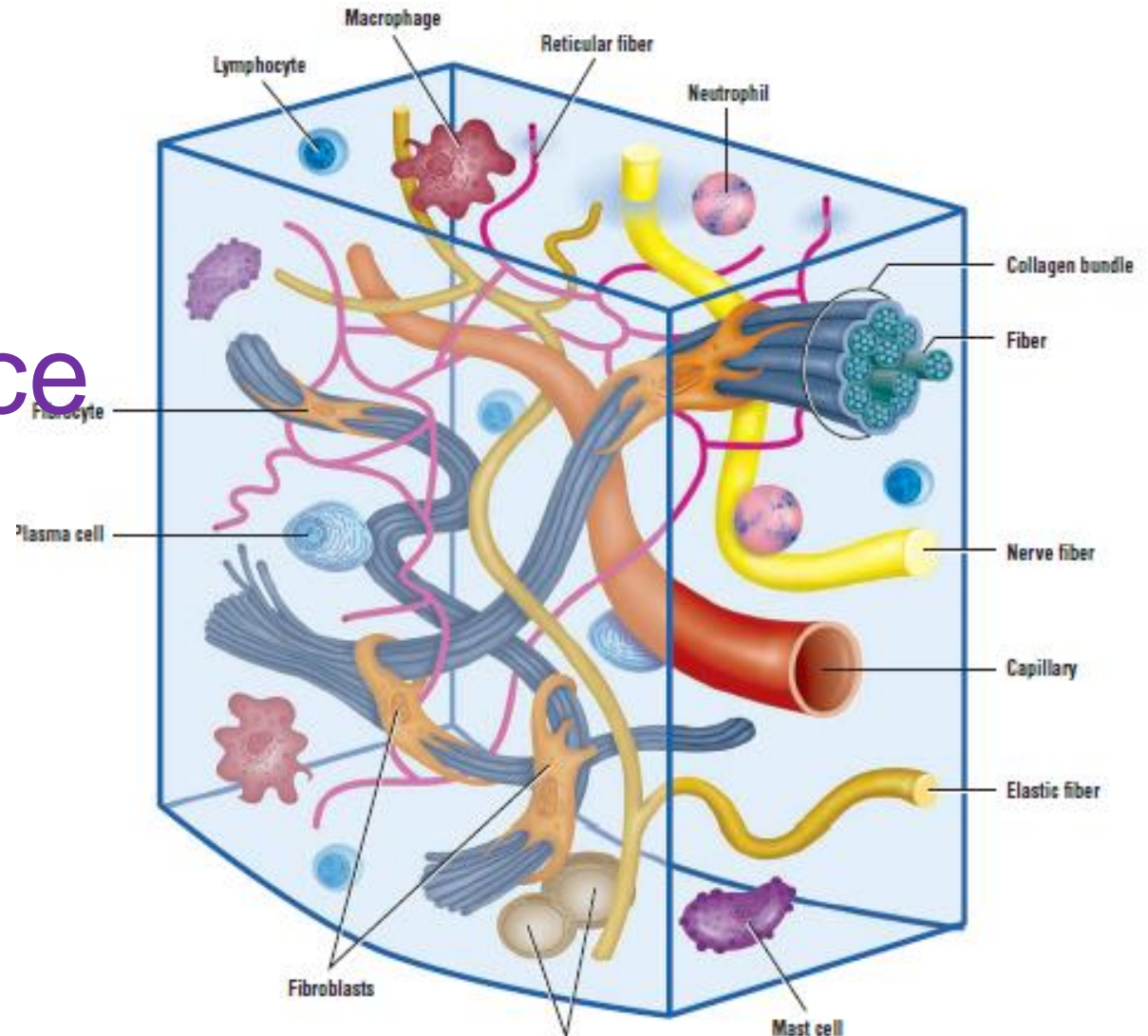
# Definition

---

Tissue which fills the interstices between more specialised elements and serves to hold them together and support them

# Components of connective tissue

- Cells
- Ground substance
- Fibers



# Cells of connective tissue

---

## □ Fixed / intrinsic cells-

Fibroblast, pigment cells, macrophage cells, mast cells and fat cells

## □ Wandering/ transient cells-

Lymphocytes, plasma cells, monocytes, eosinophils

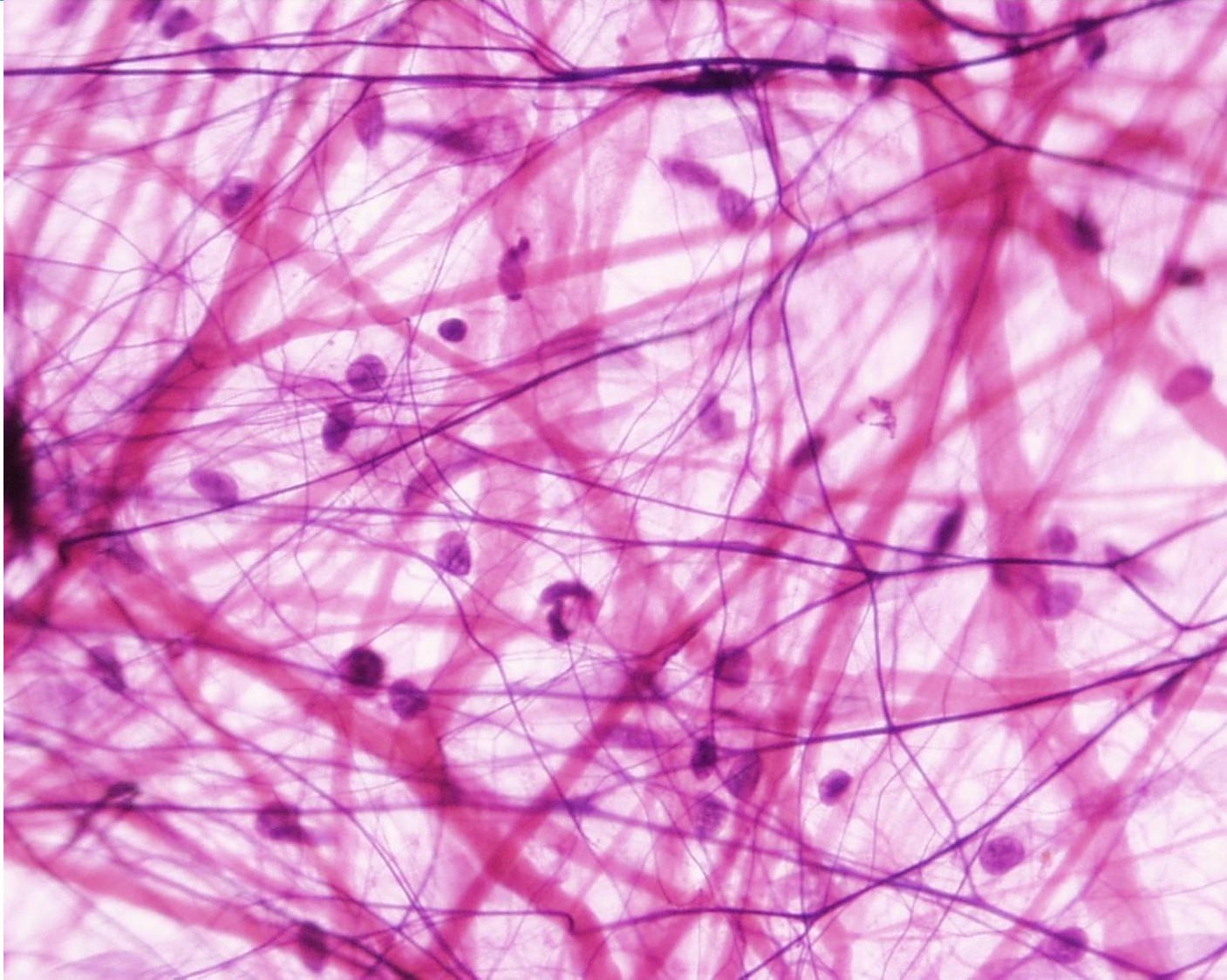


# Ground substance



- ❑ Made of proteoglycans
- ❑ Carry sulphate & carboxyl group which give them negative charge
- ❑ Retain water which helps to form a gel that gives stiffness
- ❑ Acts as a sieve in the basement membrane
- ❑ Synthesised by fibroblast

# Fibers of connective tissue



# Classification

## A. Loose connective tissue

- ▣ 1. Areolar connective tissue
- ▣ 2. Adipose tissue
- ▣ 3. Reticular connective tissue

## B. Dense connective tissue

- ▣ 1. Dense regular connective tissue
- ▣ 2. Dense irregular connective tissue
- ▣ 3. Elastic connective tissue

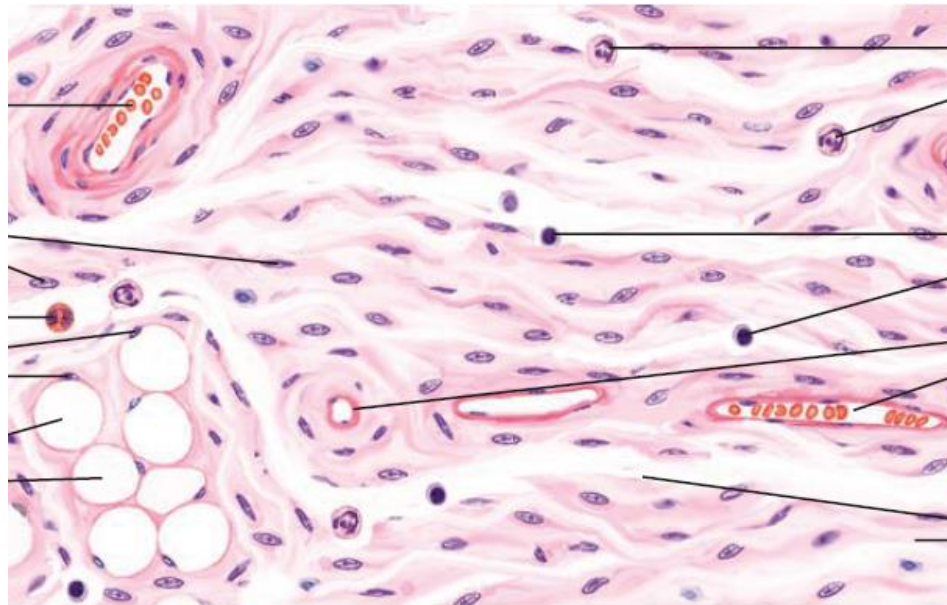
## C. Cartilage

## D. Bone

## E. Blood

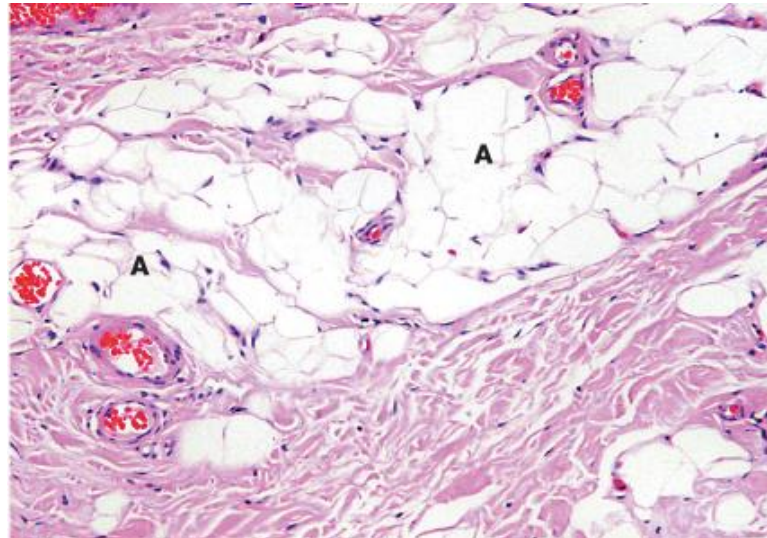
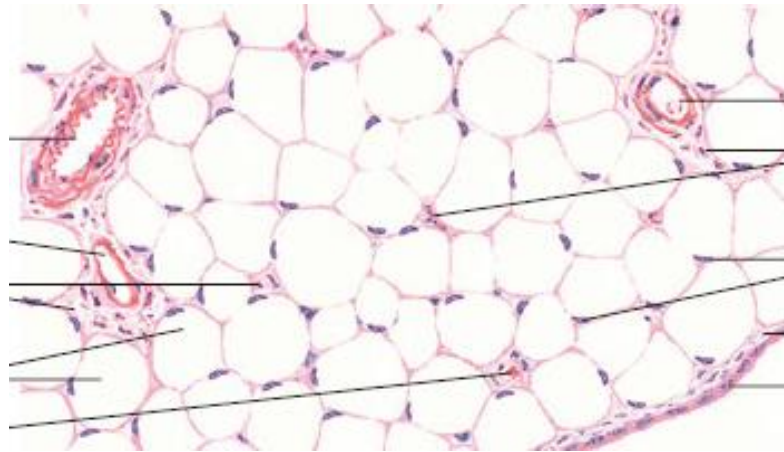
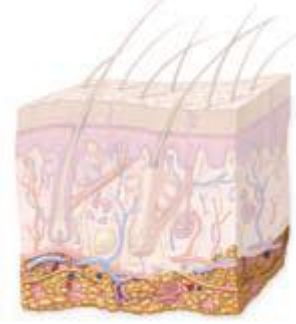
## F. Embryonic connective tissue

# Loose areolar connective tissue

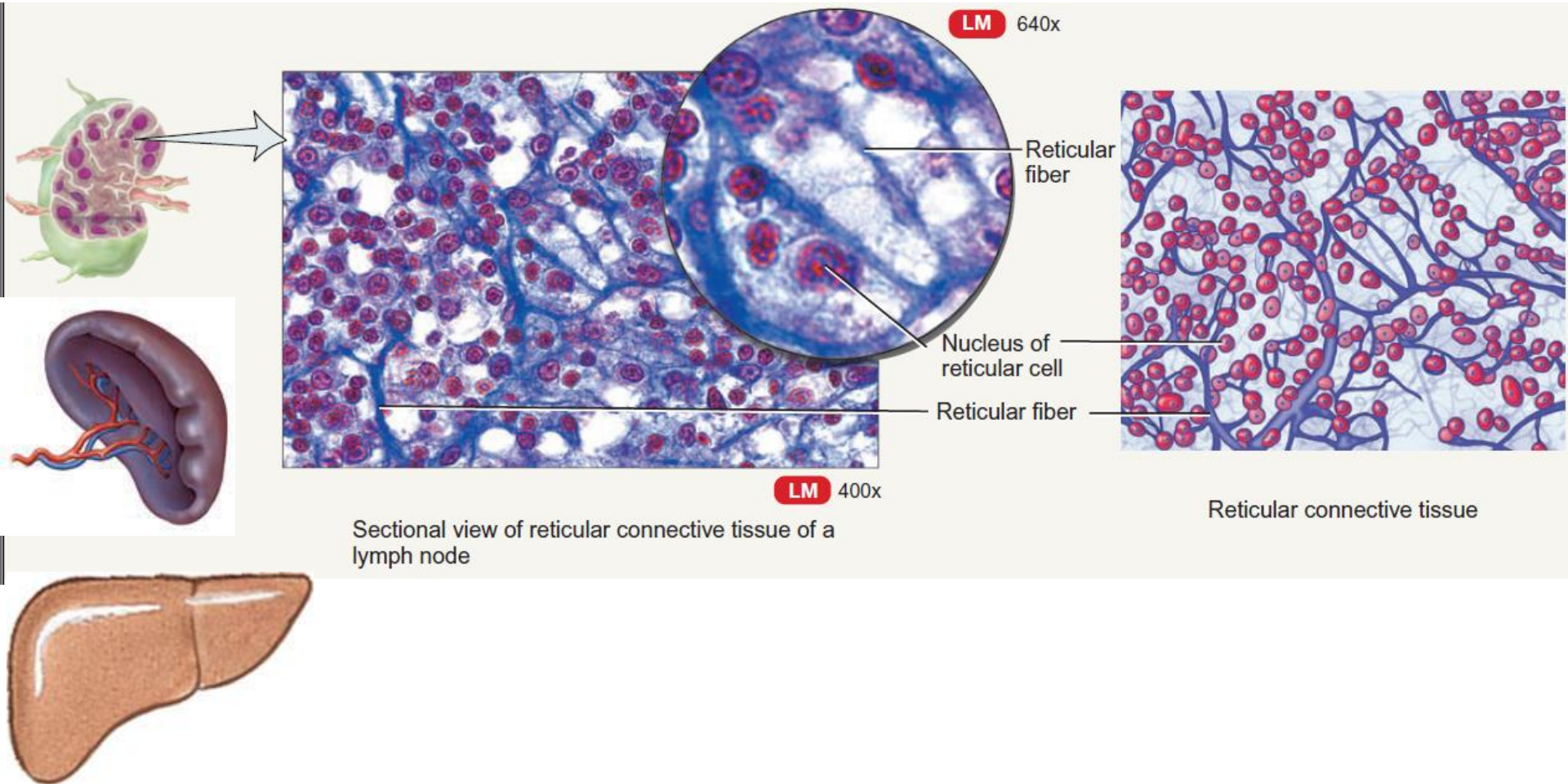




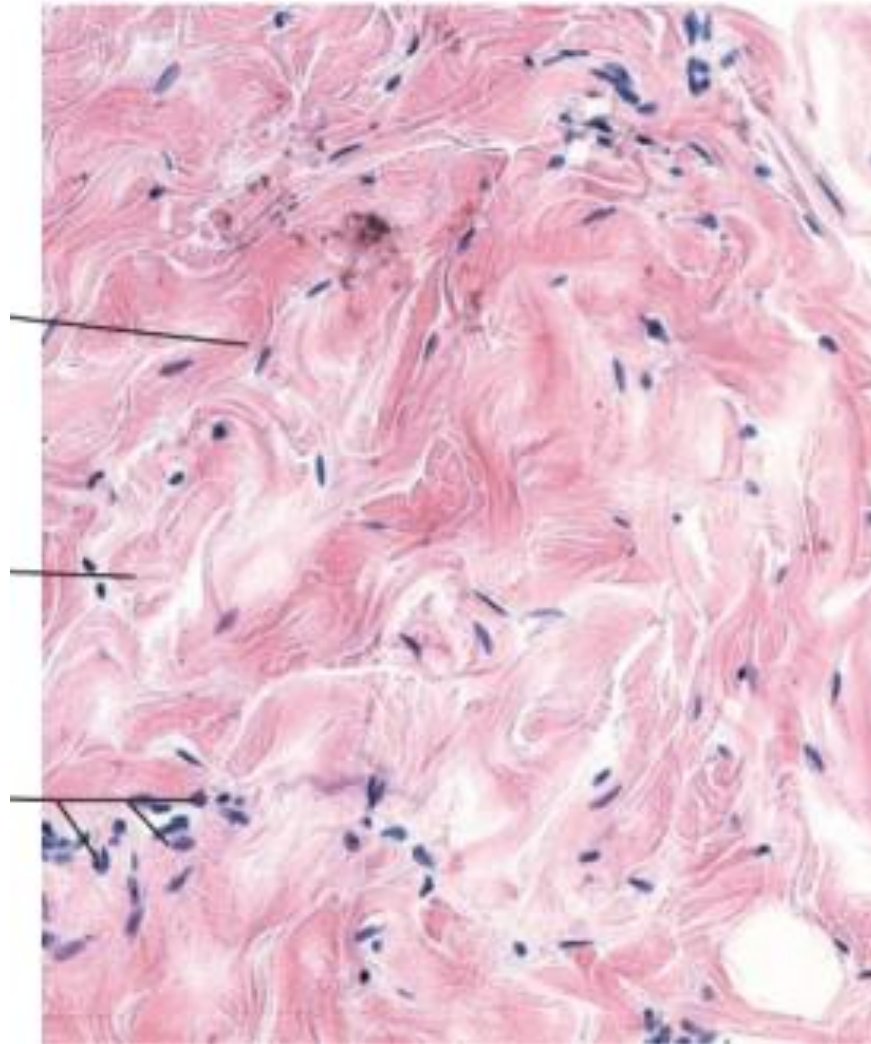
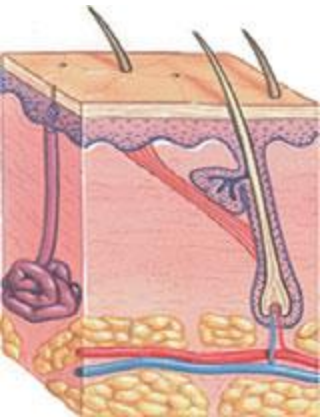
# Adipose tissue



# Reticular tissue

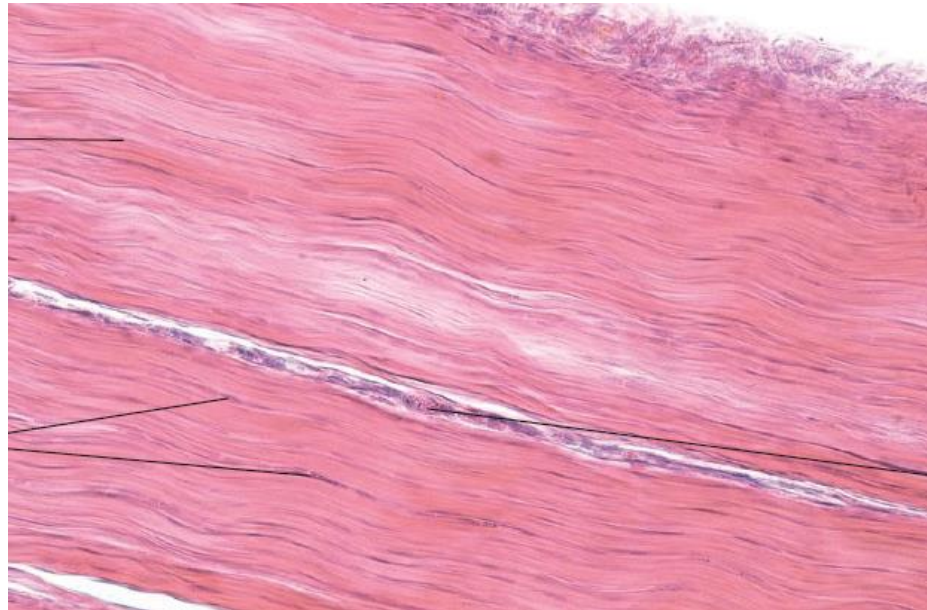


# Dense irregular connective tissue



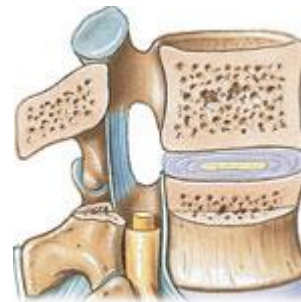
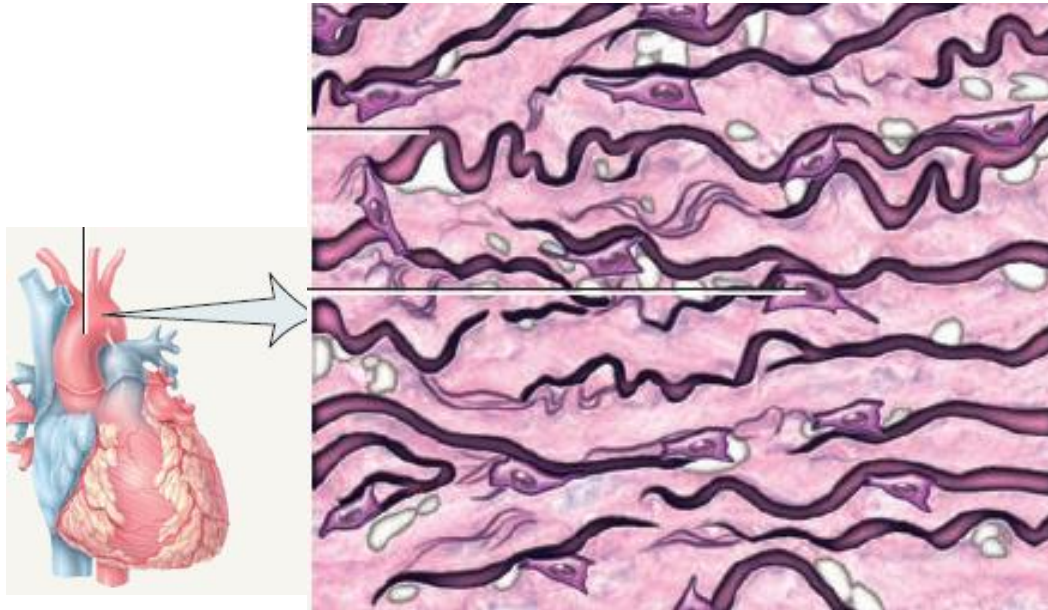


# Dense regular connective tissue





# Elastic tissue



# Embryonic connective tissue

