

**Blood vessels**

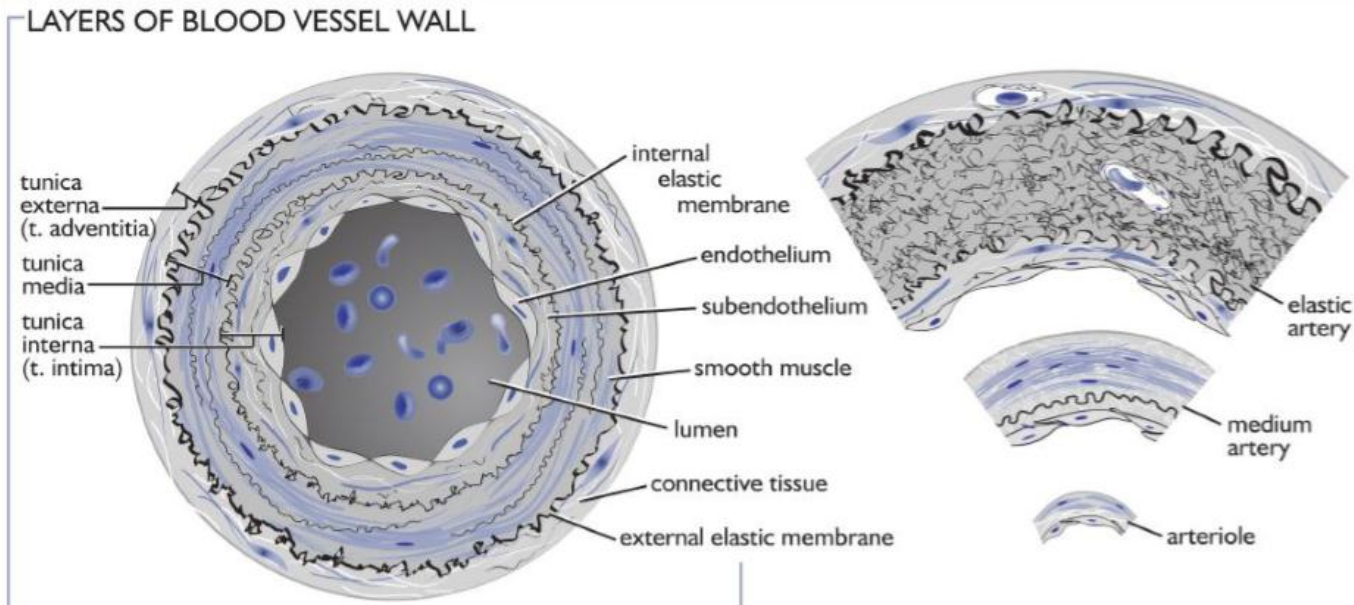
They range from large elastic arteries such as the aorta to very small capillaries. The wall of a blood vessel has various layers, depending on the size of the vessel.

**1. The tunica interna (tunica intima) :-**

- a) **Endothelium** is simple squamous epithelium which lines blood vessels and lymphatics.
- b) **The subendothelium** is fibrous connective tissue
- c) **The internal elastic membrane** is a condensation of elastic fibres.

**2. The tunica media, a mixture of smooth muscle and connective tissue**

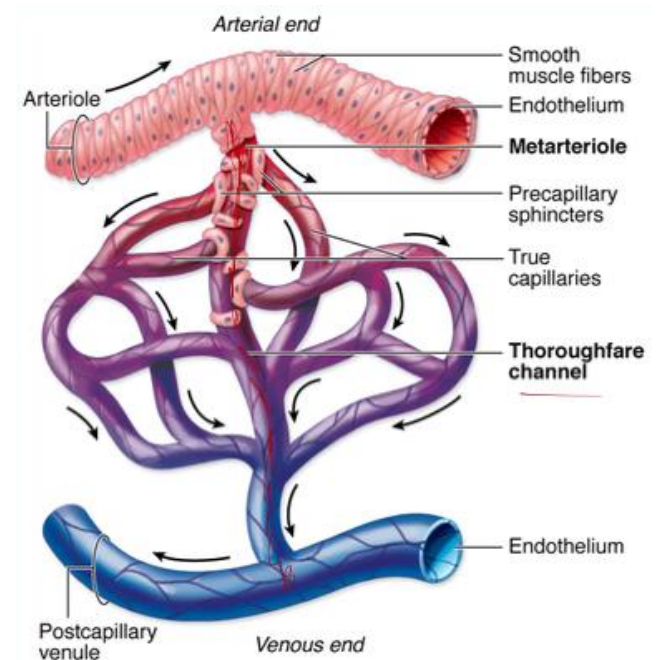
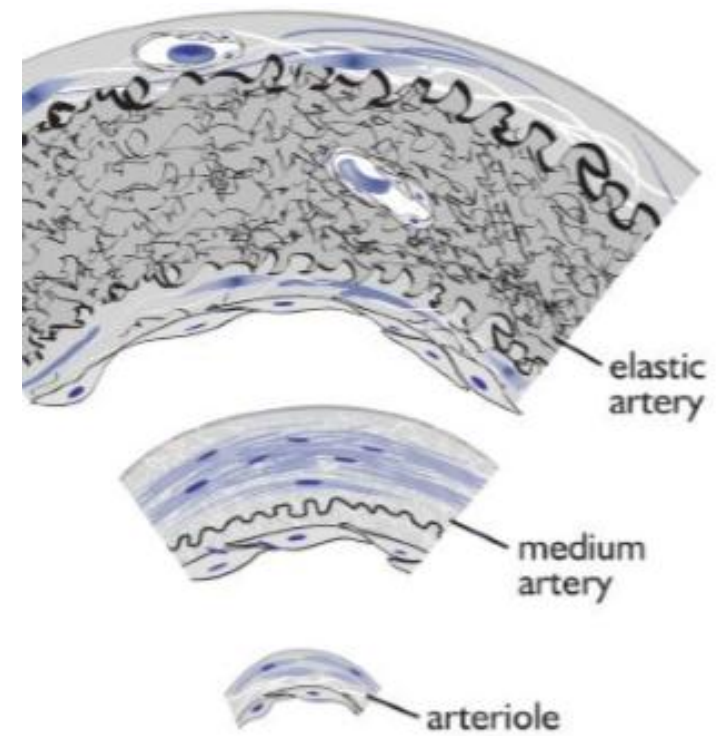
**3. The tunica externa (tunica adventitia), which is a connective tissue on the outer surface.**



# Arteries

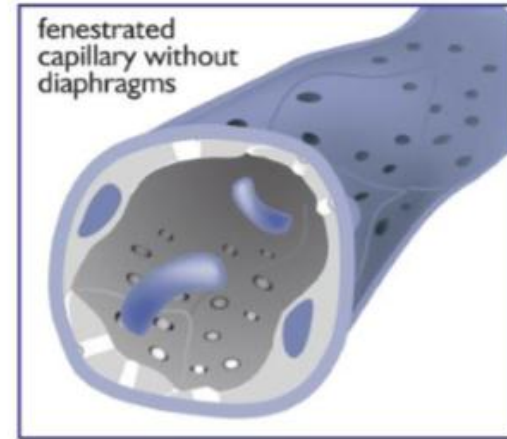
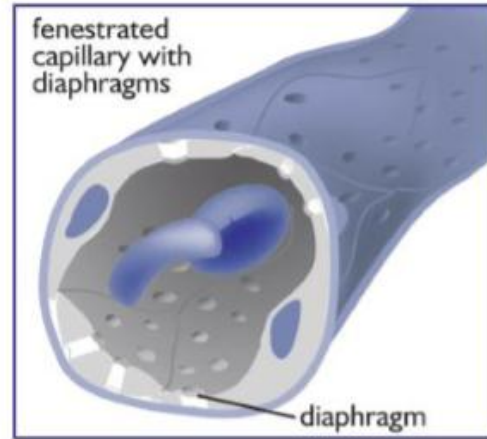
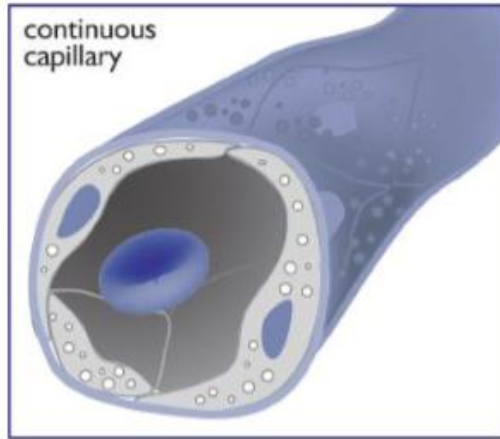
There are three types

1. Elastic artery
2. Medium artery
3. Arteriole

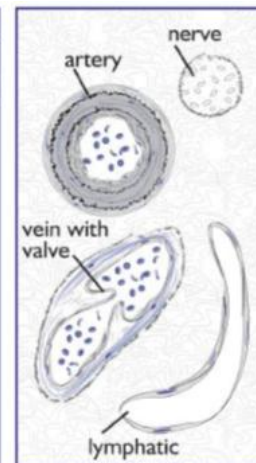
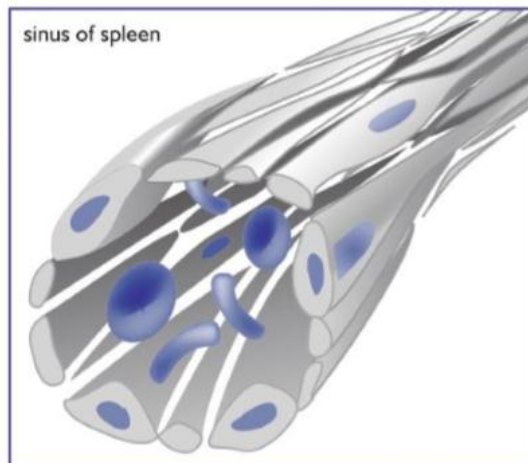
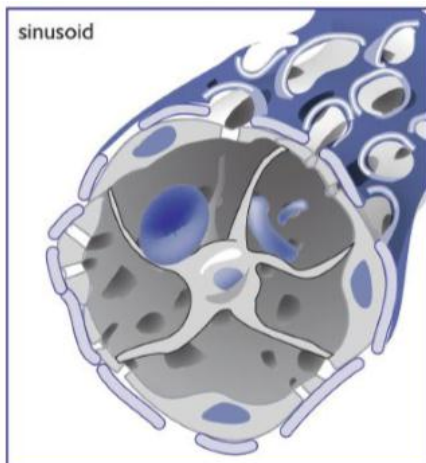


# Capillaries

- They have a thin wall of endothelium .
- Continuous capillaries are found in muscle or lung.
- The fenestrated capillary has small pores scattered throughout the endothelial cells of the vessel wall.



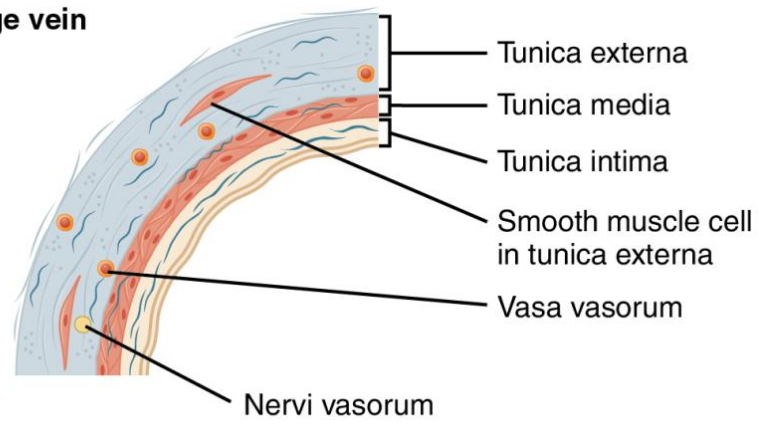
- Sinusoids have a larger lumen than the fenestrated capillary.
- Liver and bone marrow sinusoids are an example of this type of blood vessel.



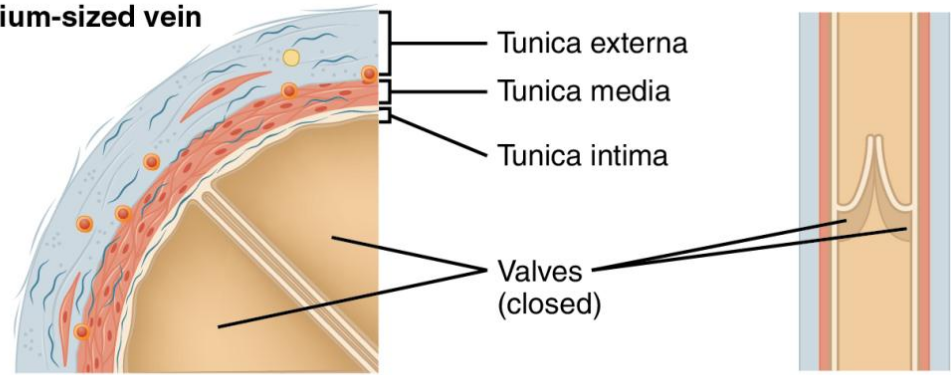
# Veins

They have a larger lumen and a thinner wall.

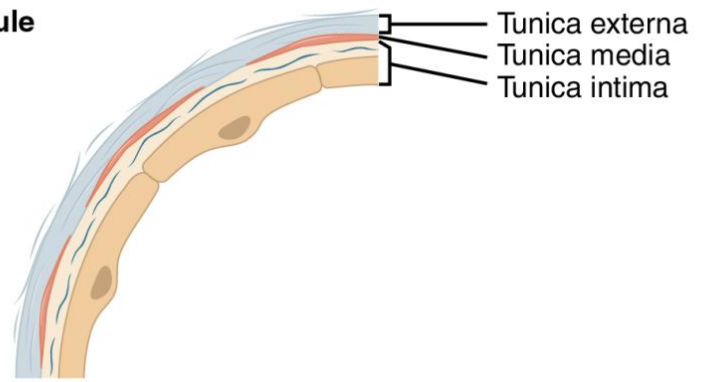
## 1. Large vein

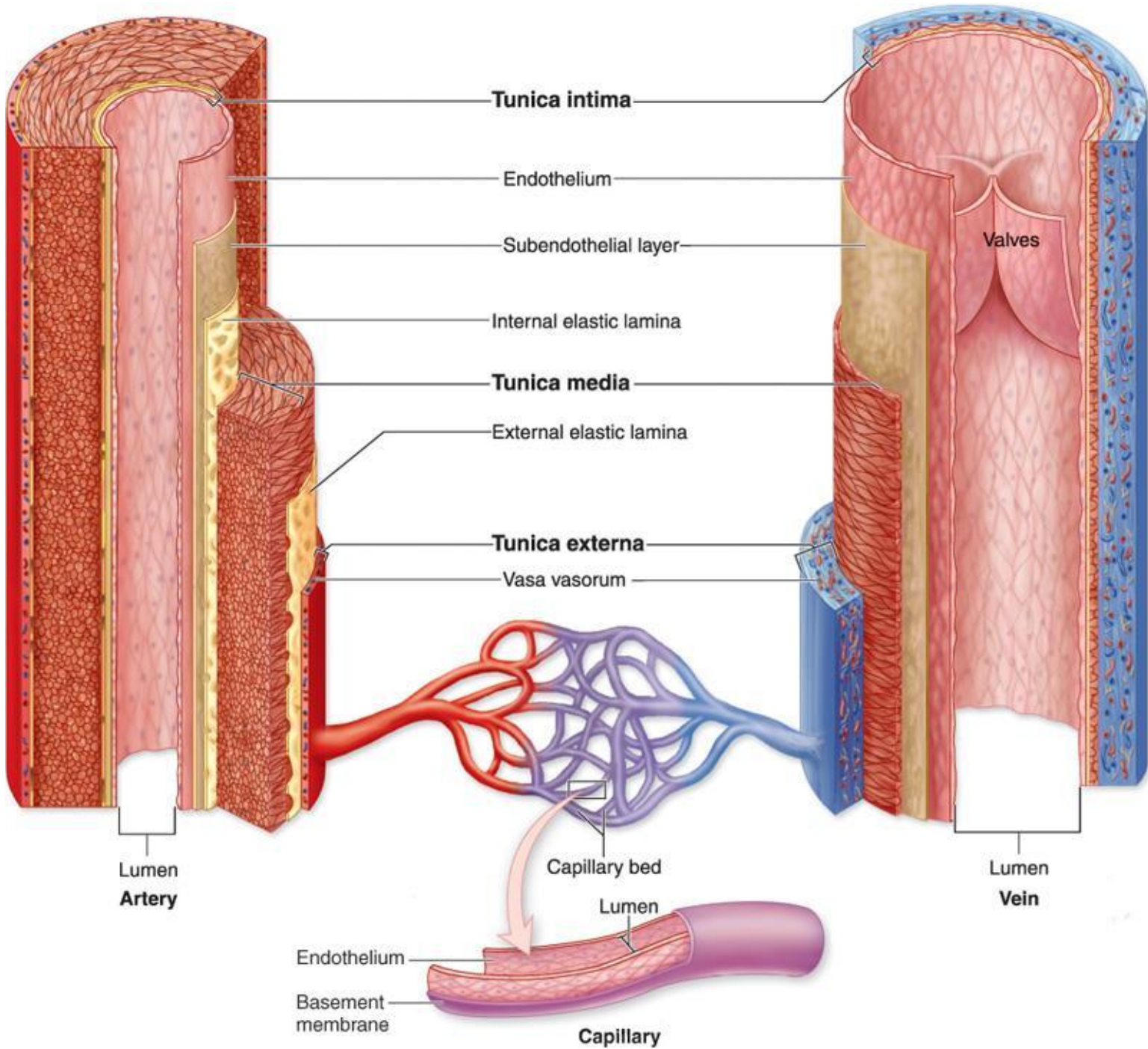


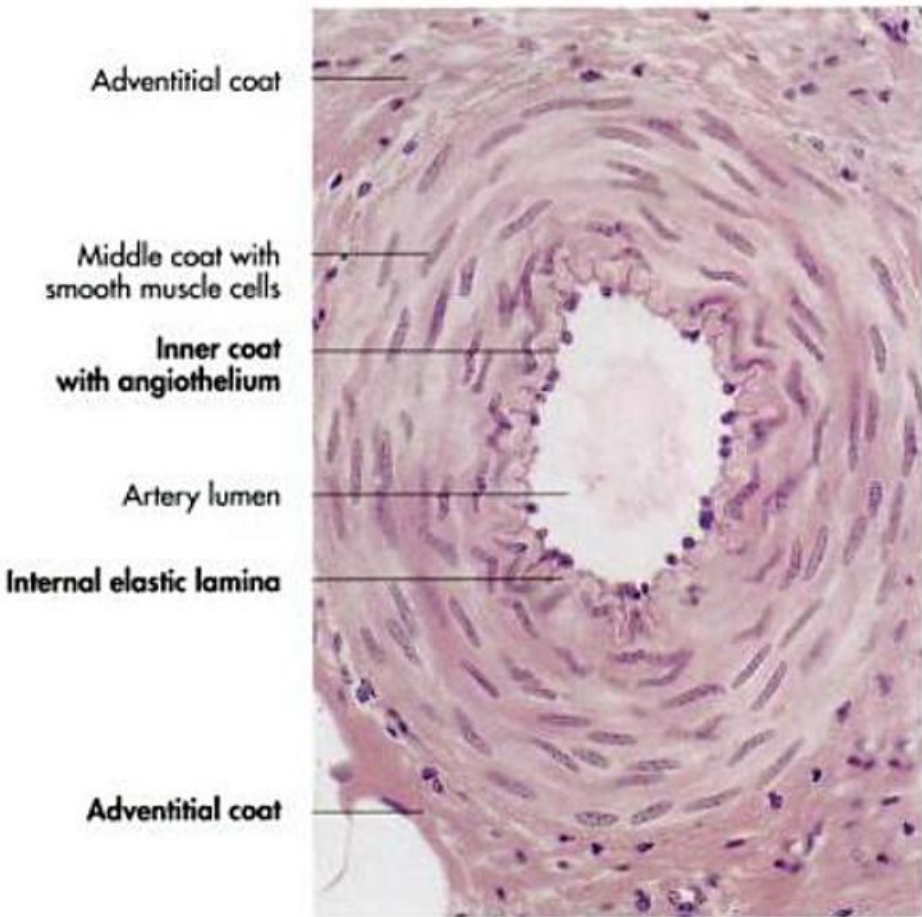
## 2. Medium-sized vein



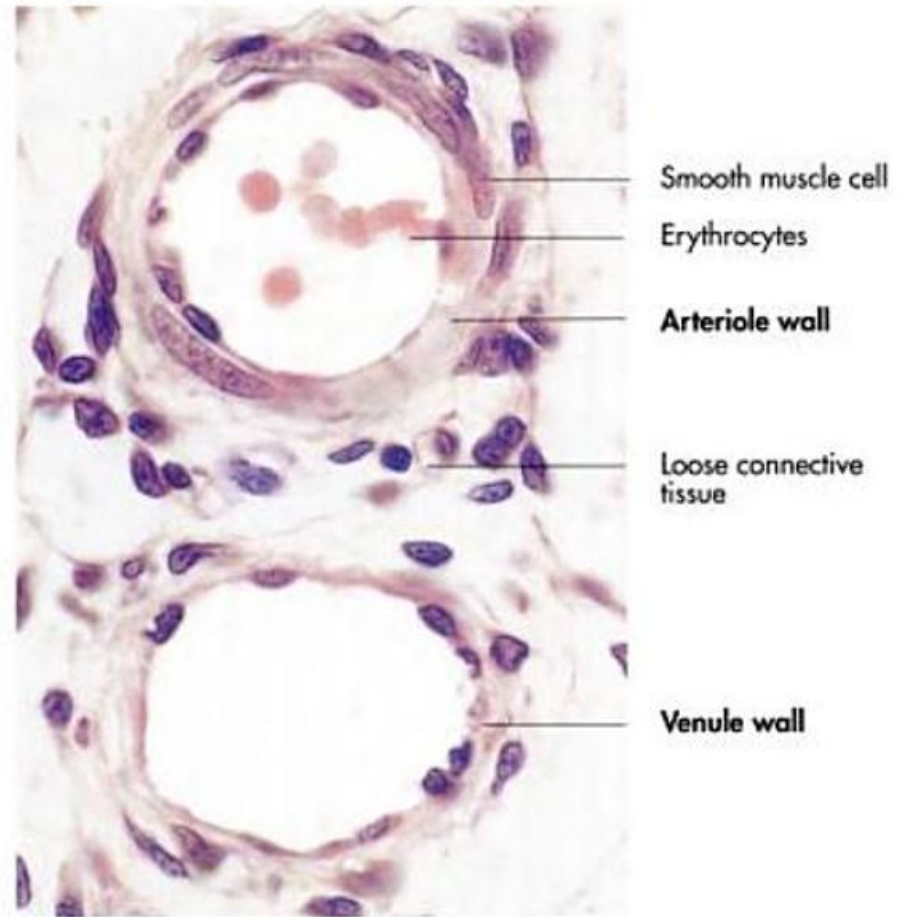
## 3. Venule







**Fig. I-51.** Artery (histological section, hematoxylin and eosin staining).



**Fig. I-52.** An arteriole and a venule (histological section, hematoxylin and eosin staining).