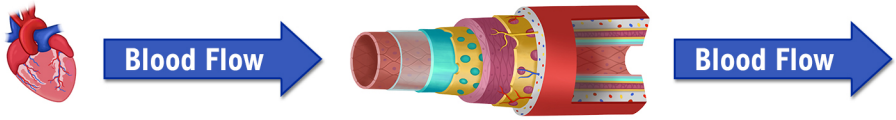
TOPIC: ARTERIES

Introduction to Arteries

- Recall: **Arteries** are blood vessels that carry blood _____ from the heart.
  - Contain all 3 tunics, but the tunica media is especially _____ & lumens are *smaller* compared to veins.
  - Compared to veins, arteries are plentiful in _____ fibers, allowing them to easily expand & recoil.

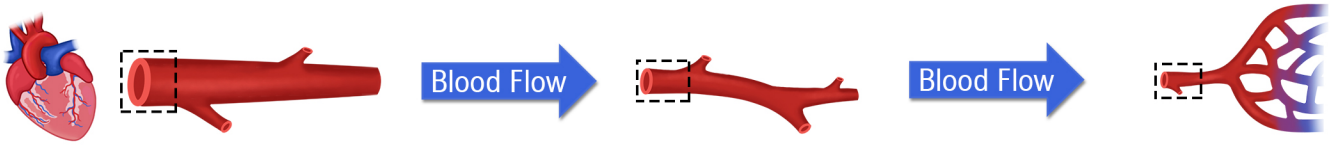
_____

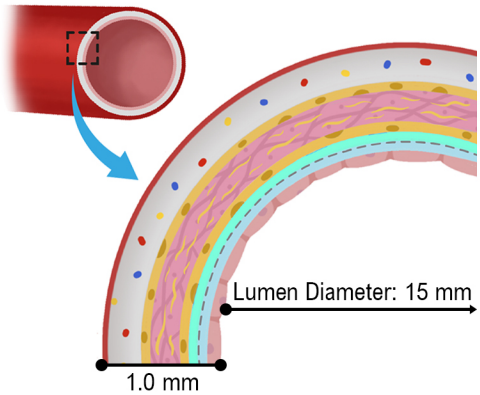
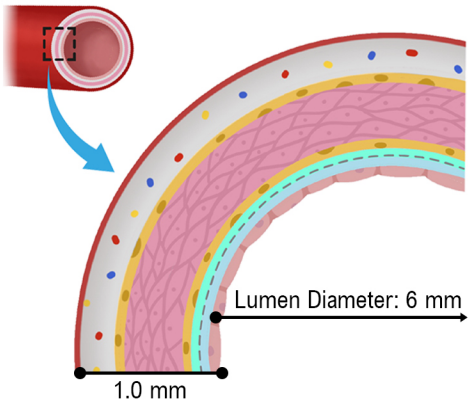
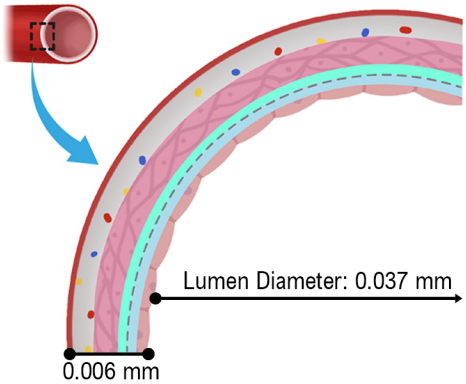


Subcategories of Arteries

- ____ subcategories of arteries based on their size & function:

1) **Elastic Arteries**: *largest* arteries *near heart*; lots of _____; may have internal/external elastic laminae.
   - Walls *stretch* to hold blood from heart contraction, but _____ during *diastole* to keep blood flowing.
2) **Muscular Arteries**: *medium*-sized arteries; have more *smooth* _____ (vasoconstriction) & less elastin.
   - Receive blood from elastic arteries & help deliver blood toward specific organs/muscles.
3) **Arterioles**: *smallest* & most _____ arteries; regulate blood flow directly into *capillaries*.
   - Vasoconstriction increases "*resistance*" & can _____ blood flow away from capillaries.



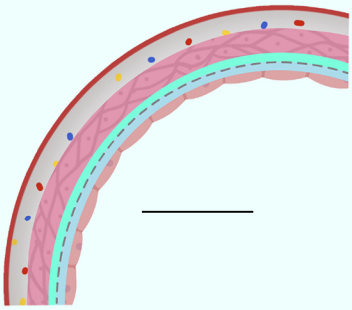
1) _____ (Conducting) Arteries	2) **Muscular** (Distributing) Arteries	3) **Arterioles** (Resistance Arteries)
		
  Diameter: 25 mm Diameter: 10 mm	  Diameter: 7 mm Diameter: 0.3 mm	  Diameter: 0.18 mm Microscopic

TOPIC: ARTERIES

EXAMPLE

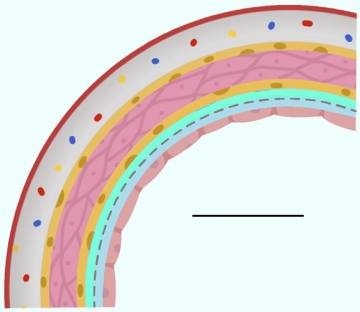
Label each of the diagrams below with their corresponding type of artery.

a) Elastic Artery



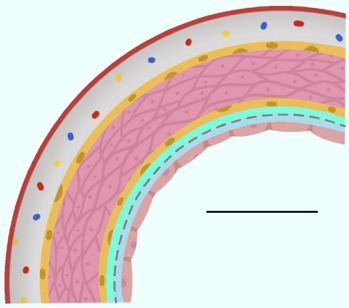
_____

b) Muscular Artery



_____

c) Arteriole



_____

EXAMPLE

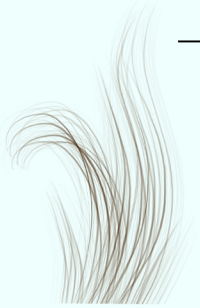
Label each image below with the type of artery that corresponds best with the size/diameter of the item.

a) Elastic Artery

_____

b) Muscular Artery

_____



c) Arteriole

_____

PRACTICE

What is the protein-rich substance in elastic arteries that contributes to their ability to recoil & maintain blood pressure during diastole?

a) Collagen. b) Elastin. c) Smooth muscle. d) Fibroblasts.

PRACTICE

Which type of artery has the thickest tunica media in proportion to the rest of its wall?

a) Elastic artery. b) Muscular artery. c) Arteriole.