Veins carry blood back toward heart. With the exception of the pulmonary veins, veins carry deoxygenated blood. Veins are more flexible and thin-walled than arteries. The blood inside veins is under relatively low pressure compared to arteries (the blood therefore flows smoothly and slowly). Larger veins (like the long ones in legs) have valves that are formed from endothelium (single-cell lining tissue). This prevents blood from flowing back in the wrong direction (like back down the legs). Muscles around the veins contract during movement to help this. As capillaries get bigger, they turn into venules and veins (venules = smaller branches of veins).

**Veins of the Heart**

1. **Vena Cavae**: Two main veins that return blood back to the heart. The superior vena cava brings blood back from organs/tissues above diaphragm, while the inferior vena cava returns blood from organs/tissues below diaphragm. Both vena cavae drain into the right atrium.
2. **Pulmonary Veins**: Four veins that return blood from the lungs into left atrium (two come from each lung).

**Anatomy of Veins**

1. **tunica intima**: lines lumen (interior of vessels) — consists of squamous epithelial cells — cells fit closely together and form a slick surface.
2. **tunica media**: middle coat — mostly smooth muscle (involuntary/unstriated)
3. **tunica externa**: outermost tunic — composed of fibrous connective tissue — supports and protects vessels + valves to prevent backflow.