

ARTERIES AND VEINS

ARTERIES

1. Carry blood AWAY from heart
2. Pressure high, pulsating
3. Blood propelled by pressure from heart
4. No valves
5. Walls thick, elastic; retain a circular shape, even when empty
6. Generally circular cross-section
7. Divide into branches
8. Usually run deeper
9. Usually carry oxygen-rich blood
EXCEPTION: oxygen-poor in pulmonary artery

VEINS

1. Carry blood BACK TOWARDS heart
2. Pressure low, sluggish
3. Blood propelled by massaging action of nearby organs
4. Valves prevent backflow
5. Walls thin, more flexible; collapse when empty
6. Cross-section often flattened, irregular
7. Collect as a system of tributaries
(EXCEPTION: portal veins have distributaries)
8. Sometimes close to surface
9. Usually carry oxygen-poor blood
EXCEPTIONS: oxygen-rich in pulmonary veins
(and umbilical vein in fetus)