



Valves in the heart open and close to allow blood to pass through



Valves prevent the back-flow of blood

Arteries →

Carry blood away from the heart

Thick & muscular walls

Veins →

Carry blood towards the heart

Thin walls

Capillaries →

Connect arteries & veins, allows diffusion to take place

Very thin walls

Redistribution of Blood Flow

Vasodilation



Blood vessels become wider, increasing the amount of blood that is delivered to active areas

Dilate = Diameter Increases

Vasoconstriction



Blood vessels become narrower, restricting the amount of blood that is delivered to inactive areas

Constrict = Diameter Decreases



PE COMPONENT 1 - CV SYSTEM

- **Arteries** carry blood at high pressure
- **Veins** carry blood at low pressure



Average Blood Pressure

This number refers to systolic blood pressure; The pressure of the blood as the heart contracts

130/
85

This number refers to diastolic blood pressure; The pressure of the blood as the heart relaxes

Heart Rate



The amount of **times** the heart beats each minute

Stroke Volume



The amount of **blood** that is **ejected** from the heart each beat

Cardiac Output



Heart Rate x Stroke Volume – The amount of blood that is ejected from the heart each minute

Anticipatory Rise



An **increase** in heart rate that typically occurs just before an activity is to be undertaken

