



## Vascular Shunting Mechanism

### Vasodilation

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

Dilate = Diameter Increases

### Vasoconstriction

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

Constrict = Diameter Decreases

- \_\_\_\_\_ in the heart open and close to allow blood to pass through
- Valves prevent the \_\_\_\_\_ of blood

Arteries → Carry blood \_\_\_\_\_ from the heart → \_\_\_\_\_ & muscular walls

Veins → Carry blood \_\_\_\_\_ the heart → Thin walls

Capillaries → Connect arteries & veins. Allows diffusion to take place → Very \_\_\_\_\_ walls



## PE COMPONENT 1 - CV SYSTEM



Blood is made up of four different components

One of these components are the **red blood cells**, also known as Erythrocytes



- Red blood cells are responsible for:
- transporting \_\_\_\_\_ to the working muscles
  - transporting carbon dioxide to the lungs



Red blood cells contain **Haemoglobin** - they carry oxygen from the lungs to the muscles & have no nucleus, allowing for more space for carrying oxygen



Heart Rate



The amount of times the heart \_\_\_\_\_ each \_\_\_\_\_

Stroke Volume



The amount of \_\_\_\_\_ that is ejected from the heart each \_\_\_\_\_

Cardiac Output



Heart Rate x Stroke Volume - The amount of \_\_\_\_\_ that is ejected from the heart each \_\_\_\_\_

