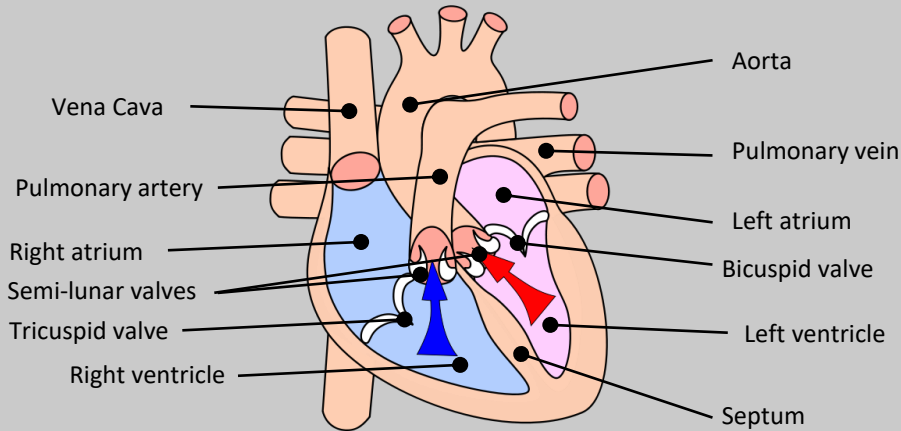
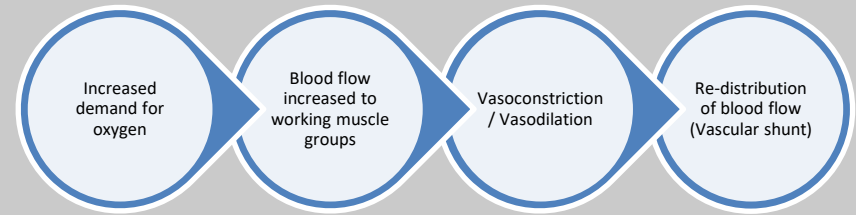


## Structure of the cardiovascular system



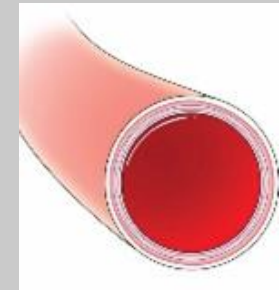
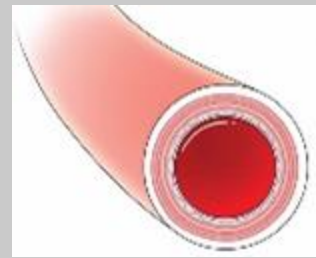
Deoxygenated blood = **BLUE** (Right side)  
Oxygenated = **RED** (Left side)

## Vascular Shunting



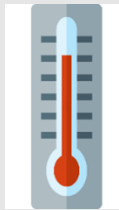
Vasoconstriction – **NARROWING**

Vasodilation - **EXPANDING**



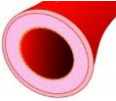

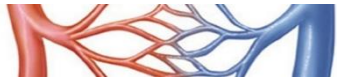
## Function of the cardiovascular system

- Transport of oxygen, carbon dioxide and nutrients
- Clotting of open wounds
- Regulation of body temperature



Cardiac Output (Q) = Heart Rate x Stroke Volume  
(l/min)                      (bpm)                      (mL per beat)

## Blood vessels

Arteries	Veins	Capillaries
<ol style="list-style-type: none"> <li>1. Away from the heart</li> <li>2. Oxygenated blood (except pulmonary artery)</li> <li>3. Thick/elastic walls</li> <li>4. High pressure</li> <li>5. Small lumen</li> </ol> 	<ol style="list-style-type: none"> <li>1. Back to the heart</li> <li>2. Deoxygenated blood (except pulmonary vein)</li> <li>3. Thin walls + larger lumen</li> <li>4. Lower pressure</li> <li>5. Valves</li> </ol> 	<ol style="list-style-type: none"> <li>1. In the tissue</li> <li>2. Site of gaseous exchange</li> <li>3. Very thin walls</li> </ol> 

## Components of blood - Red blood cells

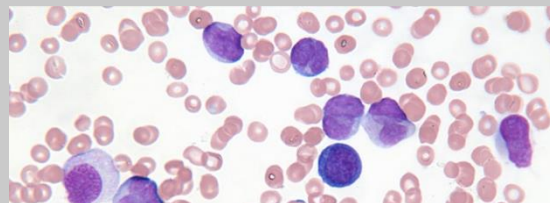
Carry oxygen from the lungs to the working muscles + Removes CO<sub>2</sub>.

**Haemoglobin** binds the oxygen



## White blood cells

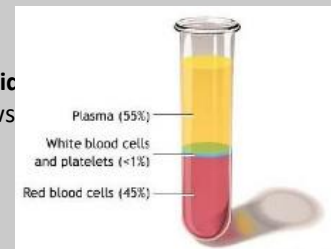
Are part of the immune system and **fight disease** and infection.



## Platelets & Plasma

Platelets **clot blood** and form a scab around the site of injury.

Plasma is the **liquid/fluid** part of blood that allows it to flow.



# Ken Stimpson GCSE Physical Education – The Cardiovascular System

Term	Definition/notes/concept

Keywords: