Health

A state of complete **physical, emotional** and **social** well-being, and not merely the absence of disease and infirmity.

Fitness

The ability to meet the **demands** of the **environment**.

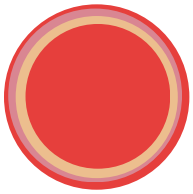
Stroke Volume - The volume of blood pumped out by the heart ventricles in each contraction

Cardiac Output - The volume of blood pumped out by the heart ventricles per minute
= HR x SV

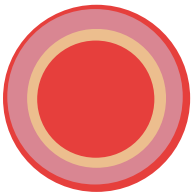
MAX HR
=
220 - Age

Venous Return - The flow of blood back to the heart,via the veins and specifically the vena cava

Increases in exercise

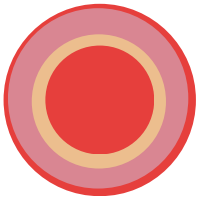


Vasodilated artery

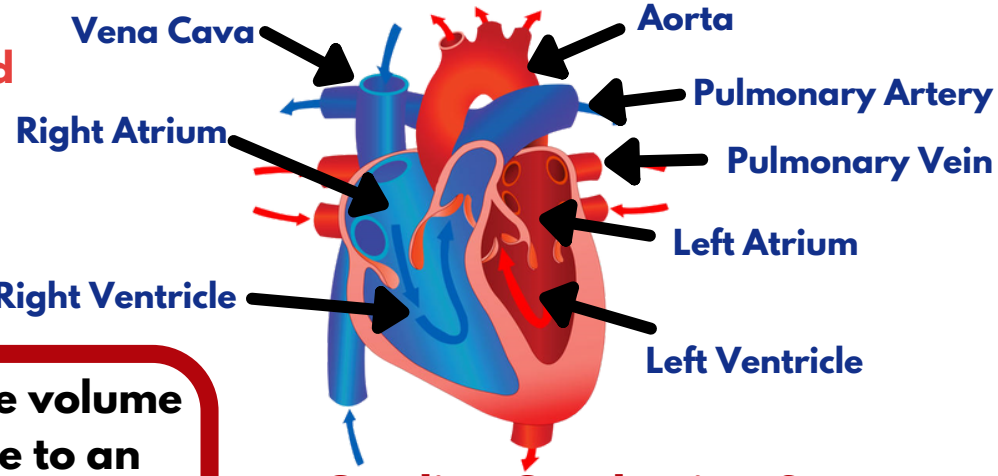


Normal artery

Applied Anatomy and Physiology - CV System



Vasoconstricted artery



Starling's Law - Stroke volume increases in response to an increase in venous return.

Cardiac Conduction System

Sinoatrial Node (SAN)

↓

Atrial Contraction

↓

Atrioventricular Node (AVN)

↓

Bundle of His

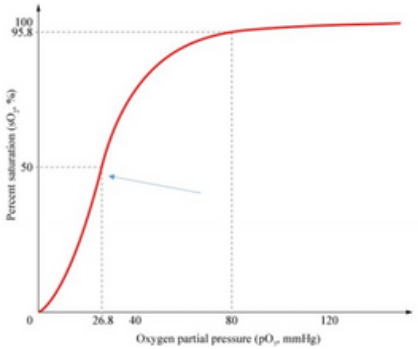
↓

Purkinje Fibres

↓

Ventricular Contraction

Oxyhaemoglobin Dissociation Curve



A-VO2 Diff - The **DIFF**erence in the volume of oxygen between the arteries and veins.