

Non-Communicable Diseases

The Heart & Blood

**Enzymes**

**BU2- Organisation**

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| Disease | Cause | Treatments |
| Type 2 Diabetes | High Carbohydrate/ sugar diet | Medication Exercise Diet  |
| Chronic Heart Disease | No exercise, high fat diet. Poor lifestyle | Exercise, Diet, Statins, Stents, Valve Replacement, Heart Transplant |
| Obesity | Poor diet, no exercise, poor lifestyle | Exercise, balanced diet, Gastric band  |
| Liver Cirrhosis  | Excessive alcohol | Stop drinking alcohol, medication, liver transplant  |



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| **Enzyme** | **Where is it found** | **breaks down** | **Breaks down into** |
| **Carbohydrase** | Mouth, Pancreas, Small intestine | Carbohydrates | Glucose |
| **Protease** | Mouth, Stomach, Small Intestines, Pancreas | Proteins | Amino acids |
| **Lipase** | Pancreas, Small intestine | Fats | Glycerol & Fatty acids |

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| **Arteries** | **Veins** | **Capillaries** |
| Carry blood away from heart | Carry blood towards heart | Diffusion of substances |
| Narrow lumen, thick walls for high pressure | Thin walls, wider lumen, valves to prevent back flow | One cell thick, thin to allow for the diffusion of substances |

Double Circulatory System

The right side of the heart is pumping blood from the heart to the lungs.

The left side of the heart is pumping blood to the body

Plant Structure & Function





Composition of the blood

Plasma- contains dissolved substances, cells and cell fragments.

Red blood Cells- Contains haemoglobin that carries oxygen around the body.

White Blood Cells-Protect against pathogens

Platelets- Help the blood to clot

**Active Transport-** Movement of ions across a membrane from a low to high concentration.

**Transpiration-** is when a plant absorbs water in its roots.