Biology

Cardiovascular disease

- Cardiovascular disease mean diseases of the heart or blood vessels
- Example
- Coronary heart disease, when fat builds up in the coronary arteries (blood vessels that bring the blood to the heart)
- This makes the arteries narrow, so less oxygen reaches the heart
- This can cause a heart attack

Stents

- Stents are tiny tubes placed inside arteries to keep them open
- this allows blood to flow normal to the heart muscle

advantages

- lower risk of heart attack
- long lasting affect
- quick recovery

Disadvantages

- risk of infection or blood clot
- complications during surgery

Statins

- Statins are drugs that lower “bad” cholesterol in the blood
- This Slows down fatty deposit forming in arteries

Advantages

- reduce risk of stroke, CHD and heart attack
- may help prevent other diseases

Disadvantages

- must be taken regularly for the life
- Side Effects are such as headache, liver damage, kidney failure and memory loss

Artificial heart

- Used when the heart fails and no Donor heart is available
- it is mechanical heart that pumps blood
- used as temporary fixed until the donor heart is found

Advantages

- less likely to be rejected by the body

Disadvantages

- risk of infection bleeding and clothes
- doesn't work as well as a real heart
- patient must take blood thinning drugs

Faulty heart valves

- Heart valves can get damage by heart attack infection or old age
- Damaged walls may not open properly or leak blood
- treatment is valve replacement
- biological valves from human or animals
- mechanical valves such as like man made
- still major surgery with risk of blood clothes

Artificial blood

- used when someone loses a lot of blood in an accident
- it is blood substitute like a salt solution that keeps the volume of blood stable
- scientists are working to make artificial blood that carries oxygen

Health and the disease

What is health?

health is being physically and mentally well

Ill Health can be caused by

- Diseases
- poor diet
- Stress
- Life situation like excess of medicine or clean food

Types of disease

there are two types of diseases

1. communicable diseases
   - They are spread from one person or animal to another such as flu malaria
2. non communicable diseases
   - Do not spread they are long term such as cancer asthma cht

How diseases interact

- weak immune system more likely to get infections
- some viruses can cause cancer such as HPV causes cervical cancer
- infections can Trigger allergies or asthma
- physical illness can cause mental health problems such as depression

Risk factors for non communicable diseases

What are risk factors

Things that increase the chance of getting a disease

Example

- Smoking
- Obesity
- too much alcohol
- lack of exercise
- Pollution
- Stress

They don't always cause the disease but make it more likely to happen

Examples of direct causes

- **Smoking, it can cause lung cancer heart disease and damage arteries**
- **Obesity, it can cause type 2 diabetes**
- **Alcohol, it can cause liver disease and brain damage**
- **smoking or drinking during a baby will harm a baby**
- **radiation and carcinogens, cause cancer by damaging DNA**

Cost of disease

human cost pain, suffering

financial cost expensive treatment, lost jobs affect families and economy