ARTIFICIAL KIDNEY(HAEMODIALYSIS) Slide 1&2

Kidneys are vital organs for survival.

Several factors like infections, injury or restricted blood flow to kidneys reduce the activity of kidneys.

This leads to accumulation of poisonous wastes in the body, which can even lead to death.

In case of kidney failure, an artificial kidney can be used.

An artificial kidney is a device to remove nitrogenous waste products from the blood through dialysis.

Artificial kidneys contain a number of tubes with a semi-permeable lining, suspended in a tank filled with dialysing fluid.
This fluid has the same osmotic pressure as blood, except that it is devoid of nitrogenous wastes.

The patient's blood is passed through these tubes.

During this passage, the waste products from the blood pass into dialysing fluid by diffusion.
The purified blood is pumped back into the patient.

This is similar to the function of the kidney, but it is different since there is no re-absorption involved.

EXCRETION IN PLANTS Slide 3

- Plants use completely different strategies for excretion than those of animals.
- Oxygen itself can be thought of as a waste product generated during photosynthesis!
- They can get rid of excess water by transpiration.
- For other wastes, plants use the fact that many of their tissues consist of dead cells, and that they can even lose some parts such as leaves.
- Many plant waste products are stored in cellular vacuoles.

- Waste products may be stored in leaves that fall off.
- Other waste products are stored as resins and gums, especially in old xylem.
- Plants also excrete some waste substances into the soil around them.

Source: Science text book, Google