

CHAPTER 3: EXCRETION

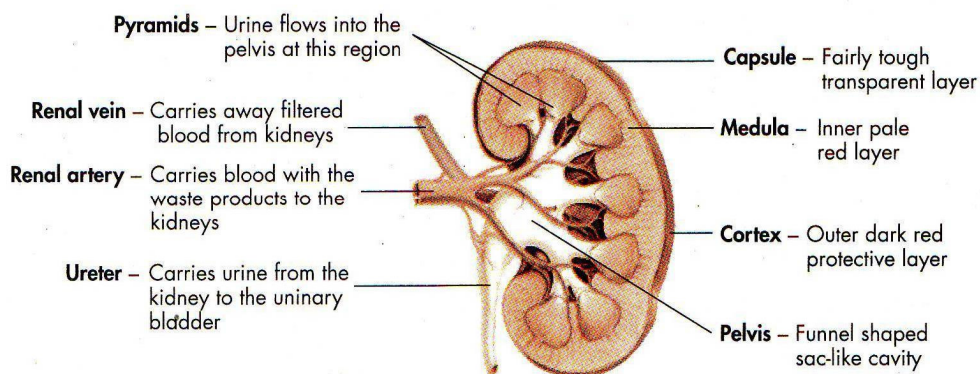
3.1 Excretion In Human

- Excretion is a process in which living things remove waste and other unwanted substances from their body.
- The table below shows the excretory products that are eliminated by the excretory organs.

Excretory Organ	Excretory Products	Excretory Method
Skin	Water, mineral salts and urea	Sweating
Lungs	Water and carbon dioxide	Exhalation
Kidneys	Water, mineral salts and urea	Urination

3.2 The Human Urinary system

- The kidney is a dark red, broad bean-shaped organ.
- It is located at the back of the abdomen.
- The parts of a kidney are the cortex, medulla and pelvis.
- Functions of the kidney:
 - (a) To filter blood and remove waste products like urea, excess mineral salts and water in the form of urine.
 - (b) To regulate water and chemical balance in the body.
- Kidney failure can be treated by dialysis treatment, and kidney transplant.
- The diagram below shows the structure of a human kidney.







3.3 Excretion In Plants

- The waste products of plants are carbon dioxide, water, oxygen, excess mineral salts and nitrogenous waste.
- Useful excretory products:

EXCRERORY PRODUCT	SOURCE	USE
Latex	rubber tree	tyre, gloves, mattresses
Resin	tree stem: casuarina tree	varnish, gum
Gum	tree stem: acacia tree	cough medicine
Tannin	grape, tea tree	ink
Quinine	bark of cinchona	medicine for malaria

- Harmful excretory products:

Picture	Toxin	Use	Abuse
 Poppy fruit	Morphine	Pain Killer	Hallucinogen
 Tobacco leaves	Nicotine	Pain Killer	Cigarettes Cigar
 Coca Leaves	Cocaine	Anaesthetic	Hallucinogen
 Cannabis	Marijuana (from flower, leaves)	Stimulant Anti-nausea Glaucoma Treatment	Hallucinogen