

Definitions and Concepts for CAIE Biology IGCSE

Topic 13: Excretion in Humans

*Definitions in **bold** are for supplement only*

Assimilation - The movement of simple food molecules into the cells of the body where they are used.

Cortex - The outer region of the kidney.

Deamination - The removal of the amino group from a molecule. In the liver, amino acids are deaminated to form ammonia, which is then converted to urea.

Dialysis - A medical procedure that artificially filters the blood of patients with kidney failure. It relies on a partially permeable membrane between the patient's blood and dialysis fluid.

Dialysis fluid - A solution of glucose and salts that is used in kidney dialysis. It has a similar concentration of glucose and ions to that found in normal plasma. It does not contain urea.

Excretion - The process of removing metabolic waste from an organism. Excretory products include urea, carbon dioxide, excess water and salts.

Glomerulus - A bundle of capillaries located in the renal capsule of a nephron adapted for the filtration of glucose, urea, water and salts from the blood.

Kidney - One of a pair of organs in the abdomen that has a role in the excretion of urea and excess water and salts.

Liver - The organ in which digested food molecules are assimilated. It is also involved in deamination.

Medulla - The inner region of the kidney.

Nephron - The functional unit of the kidney consisting of a single glomerulus with a renal capsule, renal tubule and capillaries.

Renal arteries - Blood vessels that carry oxygenated blood to the kidneys.

Renal tubule - The coiled region of the nephron which joins to a collecting duct. All glucose, most water and some salts are reabsorbed into the blood in the renal tubule.

Renal veins - Blood vessels that drain the kidneys.

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Transplant - A medical procedure in which an organ or tissue in an individual is replaced.

Urea - A toxic chemical produced from the breakdown of excess amino acids in the liver.

Ureter - A tube that takes urine to the bladder from the kidneys.

Urethra - A tube that releases urine from the bladder, out of the body.

Urine - The waste product of the kidneys that contains urea, excess water and excess ions. The volume and concentration of urine depends on water intake, exercise and temperature.

