Life Processes
Hemodialysis

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Excretion is a biological process of eliminating waste and toxins from the body of an organism. Waste is excreted from the human body in the form of urine. Urine is composed of 95% water and rest is the mineral waste. The kidney is the chief organ in which the formation of urine takes place.

The urine formation takes place in three steps-

1.Filtration- It takes place in the glomerulus of the nephron by the process of ultrafiltration of blood. All the constituents of the blood plasma reach Bowman 's capsule except protein. Wastes like urea, creatinine are excreted from the blood.

2.Reabsorption- The filtrate obtained from the glomerulus is reabsorbed in the renal tubules. Most of the water is reabsorbed by the Henle's loop.

3.Secretion- By this process the ionic, acid-base balance of our body is maintained. The tubular cells secrete ions like hydrogen, sodium potassium into the filtrate.

Dialysis is a way of cleaning your blood when your kidneys can no longer do the job. It gets rid of your body's wastes, extra salt and water, and helps to control your blood pressure.

There are two kinds of dialysis. In hemodialysis, blood is pumped out of your body to an artificial kidney machine, and returned to your body by tubes that connect you to the machine. In peritoneal dialysis, the inside lining of your own belly acts as a natural filter. Wastes are taken out by means of a cleansing fluid called dialysate, which is washed in and out of your belly in cycles.

A soft plastic tube (catheter) is placed in your belly by surgery. A sterile cleansing fluid is put into your belly through this catheter. After the filtering process is finished, the fluid leaves your body through the catheter.