

Urinary system

Many of the body's waste products are passed out of the body in urine. The urinary system is made up of kidneys, bladder, ureters and the urethra.

Kidneys

The human body has two kidneys, one on either side of the middle back, just under the ribs. Each kidney contains thousands of small filters called nephrons. Each nephron has a mesh of capillaries, connecting it to the body's blood supply. Around 180 litres of blood sieve through the kidneys every day. The main functions of the kidney include:

- Regulating the amount of water and salts in the blood
- Filtering out waste products
- Making a hormone that helps to control blood pressure.

Ureters

Each kidney has a tube called a ureter. The filtered waste products (urine) leave the kidneys via the ureters and enter the bladder.

Bladder

The bladder is a hollow organ that sits inside the pelvis. It stores the urine. When a certain amount of urine is inside the bladder, the bladder 'signals' the urge to urinate. Urine contains water and waste products like urea and ammonia.

Urethra

The urethra is the small tube connecting the bladder to the outside of the body. The male urethra is about 20 centimetres long, while the female urethra is shorter, about four centimetres. At the urethra's connection to the bladder is a small ring of muscle, or sphincter. This stops urine from leaking out.

Common problems

Some of the more common problems of the urinary system include:

- **Bladder infections** - (cystitis) usually caused by bacteria.
- **Enlarged prostate** - in men, this can make it difficult to empty the bladder.
- **Incontinence** - when urine leaks out of the urethra.
- **Kidney infections** - when a bladder infection 'backs up' the ureters.
- **Kidney stones** - caused by infection and high blood levels of calcium.

Things to remember

- Kidneys filter and regulate the blood.
- Most waste products are removed from the body by the urinary system.
- Waste products are passed in urine.

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