Bitesize Guide to:

Kidney Stones

Kidney stones are a common condition, particularly if you have a family history of them. Some go unnoticed but others can cause mild to extreme discomfort. It is important to be aware of the symptoms to receive treatment quickly. This is our bitesize guide to the condition.

What is it?

Kidney stones are stone-like nuggets that form in the kidneys. They consist of waste materials that have been filtered from the blood. They can either be very small, similar to grit, or very large, and take up significant space in the kidney. Most kidney stones contain calcium.

Smaller stones can pass through the body without detection. Larger stones, however, usually make themselves felt by causing:

- Feverish symptoms, such as a high temperature, tiredness and vomiting.
- Blood in the urine.
- Pain spreading from the back to your lower abdomen (below the belly button) and genitals.

Who gets it?

Kidney stones can affect both men and women, although men are at a higher risk. They usually occur between the ages of 20-50.

Why does it happen?

The kidneys filter out unwanted materials from your blood. These bits of waste materials can form very small crystals, which become kidney stones over time.

In many cases, it is uncertain why this build-up happens. It is thought that kidney stones are more likely to occur if your urine is more concentrated. This could happen if an individual is not drinking enough, not urinating enough, or if one is losing more fluids through sweating and less through urination. In a minority of cases, another medical condition could cause kidney stones to build up.

Diagnosing Kidney Stones

If you are experiencing any symptoms associated with kidney stones, book an appointment with your GP. Your doctor will ask you about your symptoms, medical history, and lifestyle. They will want to know about your diet, how much you drink, and if you have spent time in a hot climate. In these consultations, your GP will usually examine your stomach. If your doctor

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thinks you have kidney stones, there are a number of tests that can be done to confirm this diagnosis:

- Urine and blood tests - To look for signs of infection and crystals, and to check for raised levels of chemicals that make up kidney stones, such as calcium and uric acid
- X-Ray - 90% of kidney stones are visible by x-ray
- Intravenous Pyelography (IVP) test - A dye is injected into a vein, traveling around your kidneys and revealing any stones and blockages via x-ray
- Computer Tomography (CT) scan - A 3D image is formed by combining multiple x-rays

Treating Kidney Stones

If the stones are only small, you may be advised to take painkillers and drink lots of water to flush them out. Other methods can be used to remove larger kidney stones:

- Extracorporeal shockwave lithotripsy (ESWL) - Ultrasound waves are sent through the skin, breaking down kidney stones and allowing them pass out of the body in smaller fragments
- Ureteroscopy - The surgeon inserts a tube up in the urethra (the pipe that takes urine out of your body) which can be used to pass instruments through to crush the stones
- Percutaneous Nephrolithotomy (PCNL) - This procedure involves breaking the stones with a nephroscope, an instrument that applies energy waves to kidney stones
- Open surgery - Rarely used, reserved to take out very large stones.

4 Key Facts about Kidney Stones

1. 25% of patients with kidney stones have a family history of the condition.
2. About 10% of the population will have a kidney stone during their lifetime.
3. Other symptoms of kidney stones include needing to pee more frequently and experiencing pain when peeing.
4. Some types of medication, such as aspirin and calcium supplements, can increase your chances of developing a kidney stone.

If you think you may have kidney stones, speak to your healthcare professional.

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