

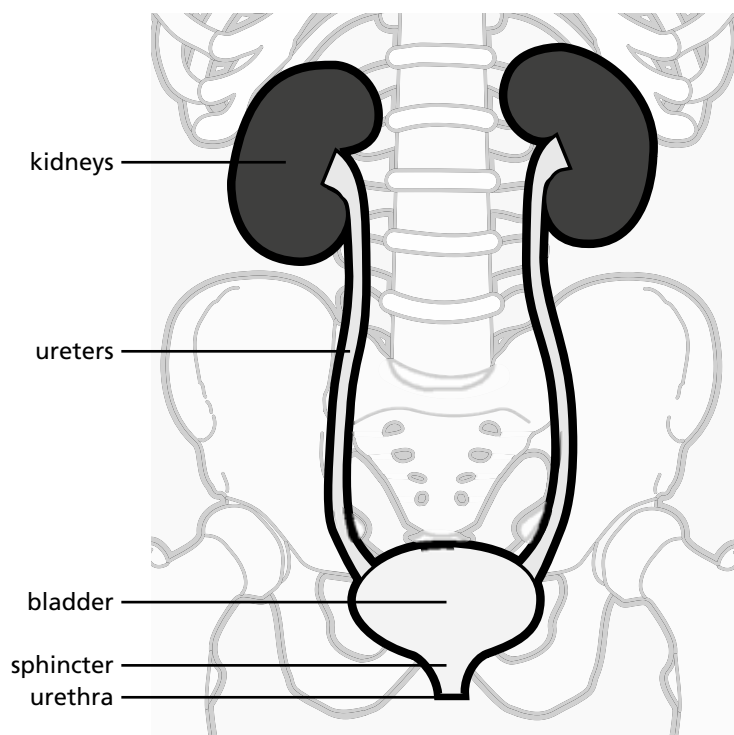


Malformed bladder

This information sheet from Great Ormond Street Hospital explains the causes, symptoms and treatment of malformed bladder and where to get help.

Malformed bladder is used to describe any abnormality in the way in which the bladder (where urine is stored before being expelled from the body) is constructed. It is present from birth (congenital) and, since it affects the body's ability to get rid of urine, requires treatment straight away.

A malformed bladder is extremely rare. For example, one type of malformed bladder called bladder exstrophy (where the bladder is open and exposed on the outside of the abdomen) only affects one in 40,000 newborns.



What causes malformed bladder?

The urinary system consists of the kidneys, the bladder and ureters. The kidneys filter the blood to remove waste products and form urine. The urine passes along the ureters to the bladder, which is held closed by a ring of muscle (sphincter) at the junction of the bladder and the urethra.

When peeing, the muscles of the bladder wall squeeze the urine out of the bladder, at the same time as the muscles in the sphincter need to relax to let the urine flow down the urethra.

The valves between the ureters and bladder prevent urine flowing backwards into the ureters, so that all the urine in the bladder is passed in one go, as the urine cannot travel anywhere else. As the urine leaves the bladder at a high pressure, the valves stop this high pressure being passed on to the kidneys.

A malformed bladder occurs when the baby's urinary system does not develop correctly. While they are in the womb. So, instead of the tissues and organs forming sealed compartments, the bladder (or the lining of the bladder) may be incomplete, or the link between the bladder, ureter or urethra may be broken.



A malformed bladder rarely occurs in isolation – a child often has other problems with their urinary system, or the bladder abnormality may itself be a symptom of spina bifida (where a baby's spinal cord and the bones that surround it have not formed properly).

It is not known exactly what causes these abnormalities. There may be a genetic link but research is ongoing – for example, bladder exstrophy affects two to three times more boys than girls and people born with bladder exstrophy have a one in 70 chance of themselves giving birth to a baby with bladder exstrophy.

What are the signs and symptoms of malformed bladder?

Any abnormality in the bladder will be visible from birth.

How is malformed bladder normally treated?

It is likely that the child will need surgery within the first few days after birth. This is to prevent any kidney damage and correct any abnormalities so that the child's urinary system and genitals work properly and look as normal as possible.

If the muscle of the bladder wall is not fully formed (meaning the bladder cannot be emptied naturally), the child may also need a catheter or a specially created

channel (called a Mitrofanoff) to help them pass urine.

Depending on the extent of the malformation, they may also need a series of operations over the first few years of their life. The child's urology surgeon (specialist in problems affecting the urinary system) will explain the available options.

What happens next?

The child will need regular check ups to make sure that everything is working properly – at Great Ormond Street Hospital for Children NHS Trust (GOSH) until they are 16 years old, and then with adult urology services. We will work with the child to make the transfer from children's to adult services as smooth as possible.

The child's external genitalia may look different as a result of surgery but this should not cause them any problems with their sex lives or prevent them becoming parents themselves.

Notes

Compiled by the GOSH web team in collaboration with the Child and Family Information Group

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