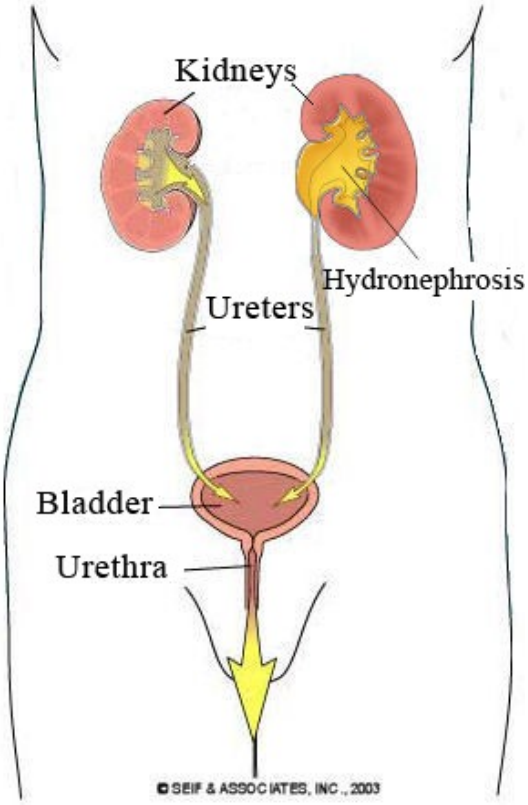
Hydronephrosis

Hydronephrosis is an abnormal enlargement of your kidney. It can affect one or both the kidneys. It results from the backward pressure of urine on the kidneys, when the flow of urine is blocked. Normally, the urine drains from the kidney through the urine tube (*ureter*), into a sac which holds the urine until urination (*urinary bladder*). When the urinary flow is blocked, the urine collects above the block. This causes an increase in the pressure inside the kidney, which in turn leads to its enlargement. The block can occur at the point where the kidney joins the ureter. About 3 in 100 people may have this condition. Treatment depends on the cause and location of the block.



CAUSES

The causes of this condition include:

- Birth defect of the kidney or ureter.
- Kink at the point where the kidney joins the ureter.
- Stones and blood clots in the kidney or ureter.
- Cancer, injury, or infection of the ureter.
- Scar tissue formation.
- Backflow of urine (*reflux*).
- Cancer of bladder or prostate gland.
- Abnormality of the nerves or muscles of the kidney or ureter.
- Lower part of the ureter protruding into the bladder (*ureterocele*).
- Abnormal contractions of the bladder.
- Both the kidneys can be affected during pregnancy. This is because the enlarging uterus presses on the ureters and blocks the flow of urine.

SYMPTOMS

The symptoms depend on the location of the block. They also depend on how long the block has been present. You may feel pain on the affected side. Sometimes, you may not have any symptoms. There may be a dull ache or discomfort in the flank. The common symptoms are:

- Flank pain.
- Swelling of the abdomen.
- Pain in the abdomen.
- Nausea and vomiting.
- Fever.
- Pain while passing urine.
- Urgency for urination.
- Frequent or urgent urination.
- Infection of the urinary tract.

DIAGNOSIS

Your caregiver will examine you after asking about your symptoms. You may be asked to do blood and urine tests. Your caregiver may order a special x-ray, ultrasound, or CT scan. Sometimes a rigid or flexible telescope (*cystoscope*) is used to view the site of the blockage.

TREATMENT

Treatment depends on the site, cause, and duration of the block. It aims at removing the blockage. Your caregiver will plan the treatment based on your condition. The different types of treatment are:

- Putting in a soft plastic tube (*ureteral stent*) to connect the bladder with the kidney. This will help in draining the urine.
- Putting in a soft tube (*nephrostomy tube*). This is placed through skin into the kidney. The trapped urine is drained out through the back. A plastic bag is attached to your skin to hold the urine that has drained out.
- Antibiotics to treat or prevent infection.
- Breaking down of the stone (*lithotripsy*).

HOME CARE INSTRUCTIONS

- It may take some time for the hydronephrosis to go away (*resolve*). Drink plenty of fluid, and get a lot of rest.
- If you have a drain in, your caregiver will give you directions about how to care for it. Be sure you understand these directions completely before you go home.
- Take any antibiotics, pain medications, or other prescriptions exactly as prescribed.
- Follow-up with your caregivers as directed.

SEEK MEDICAL CARE IF:

- You continue to have flank pain, nausea, or difficulty with urination.
- You have any problem with any type of drainage device.
- Your urine becomes cloudy or bloody.

SEEK IMMEDIATE MEDICAL CARE IF:

- You have severe flank and/or abdominal pain.
- You develop vomiting and are unable to hold down fluids.
- You develop a fever above 100.5° F (38.1° C), or as per your caregiver.

MAKE SURE YOU:

- Understand these instructions.
- Will watch your condition.
- Will get help right away if you are not doing well or get worse.

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