UROSTOMY ASSOCIATION
INCORPORATING ALL TYPES OF URINARY DIVERSION
DIGNITY WITH EMPATHY
Registered charity no.: England & Wales 1131072; Scotland SCO47740

Urinary infections in people with urinary diversions

People with a urinary diversion may be more susceptible to urinary tract infections. These are usually mild and self-limiting but may be severely debilitating and affect quality of life. Recurrent urinary tract infections may also cause deterioration in kidney function. This leaflet aims to explain and provide help with these problems.

Urinary diversions are performed for many reasons including bladder failure, congenital anomalies and cancer.

Why does urinary infection occur?

- **Urostomy**

  Usually a length of small bowel (ileum) is used to form the conduit, which transports the urine through the urinary stoma into a collecting pouch on the abdomen. This isolated piece of bowel still has connections to the blood vessels and nerves which supply the rest of the bowel. Bacteria may already be present in the bowel segment or may come from the outer stoma. The join of the ureters (tubes from the kidneys) into the conduit allows free reflux of urine back into the kidneys. Those with a urostomy have, therefore, a potential route for infections from the skin into the conduit and up into both ureters. Obstruction or slow drainage of any part of the urinary tract may result in infection as colonising bacteria overgrow. Bacteria can also adhere to mucus which is secreted by the piece of bowel used to form the urostomy allowing colonisation.

- **Continent urinary diversion (eg Mitrofanoff) and neo-bladder**

  During this surgery a much larger portion of bowel is used to form the pouch or neo-bladder. There is, therefore, a larger quantity of mucus which bacteria can adhere to and, if not flushed away with adequate fluids or washouts, a urinary infection or stones may develop.

Preventing urinary infections

- **Urostomy**

  People with a urostomy are advised to drink 2–3 litres of fluid daily to produce a good urine flow and flush out any bacteria. Unfortunately, urinary tract infections may still occur and some people seem more prone to infections than others.

  It is advisable to keep the urine slightly acid. Certain bacteria produce an enzyme which results in alkaline urine. Crystals may then form in the urine which will irritate the stoma and peristomal skin, causing bleeding and encrustation.

  Cranberry juice is acidic and is best taken as a capsule. It must not be taken if you are taking warfarin, or other blood thinning drugs.

  Vitamin C is secreted by the kidneys, and so has to be taken in very high doses (4–12g daily) to be effective. However, you should seek medical advice as it can interfere with other medication and also cause gastric upsets.

- **Continent urinary diversion and neo-bladder**

  People with a continent urinary diversion or neo-bladder should ensure that the pouch/bladder is emptied completely. Regular washouts of the pouch/bladder are advised if mucus is excessive.

How do I know if I have a urinary infection?

Symptoms

Sometimes at the start of a urinary infection symptoms may be vague with cloudy, offensive smelling urine accompanied by feeling unwell with pain around the kidney area. Submit a urine specimen as soon as possible and increase your fluid intake. Your GP will probably give you antibiotics straight away, but these may then need to be changed when the results of the urine test are confirmed. At this stage you may feel unwell, but not ill enough to go to bed. However, if a urinary infection is not treated promptly this may become more serious. Acute pyelonephritis is inflammation of the kidney and you may feel quite ill with some or all of the following symptoms:

- Sudden onset of shaking
- High temperature
- Flu-like symptoms
- Sweating
- Cloudy, offensive smelling urine
- Haematuria (blood in the urine)
- Kidney pain
- Nausea and vomiting

If your symptoms are severe your GP should be notified immediately to collect a urine sample and prescribe some antibiotics. Bed rest is recommended if you feel very unwell. If symptoms do not respond within 24–48 hours or you are unable to keep fluids down, you should telephone your GP as it may be necessary for you to be admitted to hospital for intravenous fluids and antibiotics. Less troublesome symptoms may not need antibiotic treatment.

Obtaining a urine sample

A urinary infection is diagnosed by examining a urine sample under a microscope and then culturing the bacteria in the sample to allow accurate identification of the infecting organism and the testing of its antibiotic sensitivities.

Taking the sample correctly

- **Urostomy**

  Ideally the stoma should be cleaned and a urine sample taken directly from inside the stoma with a sterile catheter and labelled as a 'stomal catheter sample'. Alternatively a sample may be taken by holding a sterile receptacle beneath the stoma, without touching it, to collect the dripping urine. The specimen should detail that the sample is from a urostomy to enable microbiological interpretation.

  It should be noted that in the absence of symptoms, the culture of organisms from a conduit or neobladder reflect simple colonisation and not an infection requiring treatment.

NOTE **It should be noted with the sample, that it is either from a urostomy, continent diversion or neo-bladder, so that the person analysing the urine is aware of your situation.**

- **Continent urinary diversion**
  A specimen may be obtained from a continent urinary diversion (with catheterisable channel) by using a sterile catheter and should detail the sample is from this type of diversion.
- **Neo-bladder**
  If you are able to pass urine normally (urethrally) from your neo-bladder you will be asked to discard the first few drops and then collect a specimen into a sterile container. If you empty your neo - bladder via a catheter you should use a sterile catheter.
  Again the specimen should detail the sample is from this type of diversion.

Further investigation

If you have recurrent urinary tract infections, your Urologist may recommend further investigations to identify a cause. Sometimes a kidney stone may be present, or there may be a problem within the urinary diversion causing delayed drainage. If urine does not drain freely bacteria will multiply and cause a urinary infection.

Investigations that may be recommended are:

- Blood tests
- Ultrasound kidney scan
- CT Urogram
- Radioactive scan of the kidneys (Renogram)
- Loopogram, a test of the ileal conduit (if you have a urostomy)
- A telescopic examination
- Cystogram

Not all of these investigations may be necessary.

NOTE **Not all of these investigations may be necessary.**

For further information contact the Urostomy Association National Office
2 Tyne Place · Mickleton
Chipping Campden
GL55 6UG
✆01386 430140
Email: info@urostomyassociation.org.uk

www.urostomyassociation.org.uk

COMPANY NUMBER 6918246 PRINT DATE JULY 2020; REVIEW DATE JULY 2023