

## **Recurrent Urinary Tract Infections (rUTI)**

Urinary tract infections are common, women have a risk of 40% of getting one UTI or “cystitis” in their lifetime. rUTI is used to describe situations where infection follows the complete resolution of the previous UTI, generally after treatment with antibiotics. rUTI occurs in a quarter of women after their first UTI, it seems rather unfair amongst women that there will be those who have repeated UTI and those who have never had a urinary tract infection at all. rUTI may be due to relapse of the original organism/bacteria (“bug”) or to reinfection with the same or a different bug. It is defined as **three** or more urinary tract infections in one year. A proven infection on pathology is helpful.

Relapse of infection is defined as recurrence of infection with the same bug within 7 days (bacterial persistence). The more common situation is that the bug is eradicated and then reinfection follows 14 days or longer with the same or different bug.

There are risk factors for rUTI and these include vaginal prolapse, kidney stones, diabetes, congenital (born with) abnormalities and a list of other conditions that are much less common. A simple way to check for many of these conditions is to perform a renal tract ultrasound. A clinical examination including a pelvic examination is important to identify some of the conditions that may predispose to infection. The **three** factors in women that need to be addressed are poor emptying, incontinence, and low oestrogen in post-menopausal women.

It is also important to accurately document any UTI with a microbiological test of a urine sample. This is because some women report symptoms very similar to UTI and in fact have a different condition and no UTI found on repeated testing. In those who do have infection, important information from testing is gained about the bug causing the infection and the antibiotics that are appropriate for that bug.

After appropriate antibiotic treatment and testing to exclude possible risk factors, there are some things that are done simply to attempt to prevent reinfection. Think of UTI as a war between yourself and the bug. For some women there are specific genetic factors that make it easier for the bug to ascend (or climb) the urethra, or the tube from the outside into the bladder.

To make it harder for these bugs to climb the following is suggested:

- Wiping from “front to back” after going to the toilet
- Going to the toilet after intercourse and/or taking a cranberry or a low dose antibiotic
- Taking cranberry tablets which make it more difficult for the bugs to adhere to the lining of the urethra and bladder

- Taking 500mg of Vitamin C morning and night as this makes the urine acid which the bacteria don't like
- Keeping up your oral fluids (not too much caffeine)
- Correcting any oestrogen (female hormone) deficiency with topical oestrogen cream or pessaries if you are post-menopausal
- Taking probiotics (for example inner health) which increases a number of good bacteria in the perineal area which then compete with the bacteria or bugs causing urinary tract infection
- Don't overfill the bladder and hold on too long, this can reduce emptying
- Keep your bowels regular. This is very important; you may be recommended to see a physiotherapist regarding this and improving bladder emptying.

It is also important to correct any other potential risk factors for recurrent UTI. This includes controlling diabetes, losing weight where possible, discontinuing spermicides and sometimes double voiding to assist with bladder emptying.

For some patient's there is a clear precipitant, such as post intercourse infection. In this instance a single low dose of antibiotics can be prescribed to take after intercourse to prevent infection. Some patients also manage their infections with "self-start" therapy where they carry a prescription for an antibiotic they have received in the past and at the first sign of infection, they get started. You should also submit a urine specimen before you start the antibiotics in this instance.

Occasionally a course of low dose "preventative" antibiotics is given but this causes the risk of increasing resistance in the infections that occur after the antibiotics are stopped.

Vaccines against the bugs are available in New Zealand but not Australia. Please let me know if you are travelling and would like to explore this option.

In summary:

1. Reverse any factors like emptying, incontinence, low oestrogen, bad diabetic control, and poor bowel function.
2. Use post intercourse antibiotics if sexually active.
3. Always collect an MSU to ensure the diagnosis is correct.
4. Thoroughly treat infection so the bladder lining "heals": making it harder for a next bug to infect it. Sometimes a repeat course of antibiotics is given. Always finish courses of antibiotics even if you feel well.