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Recurrent cystitis in women

Some women have recurring bouts of cystitis, sometimes defined as two proven infections within six months, or three infections in a year.

What is recurrent cystitis?

Cystitis means inflammation of the bladder. It is usually caused by a urine infection. Some women have repeated bouts of cystitis. Doctors define a recurrent infection as either three proven separate infections in a year, or as two in six months. In many cases there is no apparent reason for a woman to get frequent attacks of cystitis.

There are a number of treatment options to consider. This might be treating each episode promptly with a short course of antibiotics, a regular low dose of antibiotics taken long-term, or taking a single dose of antibiotic after having sex (if having sex seems to trigger episodes of cystitis). You can read more about cystitis in the separate leaflet called Cystitis in women.

What causes recurrent cystitis?

In most cases, there is no apparent reason why cystitis returns. There is usually no problem with your bladder or defence (immune) system that can be identified.

It is possible there may be a slight alteration in the ability of your body to resist bacteria getting into the bladder and causing infection. A slight variation in the body's defence may tip the balance in favour of bacteria to cause infection. In a similar way, some people seem more prone to colds, sore throats, etc.

For some women, one of the following may contribute:

- **Bladder or kidney problems** may lead to infections being more likely. For example, kidney stones, or conditions that cause urine to pool and not drain properly. Your doctor may arrange some tests if a problem is suspected.
- **Having sex** increases the chance of cystitis in some women (see below).
- **Contraceptive choice**: the use of diaphragms and spermicide may make cystitis more likely.
- **Hormones**: your vagina, bladder and urethra respond to the chemical (hormone) called oestrogen. After the menopause, when the levels of oestrogen in the body reduce, the tissues of these organs become thinner, weaker and dry. These changes can increase the risk of recurrent cystitis. Cystitis is also more common during pregnancy because of changes in the urinary tract.

What can I do to help prevent cystitis?

Lifestyle changes

There is some evidence that increased fluid intake, in those who tend to get recurrent UTIs, reduces the risk of getting another UTI. For this to work, you have to drink at least one litre (two pints) per day. A small number of people might have a medical problem where they have been advised to restrict the amount of fluid that they drink in a day (e.g. heart failure and some kidney problems) - they should keep to the advice given by their doctor about fluid intake. There is no evidence that increasing fluid intake once you have a UTI helps it to go away more quickly.

Cranberry juice

There is some evidence to support cranberry products in to reduce the risk of future UTIs in women with recurrent UTIs, in children and in those who are more likely to have a UTI after a medical procedure. There isn't currently any evidence for use in those who are elderly, pregnancy, or have problems fully emptying their bladder.

D-mannose

D-mannose is a naturally occurring simple sugar that can be bought in health food shops. Research has shown that taking it daily helps prevent recurrent urine infections.

Many guidelines from around the world (including the National Institute for Health and Care Excellence (NICE) now recommend trying this strategy. D-mannose is passed out in your urine and stops bacteria sticking to the wall of your bladder which prevents infection.

Most people can take D-mannose without any side-effects but a small number of people (8 out of 100 who had taken it for at least 6 months) may find it gives them diarrhoea. If you do use D-mannose, be aware that the recommendation in the NICE guidance is based on 200ml of the 1% solution taken once daily in the evening, and that you should take account of its sugar content as part of your daily sugar intake.

Probiotics

Researchers are also studying the effects of probiotics (such as lactobacillus) on preventing cystitis. For postmenopausal women who have a less acid environment in the vagina, the idea is that these bacteria would restore the acidity and help prevent infection. But currently there isn't enough evidence to know if they are really useful.

What is the treatment for recurrent cystitis?

Antibiotics

Antibiotic medication is usually needed for the treatment of bouts of recurrent cystitis. If your symptoms are mild then it is usually advisable to wait for the results of your urine test to see which antibiotics you should be treated with. However, if your symptoms are bad or worsening then you should start antibiotics without any delay.

Some women are prescribed a supply of antibiotics to keep on standby. You can then treat a bout of cystitis as soon as symptoms begin without having to wait to see a doctor. A three-day course of antibiotics is the usual treatment for each bout of cystitis. Antibiotics commonly used include trimethoprim and nitrofurantoin.

Ideally, you should do a midstream specimen of urine (MSU) to send to the laboratory before starting to take any antibiotics. You should see a doctor if your symptoms do not go within a few days, or if they worsen.

Preventative measures

This means taking a low dose of an antibiotic regularly. One dose each night will usually reduce the number of bouts of cystitis. A six-month course of antibiotics is usually given.

You may still have bouts of cystitis if you take antibiotics regularly but the episodes should be much less often. If a bout does occur, it is usually caused by a germ (bacterium) which is resistant to the antibiotic you are taking regularly.

A urine sample is needed to check on which bacterium is causing any bout of cystitis. You may then need a temporary change to a different antibiotic.

Vaginal oestrogen

If you have gone through the menopause and had your last natural period (postmenopausal), your hormone levels will have dropped. As explained earlier, this leads to changes in the vagina and the urethra that can increase the chances of getting recurrent cystitis, as well as other problems like dryness and painful sex. You can read more about this in the separate leaflet called Vaginal dryness (Atrophic vaginitis).

Vaginal oestrogen has been shown to reduce the number of bouts of cystitis in postmenopausal women who get recurrent cystitis and has a low risk profile compared to antibiotics.

It is usually taken as an estradiol tablet that you insert into your vagina at night twice a week or as a ring that releases estradiol continuously and stays in the vagina for three months at a time. It can help even in postmenopausal women who don't have any of the other vaginal symptoms.

Is recurrent cystitis related to having sex?

Some women find that they are prone to cystitis within a day or so after having sex. This may be partly due to the movements during sex which may push germs (bacteria) up into the bladder.

There may also be slight damage to the urine outlet tube (urethra). This slight damage encourages bacteria to thrive. This is more likely if the vagina is dry during sex. The normal mucus in and around the vagina may also be upset if spermicides or diaphragm contraceptives are used.

The following may reduce the chance of cystitis developing after sex:

- After having sex, go to the toilet to empty your bladder.
- If your vagina is dry, use a lubricating jelly during sex.
- Taking a single dose of antibiotic within two hours after having sex has been proven to reduce the chance of you getting cystitis if you are prone to getting it after sex.
- Do not use spermicides and/or a diaphragm for contraception. See your doctor or practice nurse for advice on other forms of contraception.

Further reading

- Urinary tract infection (lower) - women; NICE CKS, February 2025 (UK access only)

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