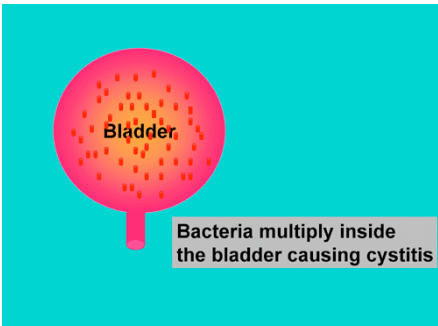
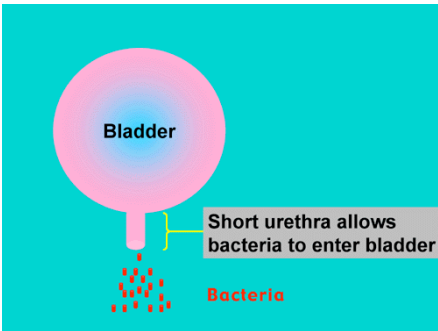
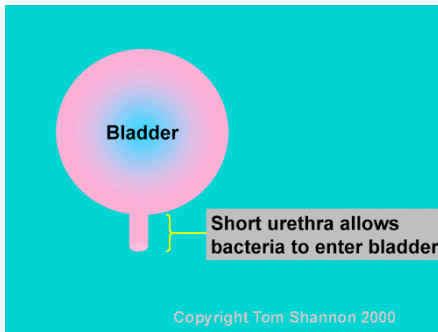


Prevention of Urinary Tract Infections

Mr Tom Shannon - Urologist 9389 7696

What causes urinary tract infections (UTI's) and cystitis?

The vast majority of UTI's are caused by bacteria from the bowels. Bacteria enter the bladder through the short urethra and if allowed to multiply, cause infection.



Most infections are short lived and respond quickly to antibiotics. These infections are known as simple cystitis. Simple cystitis is a common condition, occurring up to once or twice a year in otherwise normal women.

In some women UTI's become a recurring problem, leading to countless courses of antibiotics. This newsletter offers information and advice for women with this difficult problem.

Why Me??

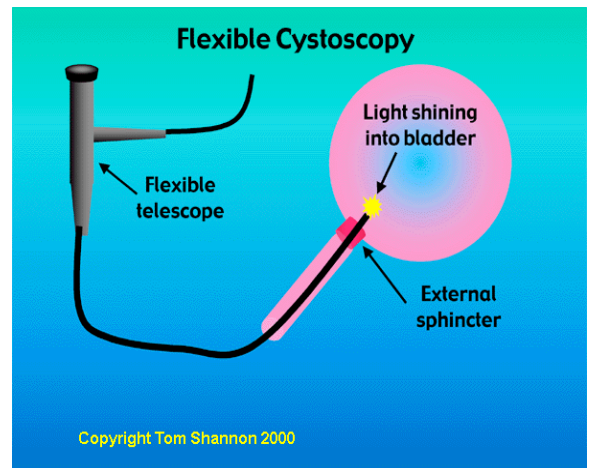
As you are probably aware some women have a greater risk of UTI's than others. There can be many reasons for this. For the sake of simplicity there are two main causes;

- Anatomical / structural problems
- Bacterial virulence / host immunity

When you see your urologist he will initially focus attention on the first problem. It is essential that we

make sure the kidneys and bladder are structurally normal and work well. After asking you some questions about your problem he is likely to order some tests. Typically these are;

- Mid stream urine culture
- Kidney function blood test
- Kidney Ultrasound
- Flexible Cystoscopy

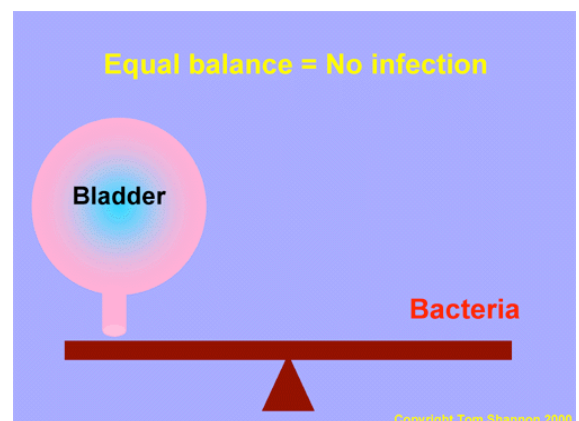


Most women have normal investigations. If something is found to be abnormal this will be discussed with you and treatment commenced.

Why do you get recurrent infections if there is no underlying abnormality?

There will always be bacteria around, and they will always gain access to the bladder. Infections only occur when the bacterial numbers rise to high levels. Every person has a different level. For most this is very high and infections are rare. For others this is low and infections become frequent.

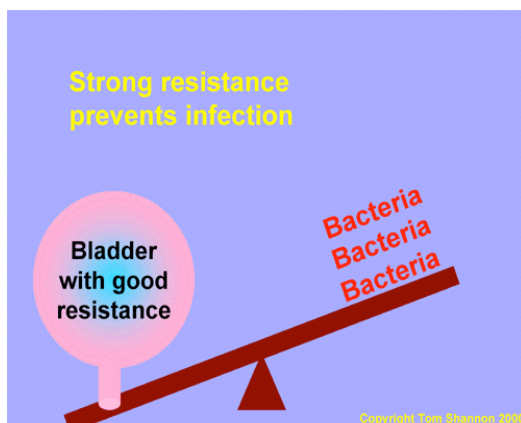
What prevention strategies aim to do is to lower the risk to you as an individual. There will always be a balance between the ability of the bacteria to cause infection, (virulence or aggressiveness), and your ability to repel it, (immunity).



There may be some bacteria that will be able to cause infection in anyone.



Most are not like this and improving your immunity will help to repel most bacteria.



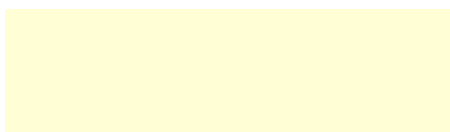
So what should I do?

There are many things you can do. Strategies either work by decreasing the number of bacteria in the bladder or by boosting immunity to clear those that make it in.

Decrease bacterial numbers

Drink enough water

Passing urine is the natural defense to bacterial multiplication. If the bacteria are flushed out frequently they will never reach the number required to cause cystitis. You do not need to go crazy with water. You don't need to drink eight glasses a day, every day although this is a reasonable guide. The best way to know if you are drinking enough is to look at the colour of your urine. Aim for the colour below;



and avoid the following colour below by increasing the

amount you drink.



Empty your bladder after sex

During sex bacteria can enter the bladder. In some women infection will result if the bacteria are left overnight. Flushing the bacteria out can reduce your risk. Your urologist may give you some antibiotics to take after sex. This can be helpful when other methods fail.

Avoid constipation

When you are constipated the number of bacteria deposited around the area between the anus and vagina increases, probably because dry hard stools don't wipe away cleanly. About two thirds of the population will develop diverticular disease of the bowel because of longstanding constipation, so even if you are regular, you may be better off by increasing your fibre intake. Metamucil or Fybogel are over the counter preparations available in supermarkets and pharmacies. They contain plant fibre from Psyllium husks and will not damage the bowel like other treatments. Just follow the instructions on the packs.

Cranberry juice or tablets

Cranberries contain an acid which enters the urine. This acid lowers the pH of the urine. Bacteria can only grow within a certain pH range. When you get an infection the body will try to acidify the urine itself to stop the bacteria multiplying. This is why it burns to pass water. There are many studies which show that cranberry juice works. Many people don't like the taste of the juice and discontinue using it. These juices may be made more palatable by adding sugar, so read the label or choose a diet version. Cranberry tablets or capsules are an effective alternative.

Avoid bladder powders

Most of these over the counter preparations make you feel better by taking the sting out of the water. They do this by neutralizing the acid in the urine. This allows the bacteria to grow more easily. It is probably safe to use them if you already have some antibiotics. The important thing is not to see them as an alternative to antibiotics.

Avoid spermicides

Spermicides used with diaphragms or condoms can alter the bacterial types in the vagina. By killing off friendly bacteria, pathogenic bacteria are allowed to grow and cause infection. Many condoms have spermicide in their lubricant. You should use ones without to avoid this effect.

Prophylactic antibiotics

Sometimes antibiotics are used to decrease bacterial numbers and prevent, rather than treat infection. Different antibiotics do different things, and in different ways. Nitrofurantoin (Macrochantin), is often referred to as a urinary antiseptic when used in low doses. It is excreted in the urine and can significantly reduce the risk of infection. It has a very broad activity against many bacteria which makes it unnecessary to know which bacteria are present. There is also a very low rate of resistance when used over long periods.

Improve your resistance to infection

Treat any infections quickly and protect your bladder. If you develop an infection it is essential that it is treated early. With time the bacteria release toxins which damage the lining of the bladder, the mucosa. The mucosa is an essential barrier to the bacteria that normally enter the bladder. Once this is damaged the bacteria can gain access to the deeper layers and cause severe cystitis, which can cause irreversible scarring. There is often blood in the urine when this happens.

One reason why otherwise healthy women get repeated infections is because the natural defenses of the mucosa have been destroyed by a previous infection. Typically infections may occur for a month or two, respond well to antibiotics each time, and return as soon as the antibiotics are ceased. In these cases a prolonged course of antibiotics, of a month or so, will allow the bladder to heal so that simple measures will work next time. It may also help in removing bacteria deep in the wall of the bladder. If you are known to be prone to infections it may be wise to have a store of antibiotics at home so that treatment can begin before symptoms are severe. Talk to your doctor about this.

Have a healthy vagina

If there is significant vaginal dryness you are at risk of UTI's. Oestrogens reduce the risk of infection by promoting a friendly environment for the good bacteria, which helps to stop the bad bacteria growing. Oestrogens increase the thickness of the lining cells around the entrance to the bladder. Oestrogens also help promote lubrication during intercourse. The most common reason for a low oestrogen is menopause, and if you suspect this please see your local doctor. Certainly many women begin to develop recurrent infections around the time of menopause, and hormone replacement has been shown to be an effective treatment. Oestrogens can be replaced to either the whole body or just the vagina. Oestrogen levels also vary in the normal woman during the menstrual cycle, and you may have noticed that you are more likely to develop an infection just before or just after a period. Extra care at these times may be helpful.

The oral contraceptive pill can reduce the risk by stabilizing hormone levels during the cycle. There are many different preparations and not all are helpful in this respect. Some may make the problem worse. Check with your local doctor.

Boost your immune system

Everyone knows we're more likely to get the flu when we are run down. The same applies to cystitis. Below are some positive things you can do;

- **Improve your diet** - fruit and vegetables are rich in anti-oxidants, vitamins and fibre. It's what we are meant to eat to be healthy. Two fruit and five vegetable serves a day have been shown to decrease the risk of cancer and heart disease.
- **Get some exercise** - moderate exercise sustained for 30 mins at a time, three times a week. Find something you enjoy and don't give up.
- **Lose weight** - if you can manage the two above you'll have this one sorted out already. Your body mass index BMI is an independent predictor of cancer and heart disease. Being overweight is the commonest risk factor for disease in western society.
- **Don't smoke** - if you doubt the importance of this then you are choosing to ignore the biggest body of evidence there is. It is addictive, and difficult to give up, but worth it. See your local doctor for help or follow the links below.

Alternative medicine

There are many and varied alternative remedies on the market and I do not profess to be an expert in this area. All I suggest is that you subject these treatments to the same level of suspicion as any other medicine you may take. Most of them are labeled as foods to avoid any drug regulation and then marketed as treatments for common ailments. Please use your own judgment; after all you are being asked to pay for these treatments. In the USA the amount spent on 'alternative medicines' is more than spent on regulated drugs which must be proven before sale. Look up cystitis on the internet and you will soon see that everyone is actually trying to sell you something and not inform or help you. Buyer beware.

High dose vitamin supplements have been shown to cause harm in some studies. The effectiveness of vitamins is greater if they are taken in combinations found naturally in foods.

Where can I get more information?

Visit the web site at
www.hollywoodurology.com
 for more detail and links to support groups and various information site.

All information provided is aimed to supplement and not replace the advice given from your treating doctor.
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 Phone - 9389 7696