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GOODBYE,

CYSTITIS!

YOUR GUIDE TO AVOIDING  
RECURRENT URINARY TRACT  
INFECTIONS NATURALLY  
IN 10 STEPS

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# Introduction

Are you struggling with urinary tract infections? Do you seem to catch them quickly and often? Are you looking for a way out?

I've been there, I can relate...

I used to struggle with chronic urinary tract infections but I managed to get rid of them (and kept them off) – naturally!

If I can do it, so can you...

This ebook is designed as a guide to strategies that have helped me personally and other strategies that I have discovered in the course of my research.

Different things will work differently for different people – don't worry if you can't follow all of the points religiously. Just try your best to incorporate the steps into your life that are most relevant to you and your current situation.

Good luck, you can beat cystitis!

*Disclaimer: This guide is designed as a source of informative and helpful material only and does not constitute medical advice. Always consult your healthcare professional first.*

# What is cystitis?

Cystitis is the medical term for a condition also known as 'urinary tract infection' (UTI) or simply bladder infection. Cystitis is a very common problem, especially amongst women: it is estimated that over half the women in Britain will suffer from it at some point in their lifetime. Cystitis is one of the most common causes for attending medical consultations and its prevalence is thought to increase with age. An estimated 10-15% of women aged over 60 years have frequent bouts of cystitis. Men and children can also be affected by cystitis but this is less common.

The main symptoms of cystitis are:

- Feeling of discomfort when urine is passed and a stinging/burning pain in the urethra ('dysuria')
- Frequency of urination and an urgent need to go, often only passing small amounts
- Feeling of urgency even when the bladder is empty
- Dark or cloudy urine, strong smelling urine

Other symptoms can include:

- Backache/pain over the bladder
- Fever or raised temperature, chills
- Blood in urine
- Fatigue
- Nausea
- Feeling unwell
- Moodiness
- Confusion (in old people)

These symptoms can present differently in individuals. A bout of cystitis often starts with a 'shivery twinge' just after passing urine. If not immediately taken care of, these symptoms may progress to a more intense burning pain.

We usually refer to a bacterial infection of the bladder when talking about cystitis.

## Bacterial Cystitis

Cystitis is usually a bacterial infection of bladder. Bacteria usually enter through the urethra (tube from the bladder to the outside) and ascend into the bladder where they adhere to the bladder wall.

The most common pathogens implicated in cystitis are E. Coli (*Escherichia coli*), *Streptococcus faecalis*, *Enterobacteriaceae*, *Staphylococcus saprophyticus* and *Enterococcus*. Other less common strains could include: *Klebsiella*, *Proteus* and *Pseudomonas*.

These bacteria are commonly found in the gut microbiota (bacterial flora of the large intestine) and therefore are often present on the skin around the anus. It is believed that our own bacteria are usually the cause of cystitis.

These bacteria can secrete an enzyme called urease, which splits the urea (a waste material from protein metabolism) in urine, resulting in the production of ammonium salts. These are responsible for the burning sensation and the strong smell of urine. The bladder will increase frequency in order to flush the bacteria out. Moreover, bacteria weaken the protective lining of the bladder so that urine can cross over to the cells and capillaries that make up the bladder wall. This stimulates

receptors that make you feel increased urgency to urinate. Over-stimulation also increases the sensation of frequency.

It is believed that women suffer more often from cystitis because of the close vicinity of the urethra and anus and also the short length of the urethra compared to men.

Cystitis can be debilitating but is generally not considered to be dangerous. However, if left untreated bacteria may travel up the ureters into the kidneys, which may lead to infection and inflammation of the kidneys (pyelonephritis). This could potentially be dangerous and should always be treated.

The presenting symptoms for kidney infection are usually:

- Backache (middle back)
- Fevers
- Chills

How is cystitis diagnosed?

A specimen of mid-stream urine is usually taken into a sterile container and a first simple positive/negative test can be taken with appropriate test strips at home or at the GPs. If positive, the sample is sent to a lab to be cultured. The result will indicate what type of bacterium is present and how strong the infection is.

# What to do when you have an infection

## 1. Testing

When cystitis flares up, it is important to get your urine tested for bacteria as this helps you to determine a) if it is really bacterial cystitis you're suffering from and b) what type of bacteria are present.

This knowledge will help you to decide on a suitable course of action.

Before you do anything else (like drinking water) you need to take a mid-stream urine sample (MSU) into a sterile container. You can buy sterile containers at the pharmacy or sterilize one yourself with boiling water.

- First, clean your urethral and vaginal openings with a wet cotton-ball. Your goal is to catch a bit of uncontaminated urine that comes directly from your bladder.
- Urinate for a bit, then place the container under the stream to catch the 'mid-stream' urine.
- Label the container with your name, address, date and time and your doctor's name.
- If you have urine testing strips (Multistix) at hand, you can quickly check if an infection is present. You could also get your doctor to do that for you. This does not show you which type of bacteria are present, so a sample should still be cultured at the lab.
- If your GP practice is open, you can take the sample straight in to be sent to the lab. If it is closed, refrigerate your sample and take it in asap.
- Wait for your results (it shouldn't take too long).

## 2. Alkalisising and flushing

The first steps in managing cystitis should be to alkalize the urine as the bacteria's preferred environment is acid and then to flush them out of the bladder.

- Drink half a pint of water mixed with a teaspoon of bicarbonate of soda. This helps to alkalize the urine.
- Drink half a pint of water every 20 minutes for 3 hours.
- After that, drink another half pint every hour or so until you feel that symptoms start to abate.
- If you feel dizzy you may need to top up your electrolytes (minerals)—too much water can dilute electrolytes leading to adverse effects. You could consume some good quality sea salt or pink Himalayan salt (either in water or on food).
- You could try a natural diuretic such as dandelion tea to help the bladder flush even more.
- If you're in pain you could try taking a curcumin supplement. Turmeric (curcumin) has been shown to be as effective as the pain-killer Ibuprofen in some cases and it is said to be a potent anti-inflammatory.



### 3. Natural remedies

90% of bacterial cystitis are caused by E. coli bacteria. The other 10% are usually caused by other strains. If you've followed the previous steps, you should now know which bacterial strain you're dealing with and you can tailor your choice of remedies accordingly.

- **Cranberry:** has long been associated with the prevention of cystitis. The anti-oxidant compounds found in cranberry called proanthocyanidins (PACs) have been found to have an inhibitory effect on the adhesion of E. coli on the bladder and urethral lining. Some studies have shown that cranberry is not as effective as previously thought, but this may be due to a lack of standardized extracts. Look for a high potency, unsweetened form of cranberry that contains PACs. Cranberry may be more effective when taken together with the bee-glue propolis. Cranberry may be useful if an E. coli infection is present. As cranberry is acidic, it may worsen the symptoms of burning. If this occurs, stop the ingestion.
- **Garlic:** has been shown to have anti-bacterial activity against some strains of E. coli. You may want to incorporate garlic into your diet or take a good-quality allicin (the active compound in garlic) supplement. It may have anti-bacterial action against other strains too.
- **Uva Ursi:** has been found to have antiseptic and antibacterial activity due to its arbutin content. It seems to be especially active against E. coli and also has diuretic properties that help flush out the bladder.
- **Berberine:** has been found to have antimicrobial activity against many different microbial strains.
- **Lactoferrin:** is naturally found in breast-milk and is an immunoregulatory protein that has antimicrobial activity. It has been found to reduce E. coli infections in mice and may also work against other bacterial strains.
- **D-Mannose:** is a natural sugar that has been found to attach itself to E. coli bacteria and as such prevent their adhesion to the bladder lining. The bacteria can now be flushed out in the urine. D-Mannose may be helpful for E. coli infections but not necessarily for any other strains.
- **Biofilm-disruptors:** If you suffer from recurrent bouts of cystitis, bacteria may have developed biofilms on the bladder lining, which protect them from antibiotics. In that case, supplementation with proteolytic (protein-splitting) enzymes (such as nattokinase or bromelain) or specialist biofilm-disruptors (such as InterFase Plus) may be of help when combined with an antimicrobial agent (*NB. Some biofilm-disruptors and especially proteolytic enzymes are contra-indicated for people with bleeding disorders or people taking drugs that influence blood clotting. Always make sure to check with your doctor before taking any supplements*).
- **Lauricidin:** is an antimicrobial that is specific against gram-positive pathogenic bacteria such as Streptococcus, Staphylococcus, Corynebacterium, Listeria, Bacillus, and Clostridium and as such may be helpful if the infection is caused by bacterial strains other than E. coli.
- **Botanicals:** the following botanicals may be helpful when consumed as tea – Echinacea, calendula and yarrow. Some places sell teas specifically formulated for the urinary tract.

#### 4. What to do if the infection hasn't cleared

If you have followed all these steps and the infection has not cleared after a few days and/or has gotten worse, you should see a doctor. If the infection has spread to your kidneys (refer to the first chapter for symptoms) seek medical help asap – kidney infections can be dangerous if left untreated. If you've had your urine analysed your doctor should be able to choose an appropriate antibiotic for your type of bacterial strain.

- Try to find a doctor who is willing to treat you with a large, single dose of antibiotics rather than a 7-day course. A large, single dose antibiotic should quickly reach the bladder where it is kept in place and be able to knock out the infection quickly. This should reduce side-effects.
- If you have to take a longer course of antibiotics make sure the doctor matches the drug to the bacterial strain.
- Take a good quality probiotic for the duration of and after antibiotic treatment to reduce its impact on the gut flora (take the probiotic away from the antibiotic, otherwise the antibiotic may kill the beneficial bacteria).



# How to prevent further infections

## 1. Hygiene

Most urinary tract infections are caused by our own bacteria. These bacteria live in the gut and are able to enter the bladder through the urethra via the anus and the perineum (space between anus and vagina). This is normal, but problems arise if our body can't get rid of or deal with these bacteria in the bladder. In this case, personal hygiene can prevent the bacteria from entering the bladder in the first place.

- Always wipe front to back.
- Wash the anus and perineum after each bowel movement and before intercourse. Use warm water and a mild, natural soap (such as castile soap). Make sure to rinse front to back as well. This is easily done with 'bottle-washing': fill a half litre bottle with warm water, wet and soap your anal area and sit on the toilet with your back slouched forwards. Pour the water downwards from the vagina and clean all areas front to back with your other (clean) hand. You could use a shower or bidet as well but always ensure the water flows front to back.
- Bacteria thrive in a warm and damp environment. This is easily created by synthetic clothing and sitting. Try to wear cotton underwear and try to sit less or in a position that allows your crotch to 'breathe'. Wear more skirts/dresses and sleep without underwear.
- Avoid irritation of the crotch area. Contributing factors can be clothing, shaving (consider other ways of hair removal) and intercourse (use a natural lubricant).

## 2. Hydration

Proper hydration is important to flush out bacteria from the bladder.

- It is recommended to have a total fluid intake of 1.2-2 litres daily.
- Drinking too much is as bad as drinking too little.
- Listen to your body and adjust your fluid intake to the weather and your activity levels.
- Choose filtered water and herbal teas over coffee and tea and avoid fruit juices and pop.

## 3. Preventative supplements

- **Probiotics:** The normal bacterial flora has been recognised as an important defence to infection. There seems to be a correlation between the loss of normal genital flora, which is dominated by Lactobacilli, and an increased susceptibility to urinary tract infections. Therefore, supporting the genital flora with probiotics may help to prevent urinary tract infections. Lactobacilli are the main strains to look for, particularly *L. rhamnosus* and *L. crispatus*. Special formulations for women (such as FemDophilus) and probiotic suppositories are available.

If you are prone to *E. coli* infections:

- **Cranberry:** The anti-oxidant compounds found in cranberry called proanthocyanidins (PACs) have been found to have an inhibitory effect on the adhesion of *E. coli* on the bladder and

urethral lining. This may prevent E. coli from causing an infection. Look for a high potency, unsweetened form of cranberry that contains PACs.

- **D-Mannose:** is a natural sugar that has been found to attach itself to E. coli bacteria and as such prevent their adhesion to the bladder lining. This may prevent E. coli from causing an infection.

To boost the immune system against future infection:

- **Vitamin C:** is one of the most powerful nutrients for the immune system as it stimulates certain immune cells and has antibacterial properties. Its action is enhanced by **bioflavonoids**.
- **Green tea:** the catechins in green tea are potent anti-oxidants and have antibacterial properties.
- **Echinacea tea:** Echinacea has immune-stimulating and antimicrobial properties and may therefore be useful for preventing infections.
- **Elder:** Elderberries and flowers both have immune-supporting properties.
- **Garlic:** can boost the immune system and has antimicrobial properties.
- **Ginger:** is anti-inflammatory and can support immune-function.
- **Turmeric:** has potent anti-oxidant and anti-inflammatory activity.

#### 4. Diet and lifestyle

Diet and lifestyle are the foundation for good health. Without the right building blocks our immune systems can't function efficiently to fight off infections –critical for staying cystitis free!

Ancestral diets were high in nutrients and low in toxins and empty calories. Therefore I'd recommend a paleo approach in terms of diet. Think about which foods were available to our ancestors.

- Focus on real foods and ditch processed white flour products, refined sugars, hydrogenated vegetable oils and sugary pop. Sugar especially can suppress the immune system for 2 hours after ingesting, making it harder to keep off infections. White flour acts like sugar in the body.
- Eat lots of fresh vegetables and fruits. They are high in antioxidants, vitamins and minerals that can support immune function. They also provide fibre, which can help to promote a healthy bacterial flora.
- Eat grass fed or free range meats and eggs and wild-caught fish. Animal foods provide many essential minerals, vitamins and fatty acids that help support the immune system and a healthy bladder lining. Bone broth is particularly great for the bladder lining.
- Focus on healthy fats like omega 3s from oily fish, olive oil, avocado, butter, ghee and coconut oil.
- Reduce stress or learn how to deal with stress. Stress can inhibit immunity through its different effects on body functions. Try tried-and-tested stress-reduction techniques like deep breathing, meditation, yoga, gratitude, tapping or a mindfulness practice.
- Consider your method of birth control. Certain methods of birth control may increase the likelihood of catching an infection.

## 5. Voiding properly

One of the prevailing theories as to why some women develop cystitis and others don't is that they have a shorter perineum (space between the anus and vagina) allowing bacteria to travel to the urethra easily. However, nature seldom works in this way as being prone to cystitis would be an evolutionary disadvantage. In this case, our environment is often to blame.

- The problem is not so much about bacteria getting into the bladder, it is about bacteria not getting out of the bladder and a sub-optimal immune response.
- In fact, we have a natural cleansing mechanism. Urine is mainly sterile and has the ability to cleanse the bladder, bladder neck, urethra, the vaginal area and the perineum.
- Our natural way of passing urine is to squat. When we squat, the urogenital area automatically aligns so that the urine flows from the urethra over the vagina and then the perineum, cleansing them on the way. Squatting also allows urine to flow stronger and easier and facilitates the complete emptying of the bladder.
- The best way to squat is to get a footstool for your toilet (e.g. 'Squatty Potty')

## 6. Spine alignment

Bladder problems can actually be related to lower-back problems. If you have back-pain, often wear heels, sit a lot or regularly lift heavy things you may want to get your spine checked out by a professional chiropractor.

A large group of nerves that passes on messages to the bladder originate between two vertebrae in the lower back.

If there is compression or instability of the disks between which the nerves originate, the nerves can get damaged and this in turn may impair bladder function.

# Final Words

Thank you for reading – I hope you've found the above information useful.

A lot of these strategies have helped me to overcome cystitis but it was a struggle and took a long time.

I hope that by implementing all (or at least) some of these strategies you will be able to overcome cystitis quickly and effectively.

I wish you all the best for your journey!

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