

Urethritis, non-gonococcal

Urethritis is the inflammation of the urethra - the tube that carries urine from the bladder out of the body. It is usually caused by an infection.

The term non-gonococcal urethritis (NGU) is used when the condition is not caused by gonorrhoea, a sexually transmitted infection (STI).

Sometimes, NGU is referred to as non-specific urethritis (NSU) when no cause can be found.

In women, NGU rarely has any symptoms. Symptoms in men include:

a painful or burning sensation when urinating

the tip of the penis feeling irritated and sore

a white or cloudy discharge from the tip of the penis

Read more about the symptoms of non-gonococcal urethritis.

If you think you have NGU, you should visit your local genitourinary medicine (GUM) clinic or sexual health clinic. These clinics have access to specialist diagnostic equipment that is probably not readily available to your DOCTOR.

You can use the 'Find services' directory to find sexual health services in your area. Sexual health services are free and available to everyone regardless of sex, age, ethnic origin and sexual orientation.

Why does non-gonococcal urethritis happen?

NGU can have a number of possible causes, but it is estimated that the STI chlamydia is responsible for nearly half of all male cases.

There are many cases where no infection is found. However, even if no cause is determined, it is still suspected that an infection is present. This is also the case if inflammation is caused by an object, such as a catheter, in the urethra, or the use of creams and soaps around the genitals.

Who is affected?

Urethritis is one of the most common reasons for men to visit their local genitourinary medicine (GUM) clinic or sexual health clinic.

NGU is usually diagnosed after urine and swab tests.

Treating non-gonococcal urethritis

Antibiotics are usually prescribed to treat NGU. You may even be given them before you get your test results.

They are also used in cases where NGU is thought to have been caused by an object, cream or soap.

In most cases, only a short course of treatment is needed and symptoms clear up after about two weeks.

The most common antibiotics used are azithromycin and doxycycline (Vibramycin-D).

It is important that past and current sexual partners are also treated, to prevent any infection spreading to others.

After treatment has been completed, and symptoms have disappeared, it should be safe to start having sex again.

Preventing non-gonococcal urethritis

As NGU is most often caused by an STI, practising safe sex is the best way to reduce the chances of it developing.

Safe sex involves using barrier contraception, such as condoms, and having regular checks at sexual health clinics or GUMs.

Complications

NGU can have some complications. For example, the condition can keep coming back in some cases.

Other complications include:

Reiter's syndrome, when the immune system starts attacking healthy tissue, which can lead to joint pain and conjunctivitis

epididymo-orchitis, inflammation of the testicles

Women often have no symptoms of NGU, but if it is caused by chlamydia it can lead to pelvic inflammatory disease (PID) if it is not treated. Repeated episodes of PID are associated with an increased risk of infertility.

Symptoms of non-gonococcal urethritis

Non-gonococcal urethritis (NGU) can cause different symptoms in men and women. In some cases, NGU does not cause any symptoms at all.

Symptoms of NGU in men

The symptoms of NGU in men can include:

a white or cloudy discharge from the tip of the penis

a burning or painful sensation when you urinate

the tip of your penis feeling irritated and sore

a frequent need to urinate

Depending on the cause of NGU, symptoms may begin a few weeks after an infection or several months later.

If NGU has a non-infectious cause, symptoms may begin after a couple of days. Symptoms that start a day or two after sex are usually not caused by an STI, but testing for STIs is still recommended.

If a current or recent sexual partner informs you that you may have been exposed to a sexually transmitted infection (STI) that can cause NGU, but you don't have any symptoms, don't assume that you do not have NGU. In these circumstances, it is always recommended that you visit your local genitourinary medicine (GUM) clinic or sexual health clinic for testing.

You should still seek treatment if the symptoms of NGU disappear on their own, as the risk of passing on the infection remains.

Symptoms of NGU in women

NGU tends to cause no noticeable symptoms in women unless the infection spreads to other parts of the female reproductive system, such as the womb or fallopian tubes (the tubes that connect the ovaries to the womb).

If the infection does spread, a woman may develop pelvic inflammatory disease (PID). PID is a serious health condition that can cause persistent pain. Repeated episodes of PID are associated with an increased risk of infertility.

Symptoms of PID include:

pain around the pelvis or lower part of your tummy

discomfort or pain during sexual intercourse that is felt deep inside the pelvis

bleeding between periods and after sex

unusual vaginal discharge

a high temperature (fever) of 38°C (100.4°F) or above

Causes of non-gonococcal urethritis

Sexually transmitted infections (STIs)

Urethritis can be caused by a sexually transmitted infection (STI). It is therefore more common among people who are at risk of STIs. This includes people who:
are sexually active

have had unprotected sex

have recently had a new sexual partner

Non-gonococcal urethritis (NGU) is most commonly caused by an infection, although there are many cases when no cause is found.

Although sexually transmitted infections (STIs) can cause NGU, it does not result from a gonorrhoea infection.

Chlamydia

The STI chlamydia is thought responsible for almost half of all cases of NGU in men. In women, about 4 in 10 cases of NGU may be caused by chlamydia.

Chlamydia is caused by *Chlamydia trachomatis* bacteria and is spread during unprotected sex, including anal and oral sex.

Other infections

A number of other infections can cause NGU.

This includes other bacteria that usually live harmlessly in the throat, mouth or rectum. They can cause NGU if they manage to find their way into the urethra, which is the tube that carries urine from the bladder to the outside of the body. This can often occur during oral or anal sex.

Possible infections that can cause NGU include:

Trichomonas vaginalis, which is an STI caused by a tiny parasite

other bacteria, such as *Mycoplasma*

a urinary tract infection

the herpes simplex virus, which can also cause cold sores and genital herpes

an adenovirus, which usually causes a sore throat or an eye infection

Non-infectious causes

It is possible for NGU to have a non-infectious cause. This is when something else leads to the urethra becoming inflamed. Non-infectious causes of NGU include:

irritation from a product used in the genital area, such as soap, deodorant or spermicide

damage to the urethra caused by vigorous sex or masturbation

damage to the urethra caused by inserting an object into it, such as a catheter (thin, plastic tube) which is inserted to allow urine to drain from the bladder, for example during an operation in hospital

Diagnosing non-gonococcal urethritis

Non-gonococcal urethritis (NGU) is usually diagnosed after tests have been carried out at a specialist clinic.

If you think you have NGU, you should visit your local genitourinary medicine (GUM) clinic or sexual health clinic. These clinics have access to specialist diagnostic equipment that is probably not readily available to your DOCTOR.

You can use the 'Find services' directory to find sexual health services in your area. Sexual health services are free and available to everyone regardless of sex, age, ethnic origin and sexual orientation.

Tests

There are two tests used to diagnose NGU. Either test can be used, although both may be carried out to ensure the diagnosis is correct.

It is recommended you are also tested for gonorrhoea and chlamydia at the same time as NGU. These are two sexually transmitted infections (STIs) that often cause urethritis.

You may also be offered tests for other STIs, including HIV. It is up to you whether to have these or not, but a test for all infections is recommended. You can discuss this with healthcare professionals at the clinic if you wish.

Swab test

A swab test involves taking a small sample of fluid from your urethra, which is the tube that carries urine from the bladder to the outside of the body. The sample can then be examined under a microscope to look for evidence of inflammation or bacteria known to cause NGU.

The sample is taken using a swab, which is like a small cotton bud with a plastic loop at the end. The swab is not painful but can feel a little uncomfortable for a few seconds.

Urine test

You will be asked to provide a urine sample so that this can be tested for bacteria known to cause NGU, such as chlamydia.

You will be asked not to urinate for around two hours before providing a urine sample, because this can help improve the reliability of the test results.

Results

Clinics that have microscope facilities will be able to give you some results the same day. Other clinics may need to send the samples to a laboratory for testing, in which case the test results may not be available for a week or two.

Healthcare professionals at the clinic will tell you how and when you will receive your test results and will arrange your treatment.

Treating non-gonococcal urethritis

Non-gonococcal urethritis (NGU) is usually treated with a short course of antibiotics to kill the bacteria that caused the infection.

The healthcare professionals at the genitourinary medicine (GUM) clinic or sexual health clinic will arrange your treatment.

If your urethritis is caused by gonorrhoea, this may be treated differently.

Antibiotics

Treatment with antibiotics may be started before you receive your test results (read about diagnosing NGU for information about these tests).

If your test results do not identify an infection, or your NGU is related to inflammation caused by an object, cream or soap, antibiotics are also often used. This is because it is still likely an infection is responsible for the condition.

Most people with NGU are prescribed antibiotic tablets or capsules. This may be:

azithromycin, which is taken just once as a single dose

doxycycline, which is taken twice a day for seven days

You will usually not need to return to the clinic as long as you have:

taken your treatment

made sure that any recent partners have been treated

not had any sex until a week after everyone has been treated

In some cases it may take two or three weeks for your symptoms to disappear completely.

You should not have sex, including vaginal, anal and oral sex, until:

you have finished your course of doxycycline, or it has been seven days since you took azithromycin

you have no symptoms

your partner or partners have also been treated

Side effects

Antibiotics may cause some side effects, such as:

feeling sick

vomiting

diarrhoea

Antibiotics used to treat NGU may interact with the combined contraceptive pill and the contraceptive patch. If you use these methods of contraception, your DOCTOR or nurse will be able to advise you about which additional contraception is suitable for this time.

NGU and sexually transmitted infections (STIs)

While not all cases of NGU are caused by a sexually transmitted infection (STI), it is possible to pass on NGU during sex. Therefore, you should treat all cases of NGU as an STI and ensure that all recent partners have been treated.

You also shouldn't have any kind of sex until you are certain the condition has cleared up.

NGU does not tend to cause any noticeable symptoms in women, but can still affect a woman's long-term health. The bacteria associated with NGU can trigger the development of more serious pelvic inflammatory disease (PID).

Therefore, you should always inform your current partner and any recent sexual partners if you are diagnosed with NGU. They will also need to be tested and treated for the condition.

Informing partners

It is important that your current sexual partner is tested and treated. Any sexual partners you have had since being exposed to the STI will also need to be informed, so they can also be tested and treated.

It is suggested you inform any person that you have had sex with in the last three months, but this time frame can vary. The healthcare professionals at the GUM clinic will be able to advise you.

Some people can feel angry, upset or embarrassed about discussing STIs with their current partner or previous partners. However, do not be afraid to discuss your concerns with the healthcare professionals at the GUM or sexual health clinic. They will be able to advise you further about who should be contacted and the best way to contact them.

With your permission, the clinic can arrange for a 'contact slip' to be given to your former partner or partners. The slip explains they may have been exposed to an STI and advises them to have a check-up. The slip does not have your name on it and your details will remain totally confidential.

Nobody can force you to tell any of your partners about your STI, but it is strongly recommended you do. Left untested and untreated, STIs such as chlamydia can have serious effects on a person's health, particularly for women.

Complications of untreated chlamydia include:

infection of the testicles in men

infection of the cervix (neck of the womb) in women

pelvic inflammatory disease (PID), which can increase the risk of infertility and ectopic pregnancies

Complications of non-gonococcal urethritis

Non-gonococcal urethritis (NGU) can have serious complications, although these are rare.

Persistent urethritis

The most common complication of NGU is persistent or recurrent urethritis. This is when you still have urethritis one to three months after being treated for NGU. This affects one or two men in every 10 who are treated for NGU, and can affect women too.

If you still have symptoms two weeks after starting a course of antibiotics, you should return to the genitourinary medicine (GUM) clinic or sexual health clinic.

Reiter's syndrome

Reiter's syndrome, also known as reactive arthritis, is an uncommon complication of NGU. It is estimated that Reiter's syndrome will affect less than 1 in 100 people with NGU.

Reiter's syndrome is caused by the body's natural defence system (immune system) attacking healthy tissue for an unknown reason, rather than the bacteria responsible for NGU.

This can cause:

joint pain

(conjunctivitis) inflammation of the eyes

recurring urethritis

Read more about Reiter's syndrome.

Epididymo-orchitis

Epididymo-orchitis is a possible complication of NGU in men. It is a combination of epididymitis and orchitis:

epididymitis is inflammation of the epididymis, which is a long coiled tube in the testicles that helps store and transport sperm

orchitis is inflammation of the testicles

Epididymo-orchitis affects fewer than 1 in 100 men with NGU.

Pelvic Inflammatory Disease

In women, pelvic inflammatory disease (PID) can be a result of NSU if left untreated. PID is a serious condition that can increase the risk of infertility and ectopic pregnancies.

Preventing non-gonococcal urethritis

As most cases of non-gonococcal urethritis (NGU) are caused by a sexually transmitted infection (STI), the best way to protect yourself is to practise safe sex.

Using a condom when you have sex, including vaginal, oral and anal sex, can help prevent a sexually transmitted infection (STI) spreading.

Safe sex

There are a number of steps you can take to ensure you are having safe sex, such as:

Keeping the number of your sexual partners to a minimum.

Using a barrier method of contraception, such as condoms, every time you have vaginal or anal sex.

If you have oral sex, covering the penis with a condom or the female genitals with a latex or plastic square (dam).

Avoid sharing sex toys. If you do share them, make sure you wash them or cover them with a new condom before anyone else uses them.

Read more about how to use condoms.

You and your partner(s) should have regular check-ups for STIs. If you are not in a stable relationship and are sexually active, you should have a check-up every year. You should have tests more often than this if you have unprotected sex with a new partner, or if you notice any symptoms that worry you.

Testing can be done at your DOCTOR surgery or at a genitourinary medicine (GUM) clinic or sexual health clinic.

Other causes

Not all cases of NGU are caused by an STI. It can also be the result of irritation caused by creams, lotions and objects.

To prevent NGU developing in this way, you should avoid putting anything into the urethra (the tube that carries urine from the bladder out of the body), and stop using creams that cause discomfort around your genitals.