

Patient information from the BMJ Group

Cellulitis and erysipelas

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Cellulitis and erysipelas

Cellulitis and erysipelas are infections that make a patch of your skin inflamed, red, and sore. You may also feel generally ill and have a temperature. Cellulitis and erysipelas can occasionally be serious, but they're usually easy to treat with antibiotics.

We've brought together the best research about cellulitis and erysipelas and weighed up the evidence about how to treat them. You can use our information to talk to your doctor and decide which treatments are best for you.

What are cellulitis and erysipelas?

Cellulitis and erysipelas occur when germs called **bacteria** infect your skin. This makes a patch of skin red and inflamed.

Cellulitis normally occurs on your legs or your arms. You might hear your condition called erysipelas rather than cellulitis if the **inflamed** patch of skin is on your face.

Your skin normally stops germs getting into your body and doing you harm. But they can get in and cause an infection if: ^[1]

- Your skin has a cut or scrape
- You've had a cut during surgery
- You have an open sore (ulcer).

Occasionally, cellulitis can start when there's no obvious wound on your skin. ^[1]

Cellulitis and erysipelas are similar. The main difference is that cellulitis affects a deep layer of your skin and the layer of fat just underneath it. Erysipelas affects your skin nearer the surface. But doctors can't always tell the two apart. ^[2] And they're both treated in the same way.

Here, we look at cellulitis that happens on the body - usually on the arms and legs. Cellulitis that happens near the eye is a more serious (but quite rare) condition called **periorbital cellulitis**. The symptoms include swelling, warmth, and pain around the eye, and fever. If you get these symptoms, get medical help straight away.

Cellulitis and erysipelas

Who's at risk of cellulitis and erysipelas?

Because the germs that cause cellulitis and erysipelas can get into your body through a cut or wound in your skin, you're more at risk if you have a wound that doesn't heal easily. You may be more at risk if you have: ^[3]

- Open sores (**ulcers**)
- Bed sores (pressure sores). You can get these if you've been bedridden for a long time (if you've had a **stroke** , for example)
- [Athlete's foot](#) . This is an infection in the skin on your feet (usually between your toes), which is caused by a fungus.

You are also more at risk if:

- You have recently had surgery
- You have **lymphoedema** (a swelling in your arm or leg). You get lymphoedema if your body's **lymphatic system** can't drain fluid in the way it should. ^[3] Some people are born with it, or it can happen after surgery or **radiotherapy** ^[4]
- An insect or animal bites you
- You get water (from the sea or a river, for example) in a cut. ^[1] But it is rare to get cellulitis or erysipelas this way.

What are the symptoms of cellulitis and erysipelas?

Cellulitis and erysipelas cause a large, red patch of inflamed skin. They can be very painful, but are usually easy to treat.

Cellulitis



Cellulitis and erysipelas

Cellulitis is an infection that causes red areas that feel hot and sore.

The main symptom of cellulitis is a patch of skin that feels hot and is red and sore. This patch is usually on your legs or arms, but it can appear anywhere. ^[5] ^[6] ^[7] ^[8]

The affected area may get bigger and the patch of skin may blister. ^[5] ^[6] ^[7] ^[8]

Some people get: ^[5] ^[6] ^[7] ^[8]

- Swollen **glands** near the infection
- Flu-like symptoms with a **fever** and sometimes vomiting.

Cellulitis that happens near the eye is a more serious (but quite rare) condition called **periorbital cellulitis**. The symptoms include swelling, warmth, and pain around the eye, and fever. If you get these symptoms, get medical help straight away.

Erysipelas

The symptoms of erysipelas are very similar to the symptoms of cellulitis. It's treated the same way.

The main difference is that erysipelas affects the layers of skin nearer the surface. So the inflamed patch of skin may be raised above the normal skin around it. ^[8]

Other problems

If your cellulitis is severe, you may also get **blood poisoning**. Or the infection can spread or get worse, damaging skin over a wide area. ^[6]

How common are cellulitis and erysipelas?

Cellulitis and erysipelas are common, but we don't know exactly how many people get them.

- Every year about 70,000 people in the UK go to hospital with cellulitis. ^[9] More people may have had it and been treated by their doctor without going to hospital.
- In one accident and emergency department in the UK, 3 in 100 people who came in for treatment had cellulitis. ^[10]
- In a hospital in New Zealand, nearly 2 in 100 people needed treatment for cellulitis. ^[11]

What treatments work for cellulitis and erysipelas?

If you have cellulitis or erysipelas and you are treated quickly, you're very likely to make a complete recovery.

- [Antibiotics](#) cure almost everyone if treatment is started quickly.
- Some people need to be treated in hospital.
- You may need to have antibiotics as a drip into your veins (also called an [intravenous infusion](#) or IV). But you'll probably be given tablets instead when you start to improve.
- If your cellulitis is mild, you'll probably just take antibiotic tablets.
- The antibiotic you are given will depend on what caused your cellulitis.

We normally rank treatments into categories according to whether they work. But antibiotics are the only treatment. We've looked closely at the research and found that antibiotics are likely to work.

Treatment Group 1

Treatments for cellulitis and erysipelas

Treatments that are likely to work

- [Antibiotics](#)

What will happen to me?

Most people who have cellulitis or erysipelas recover completely with treatment.

Cellulitis and erysipelas are easy to treat with [antibiotics](#). But they need to be treated quickly. One study looked at people who were treated for cellulitis in hospital. ^[12] Nearly everyone was cured after taking antibiotics for 14 days. Other studies show that antibiotics cure cellulitis in most people in less than two weeks. ^[13]

If you're usually healthy, you may be treated at home. ^[14] But some people need hospital treatment. You may be able to go home after a day or two if you're feeling better. ^[14]

About one-third of people have cellulitis again within three years. ^[15]

Sometimes cellulitis can spread and cause complications (other problems that are difficult to treat). These can be serious. For example, cellulitis can cause [blood poisoning](#), which is a severe infection that affects your whole body. ^[14] This is rare, but it may happen if the cellulitis isn't treated in time or if the antibiotics don't work.

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Some people get swelling in the arm or leg where they get cellulitis. This is called lymphoedema. Treatment usually gets rid of the inflamed patch of skin, but in some people the swelling doesn't go away. This happens to about 7 in 100 people who get cellulitis in their leg. ^[16]

If you get cellulitis around your eye, you need to get treatment as quickly as possible. This is because this kind of cellulitis can spread to your eye or into your brain. ^[13]

Treatments:

Antibiotics

In this section

Antibiotics are drugs that kill **bacteria**. You can get them on prescription from your doctor.

For cellulitis the antibiotics normally given (and their brand names) are:

- Benzylpenicillin, also known as Penicillin G (Crystapen)
- Clindamycin (Dalacin C)
- Erythromycin (Erythrocin, Erymax)
- Flucloxacillin (Floxapen)
- Phenoxymethylpenicillin, also known as Penicillin V.

Antibiotics can be given as tablets or as a drip (also called an intravenous infusion or an IV). If your cellulitis is mild you'll probably just take antibiotic tablets. If it is more severe you may need to have antibiotics as a drip into your veins. Which antibiotic you are given will also depend on what caused your cellulitis.

Antibiotics help most people with cellulitis. In studies, at least half the people taking them got better. ^{[17] [18] [19] [20] [21] [22] [23] [24] [25] [26] [27]} In some studies, everyone who took an antibiotic was cured. ^[23]

Most antibiotics can cause side effects. In studies, people taking antibiotics for cellulitis had only mild side effects. These included:

- Diarrhoea
- Feeling sick and vomiting
- Pain in their abdomen
- Headaches

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- Dizziness
- Rashes.

Cellulitis can sometimes be caused by insect bites or animal bites. You can also get cellulitis if water (from the sea or a river, for example) gets into cuts or grazes on your skin. If this happens, your doctor will probably give you different antibiotics. ^[28]

Lots of research has found that all antibiotics seem to work equally well to help most people with cellulitis. ^{[17] [18] [19] [20] [21] [22] [23] [24] [25] [29]} People in studies took antibiotics for five to 13 days.

Treatments you might have together with antibiotics

If you have cellulitis you'll be given antibiotics. You may also get extra treatment to help you feel better until the antibiotics start working. Painkillers can make you feel more comfortable. Paracetamol reduces pain and can also help if you have a temperature.

If your cellulitis is on your leg or arm, you may be told to keep that limb higher than the rest of your body. This may help the swelling go down. ^{[28] [30]}

If your skin starts to blister, or it cracks and weeps, you may be given a dressing or bandage to put on it. ^{[28] [30]}

If you have athlete's foot (an infection on your foot caused by a fungus) near the infection, it will need to be treated. This will help to stop the cellulitis coming back. ^[28] For more information, see [Athlete's foot](#) .

Further informations:

Glossary:

bacteria

Bacteria are tiny organisms. There are lots of different types. Some are harmful and can cause disease. But some bacteria live in your body without causing any harm.

inflammation

Inflammation is when your skin or some other part of your body becomes red, swollen, hot, and sore. Inflammation happens because your body is trying to protect you from germs, from something that's in your body and could harm you (like a splinter) or from things that cause allergies (these things are called allergens). Inflammation is one of the ways in which your body heals an infection or an injury.

ulcer

An ulcer is an open sore. Ulcers can happen in many parts of your body, such as in your stomach, and the skin of your legs, mouth, or genitals.

stroke

You have a stroke when the blood supply to a part of your brain is cut off. This damages your brain and can cause symptoms like weakness or numbness on one side of your body. You may also find it hard to speak if you've had a stroke.

lymphoedema

Lymphoedema is when lymph nodes can't drain lymph properly. This causes swelling. It happens when lymph nodes are destroyed or damaged. If you have breast surgery or radiotherapy for breast cancer, you can get lymphoedema and swelling in your arm.

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lymphatic system

The lymphatic system is your body's way of clearing unwanted materials from your blood and tissues. It includes a network of lymph nodes that filter these materials to detect if there is an infection that needs to be dealt with by your immune system.

radiotherapy

This is also called radiation therapy. It is a treatment that uses high-energy X-rays to kill cancer cells. It's most often used for tumours that are hard to treat with surgery alone. You won't feel any pain during this treatment, but you may get some side effects afterwards.

gland

A gland is any group of cells in the body that makes and releases something for use by another part of the body. For example, the thyroid gland makes a hormone called thyroxine. This acts on receptors within cells. By acting on the receptors it gives the cells a message to speed up their metabolism and work harder.

fever

If you have a fever, your body temperature is above 37 degrees Celsius (98.6 degrees Fahrenheit). With a fever you often get other symptoms, such as shivering, headache or sweating. A fever is usually caused by an infection.

blood poisoning

A severe infection in your blood is called blood poisoning or septicaemia. Bacteria get into your blood and multiply quickly. Blood poisoning requires emergency treatment with antibiotics. The symptoms are fever, shivering, low blood pressure, confusion and a rash. If it isn't treated quickly, it can cause serious damage to parts of your body. And it may cause death.

antibiotics

These medicines are used to help your immune system fight infection. There are a number of different types of antibiotics that work in different ways to get rid of bacteria, parasites, and other infectious agents. Antibiotics do not work against viruses.

intravenous infusion

When a medicine or a fluid, such as blood, is fed directly into a vein, it's called an intravenous infusion (or IV). To give you an intravenous infusion, a nurse, technician or a doctor places a narrow plastic tube into a vein (usually in your arm) using a needle. The needle is then removed and the fluid is infused (or dripped) through the tube into the vein.

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