

Cellulitis

Symptoms & causes

Overview



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Cellulitis (sel-u-LIE-tis) is a common, potentially serious bacterial skin infection. The affected skin appears swollen and red and is typically painful and warm to the touch.

Cellulitis usually affects the skin on the lower legs, but it can occur in the face, arms and other areas. It occurs when a crack or break in your skin allows bacteria to enter.

Left untreated, the infection can spread to your lymph nodes and bloodstream and rapidly become life-threatening. It isn't usually spread from person to person.

Symptoms

Possible signs and symptoms of cellulitis, which usually occur on one side of the body, include:

- Red area of skin that tends to expand

- Swelling
- Tenderness
- Pain
- Warmth
- Fever
- Red spots
- Blisters
- Skin dimpling

When to see a doctor

It's important to identify and treat cellulitis early because the condition can spread rapidly throughout your body.

Seek emergency care if:

- You have a red, swollen, tender rash or a rash that's changing rapidly
- You have a fever

See your doctor, preferably that day, if:

- You have a rash that's red, swollen, tender and warm — and it's expanding — but without fever

Causes

Cellulitis occurs when bacteria, most commonly streptococcus and staphylococcus, enter through a crack or break in your skin. The incidence of a more serious staphylococcus infection called methicillin-resistant *Staphylococcus aureus* (MRSA) is increasing.

Although cellulitis can occur anywhere on your body, the most common location is the lower leg. Bacteria are most likely to enter disrupted areas of skin, such as where you've had recent surgery, cuts, puncture wounds, an ulcer, athlete's foot or dermatitis.

Animal bites can cause cellulitis. Bacteria can also enter through areas of dry, flaky skin or swollen skin.

Risk factors

Several factors put you at increased risk of cellulitis:

- **Injury.** Any cut, fracture, burn or scrape gives bacteria an entry point.
- **Weakened immune system.** Conditions that weaken your immune system — such as diabetes, leukemia and HIV/AIDS — leave you more susceptible to infections. Certain medications also can weaken your immune system.
- **Skin conditions.** Conditions such as eczema, athlete's foot and shingles can cause breaks in the skin, which give bacteria an entry point.
- **Chronic swelling of your arms or legs (lymphedema).** This condition sometimes follows surgery.
- **History of cellulitis.** Having had cellulitis before makes you prone to develop it again.
- **Obesity.** Being overweight or obese increases your risk of developing cellulitis.

Complications

Recurrent episodes of cellulitis may damage the lymphatic drainage system and cause chronic swelling of the affected limb.

Rarely, the infection can spread to the deep layer of tissue called the fascial lining. Necrotizing fasciitis is an example of a deep-layer infection. It's an extreme emergency.

Prevention

If your cellulitis recurs, your doctor may recommend preventive antibiotics. To help prevent cellulitis and other infections, take these precautions when you have a skin wound:

- **Wash your wound daily with soap and water.** Do this gently as part of your normal bathing.
- **Apply a protective cream or ointment.** For most surface wounds, an over-the-counter ointment (Vaseline, Polysporin, others) provides adequate protection.
- **Cover your wound with a bandage.** Change bandages at least daily.
- **Watch for signs of infection.** Redness, pain and drainage all signal possible infection and the need for medical evaluation.

People with diabetes and those with poor circulation need to take extra precautions to prevent skin injury. Good skin care measures include the following:

- **Inspect your feet daily.** Regularly check your feet for signs of injury so you can catch infections early.
- **Moisturize your skin regularly.** Lubricating your skin helps prevent cracking and peeling. Do not apply moisturizer to open sores.
- **Trim your fingernails and toenails carefully.** Take care not to injure the surrounding skin.
- **Protect your hands and feet.** Wear appropriate footwear and gloves.
- **Promptly treat infections on the skin's surface (superficial), such as athlete's foot.** Superficial skin infections can easily spread from person to person. Don't wait to start treatment.

Diagnosis

Your doctor will likely be able to diagnose cellulitis by looking at your skin. In some cases, he or she may suggest blood tests or other tests to help rule out other conditions.

Treatment

Cellulitis treatment usually includes a prescription oral antibiotic. Within three days of starting an antibiotic, let your doctor know whether the infection is responding to treatment. You'll need to take the antibiotic for as long as your doctor directs, usually five to 10 days but possibly as long as 14 days.

In most cases, signs and symptoms of cellulitis disappear after a few days. You may need to be hospitalized and receive antibiotics through your veins (intravenously) if:

- Signs and symptoms don't respond to oral antibiotics
- Signs and symptoms are extensive
- You have a high fever

Usually, doctors prescribe a drug that's effective against both streptococci and staphylococci. It's important that you take the medication as directed and finish the entire course of medication, even after you feel better.

Your doctor also might recommend elevating the affected area, which may speed recovery.

Lifestyle and home remedies

Try these steps to help ease any pain and swelling:

- Place a cool, damp cloth on the affected area as often as needed for your comfort.
- Ask your doctor to suggest an over-the-counter pain medication to treat pain.
- Elevate the affected part of your body.
- Ask your doctor whether it might help to wear compression wraps or stockings.

Preparing for your appointment

You're likely to start by seeing your family doctor or a general practitioner, who may refer you to a doctor who specializes in skin disorders (dermatologist). If you have a severe infection, an emergency room doctor may examine you first. You may also be referred to an infectious disease specialist.

Here's some information to help you get ready for your appointment.

What you can do

- **List your symptoms**, including any that may seem unrelated to the reason for which you scheduled the appointment.
- **List key personal information**, such as if you've had any recent surgeries, injuries, animal bites or insect bites.
- **List medications**, vitamins and supplements you're taking and the dosage.
- **List questions to ask** your doctor.

Preparing a list of questions can help you make sure that you cover the points that are important to you. For cellulitis, some basic questions to ask your doctor include:

- How might I have gotten this infection?
- What tests do I need? Do these tests require special preparation?
- How is this treated?
- How long before the treatment starts working?
- What side effects are possible with this medication?
- I have other medical conditions. How do I manage them together?
- Are there alternatives to antibiotics?
- Is there a generic alternative to the medicine you're prescribing?
- How can I prevent this type of infection in the future?

Don't hesitate to ask other questions you have.

What to expect from your doctor

Your doctor is likely to ask you a number of questions, such as:

- When did your symptoms start?
- Do you remember injuries or insect bites to that area?
- How severe is the pain?
- Does anything seem to improve your symptoms?
- Are you allergic to or intolerant of any antibiotics?
- Have you had this type of infection before?

What you can do in the meantime

You may need a prescription antibiotic to clear your infection. However, until you see your doctor, you can wash the injured area with soap and water and place a cool, damp cloth over the affected area for relief.