



## Cellulitis

### Causes

Staphylococcus and streptococcus bacteria are the most common causes of cellulitis.

Normal skin has many types of bacteria living on it. When there is a break in the skin, these bacteria can cause a skin infection.

Risk factors for cellulitis include:

- Cracks or peeling skin between the toes
- History of [peripheral vascular disease](#)
- Injury or trauma with a break in the skin (skin wounds)
- [Insect bites and stings](#), animal bites, or human bites
- [Ulcers](#) from certain diseases, including diabetes and vascular disease
- Use of corticosteroid medications or medications that suppress the immune system
- Wound from a recent surgery

### Symptoms

Symptoms of cellulitis include:

- [Fever](#)
- Pain or tenderness in the affected area
- [Skin redness or inflammation](#) that gets bigger as the infection spreads
- Skin sore or rash that starts suddenly, and grows quickly in the first 24 hours
- Tight, glossy, stretched appearance of the skin
- Warm skin in the area of redness
- Joint stiffness from swelling of the tissue over the joint

- Hair loss at the site of the infection
- Nausea and vomiting

Signs of infection include any of the following:

- Chills or shaking
- Fatigue
- General ill feeling
- [Muscle aches](#) and pains
- Warm skin
- Sweating

## Exams and Tests

The health care provider will perform a physical exam. This may reveal:

- Redness, warmth, and swelling of the skin
- Possible drainage, if there is a buildup of pus ([abscess](#)) with the skin infection
- [Swollen glands](#) (lymph nodes) near the affected area

The provider may mark the edges of the redness with a pen, to see if the redness goes past the marked border over the next several days.

Tests that may be ordered include:

- [Blood culture](#)
- Complete blood count ([CBC](#))
- Culture of any fluid or material inside the affected area
- A [biopsy](#) may be done if other conditions are suspected

## Treatment

You will likely be prescribed antibiotics to be taken by mouth. You may be given pain medicine as well, if needed.

At home, raise the infected area higher than your heart to reduce swelling. Rest until your symptoms improve.

You may need to stay in a hospital if:

- You are very sick (for example, you have a very high temperature, blood pressure problems, or nausea and vomiting that does not go away)
- You have been on antibiotics and the infection is getting worse (spreading beyond the original pen marking)
- Your immune system is not working well (due to cancer, HIV)
- You have an infection around your eyes
- You require antibiotics through a vein (IV)

## Outlook (Prognosis)

Cellulitis usually goes away after taking antibiotics for 7 to 10 days. Longer treatment may be needed if cellulitis is more severe. This may occur if you have a chronic disease or your immune system is not working properly.

People with fungal infections of the feet may have cellulitis that keeps coming back. Cracks in the skin from the fungal infection allow the bacteria to get into the skin.

## Possible Complications

The following may result if cellulitis isn't treated or treatment doesn't work:

- Blood infection (sepsis)
- Bone infection ([osteomyelitis](#))
- Inflammation of the lymph vessels ([lymphangitis](#))
- Inflammation of the heart (endocarditis)
- [Meningitis](#)
- [Shock](#)
- Tissue death ([gangrene](#))

## When to Contact a Medical Professional

Call your provider if:

- You have symptoms of cellulitis
- You are being treated for cellulitis and you develop new symptoms, such as persistent fever, drowsiness, [lethargy](#), blistering over the cellulitis, or red streaks that spread

Seek medical attention right away if the cellulitis is on your face.

## Prevention

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Protect your skin by:

- Keeping your skin moist with lotions or ointments to prevent cracking
- Wearing shoes that fit well and provide enough room for your feet
- Learning how to trim your nails to avoid harming the skin around them
- Wearing appropriate protective equipment when participating in work or sports

Whenever you have a break in the skin:

- Clean the break carefully with soap and water. Apply an antibiotic cream or ointment every day.
- Cover with a bandage and change it every day until a scab forms.
- Watch for redness, pain, drainage, or other signs of infection.

- **References**

- Heagerty AHM. Cellulitis and erysipelas. In: Lebowitz MG, Heymann WR, Berth-Jones J, Coulson I, eds. *Treatment of Skin Disease: Comprehensive Therapeutic Strategies*. 4th ed. Philadelphia, PA: Elsevier Saunders; 2014:chap 39.
- Pasternak MS, Swartz MN. Cellulitis, necrotizing fasciitis, and subcutaneous tissue infections. In: Bennett JE, Dolin R, Blaser MJ, eds. *Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases*. 8th ed. Philadelphia, PA: Elsevier Saunders; 2015:chap 95.

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