

Patient Information for Cellulitis

Overview

Cellulitis is an infection of the skin and is most often caused by the bacteria *Streptococcus* or *Staphylococcus*. These bacteria are able to enter the skin through small cracks (fissures), causing the sudden appearance of redness, swelling, and warmth in the skin. Cellulitis is sometimes accompanied by fever, chills, and general fatigue.

If the infection is left untreated for too long, cellulitis can result in pockets of pus (abscesses) or the spread of bacteria into the bloodstream (bacteremia). However, most cases of cellulitis resolve with appropriate antibiotic therapy.

Who's At Risk

Cellulitis can occur in anyone. Factors that increase the risk of developing cellulitis include:

- Diabetes
- Lymphedema
- Skin wounds
- Chronic lower leg swelling (edema)
- Athlete's foot (tinea pedis)
- Bites from insects, animals, or other humans
- Obesity
- Poor circulation in the legs (peripheral vascular disease)
- Weakened immune system due to underlying illness or medication
- Intravenous drug abuse

Signs & Symptoms

Cellulitis can affect any part of the body, but the most common locations are:

- Lower legs
- Arms or hands
- Face

Cellulitis initially appears as pink-to-red minimally inflamed skin. The involved area may rapidly become deeper red, swollen, warm, and tender and increase in size as the infection spreads. Occasionally, red streaks may radiate outward from the cellulitis. Blisters or pus-filled bumps may also be present.

Cellulitis may be accompanied by swollen lymph nodes, fever, chills, and fatigue.

Self-Care Guidelines

If you think you have cellulitis, make an appointment to see your doctor. While you are waiting for the appointment with your physician, you can elevate the involved body part in order to decrease swelling. A cool, clean, moist towel can be applied to the area to decrease pain.

When to Seek Medical Care

If you develop a tender, red, warm, enlarging area on your skin, make an appointment with your physician as soon as possible to get treatment and to avoid complications that may occur if cellulitis is left untreated. If you also have fever and chills, or if the area involves the face, you should go to the emergency room.

If you are currently being treated for a skin infection that has not improved after 2–3 days of antibiotics, return to your doctor. You may need treatment with different medications, or the infection may have spread deeper into your skin.

Community-associated methicillin-resistant *Staphylococcus aureus* (CA-MRSA) is a strain of "staph" bacteria that is resistant to antibiotics in the penicillin family. This class of antibiotics has been the cornerstone of antibiotic therapy for staph and skin infections for decades. CA-MRSA previously infected only small segments of the population, such as health care workers and persons using injection drugs. However, CA-MRSA is now a common cause of skin infections in the general population. While CA-MRSA bacteria are resistant to penicillin and penicillin-related antibiotics, most CA-MRSA infections can easily be treated with commonly available nonpenicillin antibiotics. Rarely, CA-MRSA can cause a deeper skin infection, which usually requires intravenous (IV) antibiotics to treat the infection. There is an additional strain of MRSA (hospital-acquired MRSA), usually found in health care settings, that is susceptible only to intravenous antibiotics, so admission to the hospital is often needed for effective treatment.

Treatments Your Physician May Prescribe

Your physician will usually be able to easily diagnose cellulitis by examining the affected area. Sometimes your doctor may want to get additional information by ordering blood tests and/or performing a bacterial culture in order to identify the specific bacterium that is causing the cellulitis as well as to test its susceptibility to different antibiotics to help guide treatment decisions.

A bacterial culture involves the following:

1. Opening a blister or pus-filled bump with a needle, scalpel, or lancet after cleansing the skin.

2. Rubbing a sterile cotton-tipped applicator across the skin to collect the sample.
3. Sending the specimen to a laboratory.

Typically, the laboratory will have preliminary results within 48–72 hours if there are many bacteria present. However, the culture may take a full week or more to produce final results. In addition to identifying the type of bacterium that is causing the cellulitis, the laboratory usually performs antibiotic sensitivity testing in order to determine the antibiotics that will be most effective in treating the bacteria.

While waiting for the results from the bacterial culture, your doctor may want to start you on an antibiotic to fight the most common bacteria that cause cellulitis. Once the final culture results have returned, your physician may change the antibiotic you are taking, especially if the infection is not improving.

Mild cases of cellulitis in a healthy person can be treated with oral antibiotic pills. Common antibiotics that are used to treat cellulitis include the following:

- Dicloxacillin
- Cephalexin
- Trimethoprim-sulfamethoxazole
- Clindamycin
- Doxycycline
- Linezolid

Someone who appears to be very sick or who has other chronic illnesses that may complicate their recovery may need to be hospitalized to receive intravenous antibiotics. Common intravenous antibiotics that are used to treat cellulitis include the following:

- Nafcillin
- Oxacillin
- Cefazolin
- Vancomycin

If your doctor prescribes antibiotics, be sure to take the full course of treatment. In addition to prescribing antibiotics, your doctor will likely want to make sure that your underlying medical problems, if any, are being adequately managed.

