

# Cellulitis

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My Life With Lymphedema

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**Related Terms:** lymphedema, erythema, staph aureus, strep A, gram-negative bacteria, gangrene, tissue necrosis, septicemia, regional lymphadenopathy, Keflex, Augmentin, penicillins, pneumococcus, hemophilus influenzae, pasteuria multocida, erysipelothrix rhusiopathia, gram negative bacteria

## Cellulitis

This is often our worst nightmare and sends us to the hospital more than anything else regarding lymphedema. In this section there are many detailed articles on cellulitis, complications of and treatment for cellulitis and/or lymphangitis.

## Acute Cellulitis

Acute Cellulitis is one of the complications of lymphedema. The patient may not be aware of the source of the etiology. Sometimes it may be a cut, mosquito bite, open wound or other infection in the body.

The first sign is increased or different quality of PAIN involving the lymphedema limb. The patients often describe this as a "flu like symptom or an ache" involving the Lymphedema arm or leg. This is usually followed by sudden onset of ERYTHEMA (redness, red streaks or blotches) on the involved limb. The HYPERTHERMIA (lymphedema limb becomes warm, hot) will follow and the patient may experience the CHILLS and even HIGH FEVER.

The early intervention and treatment with antibiotics will resolve this condition (it usually takes a very minimum ten day course of antibiotics). Only a Medical Doctor will be able to prescribe the antibiotics, thus a consultation with a Doctor is necessary. Severe cellulitis may require Intervenous Antibiotic treatment and hospitalization. Again, elevation of the affected limb is important.

During that phase the patient should NOT massage the lymphedema limb, bandage, apply the pump, wear tight elastic sleeve or exercise excessively. Avoid the blood pressure and blood to be drawn from the involved arm. Keep the limb elevated as much as possible while resting. Once the symptoms dissipate the treatment MLD/CDP should be initiated.

How do we prevent this infection? The patient should be careful with daily activities and take all precautions to protect the skin (wear gloves when gardening, cleaning

with detergents, etc... ). If an injury to skin occurs on the lymphedema limb it is necessary to clean the wound with alcohol or hydrogen peroxide and apply antibiotic ointment. If the symptoms progress seek the attention of a physician immediately.

It is so very important to avoid getting cellulitis as it further destroys the lymphatic system. Allowed to spread or continue it can become systemic and can lead to gangrene, amputation of the limb or even death.

## **Clinical**

Cellulitis is clinically a spreading infection involving both the dermis and subcutaneous tissues. Unlike erysipelas, it will not have a clear raised border. Other features may include red streaking from the infected area, regional lymphadenopathy.

## **Symptoms**

Symptoms include all over body ache, fever, severe pain of the infected area, chills, weakness. The skin color will be red, warm and very tender to the touch.

## **Causes**

The most common bacteria responsible for cellulitis infections are staph aureus and strep A. Other less common bacterial agents include Strep B, gram-negative bacteria, and immunocompromised patients pneumococcus. Less common bacteria such as Hemophilus influenzae, Pasturella multocida, and erysipelothrix rhusiopathiae can cause it as well.

Entry foci for the bacteria includes nasal cavities, wound, cuts, scrapes (any type of skin break). Insect bites (especially spider) can cause the condition. Cat scratches, animal bites are another source of bacteria.

## **Risk Factors**

Patients with any of the following disorders are more at risk for developing serious and or life threatening cellulitis:

Lymphedema, Diabetes, immunodeficiency (of any type), Varicella (cellulitis as a complication of), chemotherapy patients, venous insufficiency or venous stasis, chronic steroid users, post surgical patients, individuals with edema and finally age may also be a factor with infants and the elderly more susceptible to infections.

## **Complications**

Complications can include septicemia (sepsis), tissue necrosis, gangrene, amputation of the affected limb, death. It should be noted also that cellulitis causes further damage to the lymphatics and thereby makes lymphedema worse. Other complications include lymphangitis, skin abscesses.

In compromised patients, physicians must be careful to observe for a complicating gram-negative super infection that can accompany regular gram-positive bacteria. This can occur as a result of the even further depletion of the body's immune system.

Other complications include bacteremia, septic shock, meningitis (if cellulitis is on the face), and lymphangitis.

It is critical for patients with lymphedema to understand that every cellulitis infection further damages and scars the lymphatics and thereby worsens lymphedema.

## **Treatment**

Cellulitis responds well to antibiotic therapy. Generally, a ten day course of treatment is prescribed. Antibiotics used to treat cellulitis include Keflex, Augmentin, penicillins. Unasyn and vancomycin are standard IV antibiotics. In situations of a gram negative infection, Gentamicin is used.

For special at risk patients, blood work may also be indicated to assure the infection has not become systemic.

This group, which includes lymphedema patients may need extended IV antibiotic therapy.

## **Prognosis**

With early diagnosis and subsequent rapid treatment the outcome is actually excellent with the overwhelming number of patients making full recovery. In special risk groups however, there is a heightened risk of complication and morbidity.

## **How can you prevent cellulitis?**

### **Preventative Antibiotic Therapy**

If you are particularly susceptible to infections, you may wish to discuss with your doctor about undertaking preventative antibiotic therapy. There are a couple ways of doing this.

Either an oral antibiotic or if you are not allergic to penicillin, you may well consider taking long acting penicillin injections. This worked wonderfully for me during the 1970's. Until my family allergy to penicillin raised its ugly head, this was perhaps the most successful therapy I have had in preventing cellulitis.

Remember one important point regarding cellulitis. With fibrosis the bacteria is able to "hide" in pockets and may escape the antibiotic or the fibrosis will make it much more difficult for the antibiotic to be effective. Doing all you can to prevent infections is critical.

