

## Hand Infections

*“Working with a knowledgeable hand therapist can make the difference between success and failure in complex hand surgical cases. The therapist extends the continuum of our care, as well as functioning as coach and trainer for our patients.”*

*Marybeth Ezaki, MD, Past President, American Society for Surgery of the Hand*

### What is a hand infection?

The hand can easily be injured during everyday activities. Any trauma to the hand, especially an injury that breaks the skin, may introduce damaging bacteria into the area that can cause an infection.



*Example of an infection of the fingernail called a “paronychia”*

Hand infections can include the nail, the tendons and their coverings, the joints and other structures deep within the hand.

### What are the symptoms of a hand infection?

Symptoms of a hand infection include pain, redness, swelling, warmth, pus and loss of motion. Some finger infections cause the finger to be held in a bent position and extreme pain is felt if the finger is forced to straighten. A hand infection, if not treated early, can cause severe problems, such as stiffness in the wrist and fingers, decrease in hand strength and loss of tissues such as skin, nerve and bone.



*An infection near the knuckle of a middle finger showing redness and pus*

### What are the causes of a hand infection?

A simple cut or scrape that is not kept clean or a splinter left in a finger can develop a hand infection. One common cause of hand infections occurs when bacteria from the mouth of a person or animal gets into the body after the skin is broken. This may occur when

the knuckle is split open by the edge of a tooth or after a cat or dog bite. Cellulitis is the result of a skin injury such as a cut, insect bites or from a healing surgery incision. It can spread into the bloodstream and cause serious problems. Other hand infections are the result of herpes virus or even some bone diseases.

### What is the treatment for a hand infection?

A physician may run tests to determine the type of bacteria causing the infection in order to decide how to treat it. Some hand infections can be treated with antibiotics and rest. Others may require more involved treatments to drain the infection or remove infected or dead tissue and allow the skin to heal without complications. Hand therapy is usually recommended in more complicated hand infection cases.

### What can a hand therapist do for me?

The hand therapist is an important team member in the treatment of hand infections. Treatment may include wound care (dressing changes), range of motion and strengthening exercises. The therapist may fabricate an orthosis to protect the injured area of the hand. An orthosis might also be made to improve joint motion once the infection is gone. The hand therapist’s goals are to assist the patient to regain as much motion, strength and function in their hand after a hand infection.

*Custom-made finger orthosis for a healing finger infection*

