

Swelling



Swelling in the hands and arms is common with many injuries and medical conditions. It is important to identify the cause so that appropriate treatment can be started, and complications can be avoided.

Causes

Swelling can occur because of an injury to the hand or arm or a medical condition. Traumatic injuries, such as a crushing injury or broken bones, result in a lot of fluid rushing to the injured area. This is part of the body's natural healing response. The body creates inflammation and delivers extra blood and fluid to the injury so that there are more cells and healing factors available for repair. Too much inflammation, however, can be painful and harmful.

Medical conditions can cause swelling as well. Arthritis commonly results in swelling of the hands, often in the morning upon waking up. Infections can also result in swelling, and these should be treated right away. More localized swelling from ganglion cysts or tumors should be looked at in your hand surgeon's office.

Signs and Symptoms

Because of the pressure build-up, swelling can cause pain and discomfort. In the hand, it can also temporarily reduce your flexibility and mobility which, if left for a long period of time, can result in significant stiffness. In certain cases, swelling can become so severe that it can reduce blood flow or injure nerves and muscles in the forearm and hand. This is especially true with very bad fractures and infections.

Treatment

Swelling occurs mostly because of the buildup of fluid in spaces within the hand and wrist. This fluid typically collects in areas that cannot be "pumped" out by the blood vessels. Because of this, keeping the hand and arm down results in gravity keeping the fluid in its place

and even allowing for more fluid to enter into the hand. Therefore, keeping the hand and arm elevated, ideally above the level of your heart, will help gravity take the fluid out of the hand and arm. Think of it like water flowing downhill; keeping the hand down makes the water go into the hand and keeping the hand up makes the water go back into the body. Keeping the hand elevated, potentially for extended periods of time, is critical. This is especially true after an injury or surgery, as it takes much longer for the swelling to come out of the hand than it does to get into it.

Other things you can do to help swelling include:

- **Applying ice** to the affected area or over the bandage, which can also help reduce pain
- **Splinting/immobilizing**, which can help stop more swelling from coming into the hand or arm
- **Taking anti-inflammatory medications** (e.g. NSAIDs such as Ibuprofen), which can reduce swelling, especially when swelling is caused by arthritis
- **Moving the fingers, wrist, and arm regularly**, if allowed with your condition, which can help pump the fluid back to the body. This is especially important for people with fractures of the wrist; anything that is not splinted or casted should move regularly (as approved by your hand surgeon).
- **Wearing compressive wraps** such as ACE™ wraps or isotoner gloves, which can be very helpful in massaging fluid back to the body. Do not apply too tightly.

If you're experience swelling that was caused by an infection, address it immediately by calling your hand surgeon or going to the emergency room for an evaluation. You may need antibiotics or even surgery to remove the infection. If you develop numbness or tingling with any kind of swelling, especially after a traumatic injury, please go to an emergency room immediately.