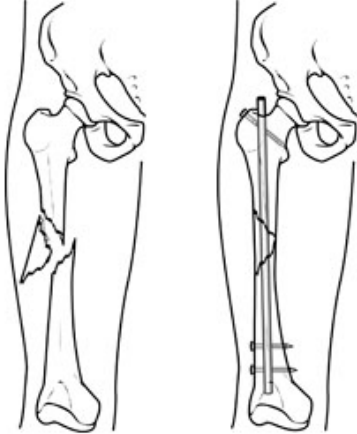


Fracture Care in Adults

What is a fracture?

A fracture is any complete or incomplete break in the bony structure of the skeleton. A fracture is **not** “a less severely broken bone”. Fractures occur in a variety of patterns depending on the cause of the injury and the health of the bone structure.

How are fractures treated?



Fracture treatment varies based on type and severity of fracture in combination with a patient’s age, health, and level of activity. The primary goal of fracture care is to restore alignment of the bone so that it can heal in a normal position and allow normal function of the extremity. Many fractures are treated by external stabilization of the broken bone, i.e. a cast, splint, or brace. Some fractures require manipulation of the bone fragments into an anatomical position before being placed in a cast or splint (this is known as “closed reduction”). Certain fractures will require a surgical procedure to adequately stabilize the broken fragments.

image courtesy of
orthoinfo.aaos.org

What can I do to treat pain related to a fracture?

Fractures can be quite painful. The body responds to a broken bone by producing swelling and inflammation at the site of the fracture. The *most effective* way to treat pain is to combat the inflammation and swelling through icing and elevation of the injured limb.

☑ **Icing:** Never apply ice to bare skin. Ice the extremity for periods of 20-30 minutes. If it is difficult to apply ice because of a bulky cast or splint, it is still helpful to apply ice up higher on the injured limb, above the cast or splint.

☑ **Elevation:** In a reclining position, use pillows to support the limb in a position 12-20 inches above heart level.

☑ **Medication:** can be helpful to alleviate the discomfort associated with a fracture. Tylenol (acetaminophen) can be taken at regular intervals. Take care to ensure that Tylenol (acetaminophen) use from all sources (over the counter acetaminophen and acetaminophen containing prescriptions) not exceed 4 grams (4000 milligrams) a day. If you drink regularly or have liver disease, discuss appropriate acetaminophen dosing with your physician.

It is best for most patients to avoid frequent or high doses of NSAIDs (medications such as ibuprofen, Advil, Motrin, naproxen, Aleve) or aspirin because research suggests that these drugs impair bone healing after fractures. Children should never take aspirin.

How long will a fracture take to heal?

Simple fractures in healthy adults will typically heal in about 6 weeks. More severe fractures or highly fragmented fractures, especially those involving joints, can take 3 months or more to heal. Patients who use nicotine, have diabetes, anemia, or conditions which require steroid medications typically have longer healing times. Satisfactory healing of the bone in good alignment is monitored by examination and x-rays over several months.

(continued)

What things can I do to help my fracture heal?

- ♦Ice and elevate to limit swelling and inflammation during the first 3-7 days.
- ♦Eating a balanced diet that includes calcium and vitamin D will help your body build bone to heal the fracture. For older people, adequate dietary calcium and Vitamin D, in conjunction with weightbearing exercise, may help to prevent further fractures.
- ♦**Stop smoking/tobacco use.** People who use nicotine have impaired healing and are far more likely to suffer from chronic nonunion of fractures, which may cause chronic pain and disability.
- ♦Work with your primary care physician to responsibly manage conditions such as diabetes and anemia. The more well controlled these conditions are, the better your fracture will heal.
- ♦Follow your doctor's recommendations for activity restrictions. Pain often subsides long before the fracture is fully healed. Just because it doesn't hurt doesn't mean that you are ready for return to full activities.

I have a splint or cast. What do I need to know about it?

The splint or cast will help to hold your bone in proper alignment for the fracture to heal. While casts and splints offer protection from the outside environment, they do not function as "body armor". You still need to use common sense and follow your doctor's instructions to protect the extremity from outside injury.

It is most important to keep the splint clean and dry. Cover the splint with a plastic bag for bathing and even when covered, don't attempt to submerge the cast or splint. If it becomes slightly damp, you may attempt to dry it out with a hair dryer on low heat. However, if the splint or cast is saturated or you are having significantly increased odor or skin irritation, you need to schedule an appointment to have the cast or splint changed or seek evaluation at an urgent care center.

Avoid sticking anything inside the cast or splint, as items may break off, get stuck inside, or disrupt inner padding, all of which can cause skin wounds under the splint. Don't pull on the exposed padding, as this is intended to protect your skin from rough edges on the cast or splint. If you experience skin irritation, loosening, breaking or splitting of the cast, rubbing at the heel or elbow, or severely increased pain or swelling, your cast or splint fit should be assessed by a physician.

What symptoms should I seek further medical attention for?

- ♦You are having severe pain and swelling that is unrelieved by the medication recommended by your doctor
- ♦You develop increasing tightness, numbness, tingling, or burning in the injured extremity or have difficulty moving fingers and toes below splint or cast.
- ♦You have symptoms of compromised circulation to the injured extremity: fingers or toes are turning pale, purple, blue and cold to the touch.
- ♦You experience a severe fall or blow to the injured extremity and feel bone fragments shift or have severely increased pain.
- ♦You develop fever or chills without other explanation, i.e. a flu or cold.

Remember...

This document contains general guidelines and is not a substitute to your physician's instructions or an alternative to seeking appropriate medical care or follow-up appointments. For questions or concerns, seek professional medical attention. For medical emergencies, call 911.