

BONE FRACTURES AND SPRAINS

Broken or cracked bones are called “fractures”. Sprains are tears or stretching injuries to ligaments, the fibrous bands that hold your bones together. Both types of injuries can be painful and are often treated the same. These injuries are usually caused by trauma such as a fall, twisted ankle, blow to the body, or car accident. The basics of how to care for the most common types of sprains and fractures will be discussed but you may also receive special instructions from your healthcare provider. Be certain you understand how to care for your injury before you leave today.

Splints and Casts

A splint or cast may be used to help prevent further damage and reduce pain by keeping the injured part still. Splints are often used as initial treatment for fractures and severe sprains. They may look like a cast, but the hard part does not go all the way around. For this reason they are sometimes called a “half-cast”. A splint may be all that you will need, but more often they are used to allow swelling to go down until a regular cast can be placed by a specialist in a few days. A regular cast may be used instead of a splint, but is usually left in place much longer. Your provider will decide which is best depending upon your injury.

Care for Splints and Casts

- Keep the splint or cast dry. The plaster will soften and the padding can irritate the skin if it gets wet.
- Do not put any weight on a leg splint or cast unless told to do so. You may need crutches or a walker, so be sure to watch the training video if this is recommended.
- Never put anything, such as a coat hanger, inside your splint or cast to scratch an itch. This may cause an infection.
- Do not trim, remove padding or change a cast or splint in any way.
- Unless instructed to do so, do not remove the splint until your follow up appointment.
- If your toes or fingers turn blue or begin tingling call your healthcare provider or go to the emergency department.

Slings

A sling is used only for comfort. Once the pain has gone you may no longer need it, but if recommended it should be used at least until your follow up appointment. You can remove it when sleeping or bathing. Be sure you understand how to remove and reapply the sling properly.

Elastic Bandage or Support Device

You may be given an elastic bandage or another type of support device to decrease swelling and pain. Before applying make sure the skin is clean, dry, and free of drainage. If a wound is present, apply a dressing over the injured area before wrapping. Unless used to secure a splint, elastic bandages should be removed when sleeping. Do not use a worn out bandage because this applies uneven pressure. Do not wrap the elastic bandage too tight. Loosen it if your toes or fingers swell, turn blue, or begin tingling. If these symptoms persist call your healthcare provider or go to the emergency department.

Sprains

A sprain can cause immediate pain and swelling OR symptoms can occur several hours after the injury. Most sprains heal in 1 to 2 weeks with simple home treatment. You may return to normal activities slowly as directed by your healthcare provider. If you have pain, the injured arm or leg is not ready for normal use.

Bone Fractures

Fractures usually require special treatment such as a sling, splint, or cast. If your initial care is provided in the emergency department, treatment is usually limited to applying a splint with additional outpatient examination and treatment by a specialist. A cast or even surgery may be necessary, so follow up with a specialist is important if you are instructed to do so. Your emergency care provider will tell you which of the following treatments are necessary based on your injury.

Minor Fractures

Fractures of the collar bone (called the clavicle) and certain elbow and shoulder fractures often only need a sling for 1 to 3 weeks for comfort. Certain foot fractures may only require a “post-op shoe” or stiff soled shoe for a few weeks. Fractured fingers or toes may only need to be “buddy-taped” or placed in a finger splint.

Extremity Fractures

Fractures of the upper arm, elbow, forearm, wrist, and hand are usually initially treated with a splint. Fractures of the knee, lower leg, ankle, and foot are also usually initially treated with a splint, but additional care is needed because you will not be able to walk normally. Certain knee injuries are treated with a knee immobilizer instead of a splint.

Instructions for an Injured Arm, Elbow, Wrist or Hand

- No lifting with the injured arm.
- Elevate your hand higher than your arm as much as possible.
- Move your fingers frequently.

Instructions for an Injured Leg, Knee, Foot or Ankle

- Do NOT place weight on the injured leg unless you are told to do so.
- Use crutches, a walker, or a cane as directed and view the training video.
- Elevate your foot higher than your knee when you are resting.
- Move your toes frequently.

Follow Up Care

Follow up care is very important to continue the evaluation and treatment of your injury as an outpatient. This should be scheduled with your primary care provider or a specialist, such as an orthopedic surgeon. A referral will be provided if necessary. Call for an appointment as soon as possible. Mention that you were an emergency department patient so that you can get an appointment within the recommended time for follow up. Also ask the office if you will need to pick up the original x-rays before your visit. This is important because not having the x-rays may delay your ongoing treatment.

Controlling Pain and Swelling

Fractures and even sprains may cause pain and swelling for several days. The pain may increase somewhat during the first 24 hours after the injury. Over-the-counter medications can be helpful, but stronger prescription medication may be necessary. Be sure to ask your emergency care provider about a prescription if you are having pain. You may not have another chance to get one for a few days.

Medication for Pain

Do not take any medication if you are allergic to it. Do not take a medication if you have a medical condition or take other medications that might interfere with it.

Over-the-Counter Medications

- Acetaminophen (Tylenol®) every 4 hours as needed.
- Aspirin every 4 hours OR Ibuprofen (Advil®, Medipren®, Nuprin®, Motrin®) every 6 hours as needed.
- Follow the dosage recommendation on the package label or as directed by your healthcare provider.

Prescription Medications

Take prescription medication as prescribed if provided by your emergency care provider. Most prescription pain medication includes acetaminophen or ibuprofen so be careful not to double dose if you also take over-the-counter medication.

The following often work better than medication to relieve pain and reduce swelling: Elevate the injured part above the level of your heart. Apply an ice bag wrapped in a dry cloth for about 20 minutes every 2 hours for the first 2-3 days. Do NOT put ice or ice bag directly on the skin.

Warning Signs

If you experience any of the following symptoms, contact your healthcare provider or go to the emergency department.

- Increased pain not controlled by pain medication.
- Numbness or tingling in the fingers or toes.
- Fingers or toes become pale or experience a loss of feeling.
- Increased severe pain with movement of the fingers or toes.
- Fever or chills.
- Discoloration of the skin that looks like a bruise is normal. However, if the skin becomes red and warm you should call your healthcare provider.

What We Have Learned

1. You can walk on a leg splint or cast.
True or False
The Answer is False
2. Applying ice and elevating the injured part may reduce pain and swelling.
True or False
The Answer is True
3. Follow up with your doctor or a specialist is important.
True or False
The Answer is True
4. If you have numbness or tingling in the fingers or toes you should call your healthcare provider or return to the emergency department.
True or False
The Answer is True

Sources for More Information

American College of Emergency Physicians:

<http://www.acep.org/>