# Everything you need to know about wrist sprains





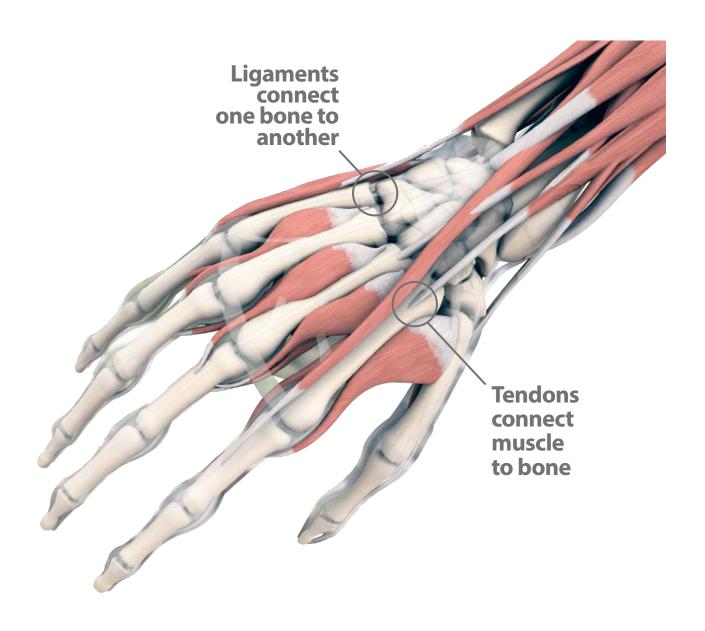
### **WRIST SPRAINS**

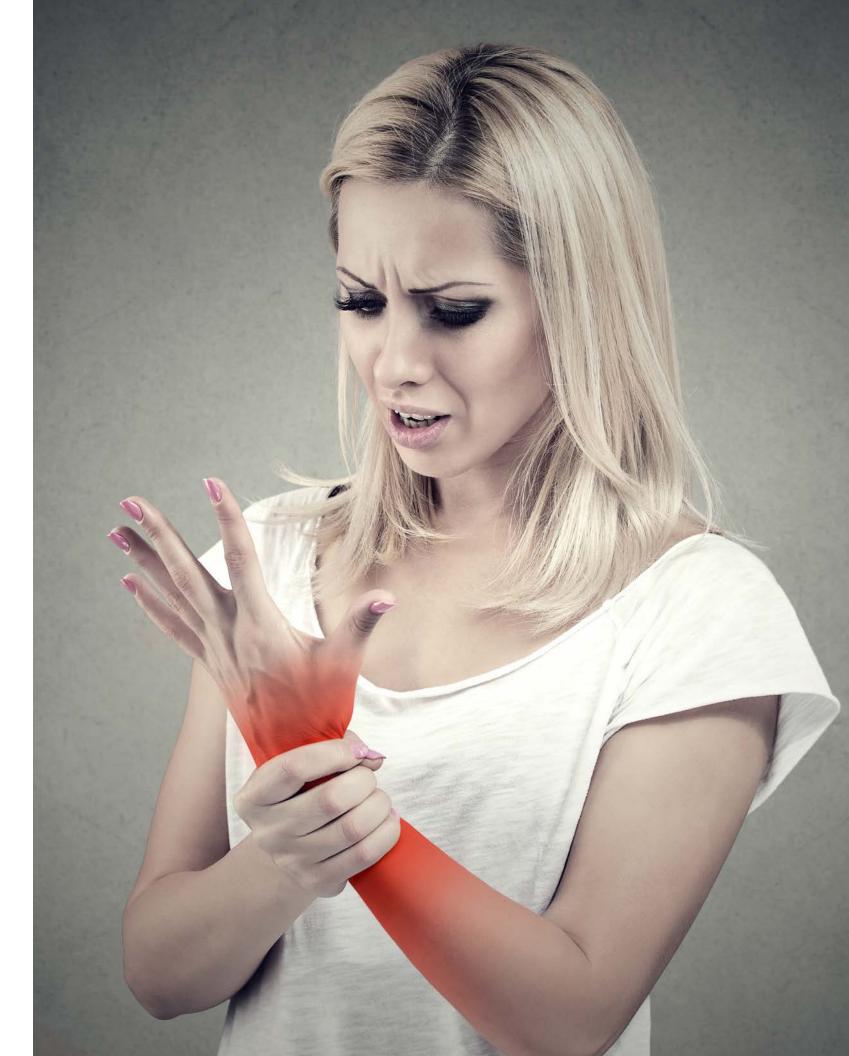
#### **OVERVIEW**

Wrist sprains are very common injuries that occur to individuals of any age. They can be caused by falling onto an outstretched hand or accidentally bending the wrist forcefully. Most wrist sprains can be healed via nonsurgical treatments, although in some severe cases surgery may be needed.

#### **ANATOMY**

A sprain in the wrist refers to stress on a ligament. Ligaments are strong bands of connective tissue that hold the bones together. There are many ligaments in the wrist that can be sprained if unusual stress is put on them. If a ligament is stretched or torn, you may need treatment to ensure you can get your full wrist mobility back.







### WRIST SPRAINS

#### **DESCRIPTION & SYMPTOMS**

Wrist sprains are typically caused by falls or accidental movement in athletics. An unusual amount of pressure on the wrist such as a fall on an outstretched hand may sprain the wrist.

Sprains can range in severity. Much like other ligament tears such as ankle sprains, wrist sprains are graded on a scale of 1 to 3 - 1 being mild and 3 being severe.

- •GRADE 1: The mildest sprain. Occurs when ligaments are unusually stretched but not torn. This mostly occurs in accidental everyday movement.
- •GRADE 2: Moderate sprains that occur when the ligaments are partially torn. It is not uncommon to have some loss of function with this grade of sprain.
- •GRADE 3: The most severe sprain occurring when ligaments are completely torn. Grade 3 wrist sprains need immediate medical care, as the ligament may have taken a chip of bone with it when it tore (an avulsion fracture). These sprains usually require surgical care.

Symptoms of a sprained wrist vary depending on the severity. The most common symptoms include:

- •Swelling in the wrist
- •Amount of pain at the time of the sprain
- Persistent pain with wrist movement
- •Bruising/discoloration of the skin around the wrist
- Wrist tenderness
- •A "popping" feeling inside the wrist
- •A warm or fever-like feeling to the skin around the wrist

Individuals with higher pain thresholds may feel as though their injury is mild if they do not see any swelling, but even that could still be a ligament tear that requires a surgical procedure.

An unrecognized fracture (also known as an occult fracture) is sometimes mistaken as a sprained wrist. If this is the case and it is not treated, the broken bone may not heal properly and could need surgery.

It is recommended in all but very mild cases that if you feel you have sprained your wrist you should make an appointment with a Florida Orthopaedic Institute physician for diagnosis.

### DIAGNOSES, TREATMENTS & NEXT STEPS

#### **DIAGNOSES**

During a physical examination, your physician will ask about your symptoms and medical history. They will also ask about any previous hand or wrist injuries you may have sustained in the past.

Your physician will examine your arm and hand to ensure that you have not broken any bones. They will ask about numbness in the hand or tenderness in certain areas. Partial ligament tears are sometimes hard to diagnose but can become a chronic disability if left untreated.

Your physician may order imaging tests such as x-rays to determine whether your wrist is sprained and to what grade it could be sprained. Although x-rays do not show an injury to a ligament, they can show whether there have also been any broken bones because of the sprain.

In severe cases, a magnetic resonance imaging (MRI) scan, computed tomography (CT) scan, or arthrogram may be ordered. An MR arthrogram is used to make the joint and ligaments show up more clearly via dye injected into the joint.

#### TREATMENT OVERVIEW

Your treatment will depend on factors such as age, the grade of sprain and if there are any other related injuries or broken bones. Most wrist sprains can be treated at home and healed within a few weeks.

### NON-SURGICAL TREATMENTS

The Florida Orthopaedic Institute's philosophy is to first try all appropriate nonsurgical methods to increase mobility and function.

Mild wrist sprains can be treated at home via the RICE protocol:

- •Rest the joint for at least 48 hours
- •Ice the injury to reduce swelling
- •Compress the swelling with an elastic bandage
- •Elevate the injury above the level of the heart

It is important to remember to use an ice pack or wrap a towel around the ice. Do not apply it directly to the skin. Apply the ice for 20 minutes at a time, on and off.

Over-the-counter medicines such as aspirin or ibuprofen (Motrin, Advil) may help with pain and swelling. If these symptoms persist, contact your physician.

More moderate sprains may need to be immobilized with a wrist splint for at least 1 week. It is important to keep your wrist in the splint and listen to your physician's orders to avoid further damage. Your physician may also request that you perform some stretching exercises to gradually regain full movement in the wrist.

## SURGICAL PROCEDURES & TREATMENTS

In the most severe cases, wrist sprains may need surgery. Your Florida
Orthopaedic Institute physician will talk through the options with you regarding surgical procedures. For a fully torn ligament the surgical procedure involves connecting the ligament back to the bone that it tore away from during the injury.

Post-surgery rehabilitation exercises are gradually introduced to strengthen the wrist and improve mobility. The expected healing time from surgery is anywhere from 6-8 weeks, although this period varies by individual. Full recovery of the wrist's movement depends on the severity of the sprain but can take several months.

#### **NEXT STEPS**

If you have pain in your wrist, call Florida Orthopaedic Institute to schedule an appointment for an evaluation. All Florida Orthopaedic Institute surgeons are fellowship trained, adding extra expertise in their specialty. They will discuss all your treatment and repair options.



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