

A sprain is a partial injury to a ligament. Ligaments form the connections between the different bones in the wrist (Figure 1). Ligament sprains range from mild stretches to partial tears.

There are many ligaments in the wrist that can be sprained. Two of the common ones are the scapholunate ligament, in the middle of the wrist between the scaphoid and lunate bones (Figure 2), and the TFCC (triangular fibrocartilage complex) on the outside of the wrist. Sometimes, wrist sprains can pull off a tiny piece of bone. This is called an avulsion fracture.

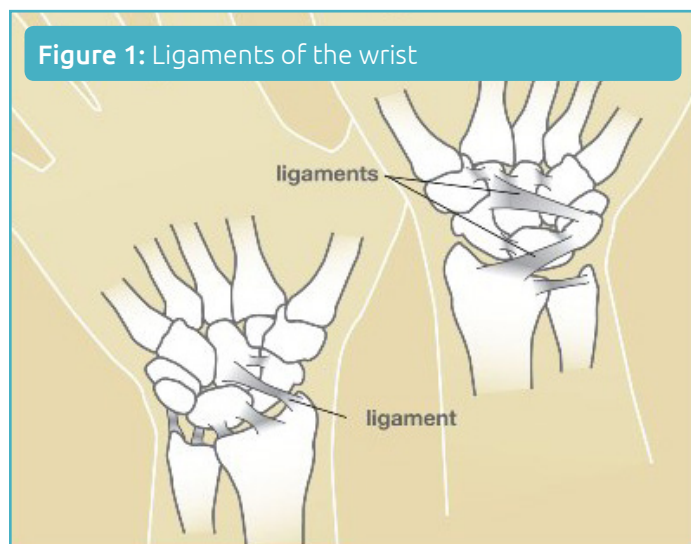


Figure 1: Ligaments of the wrist

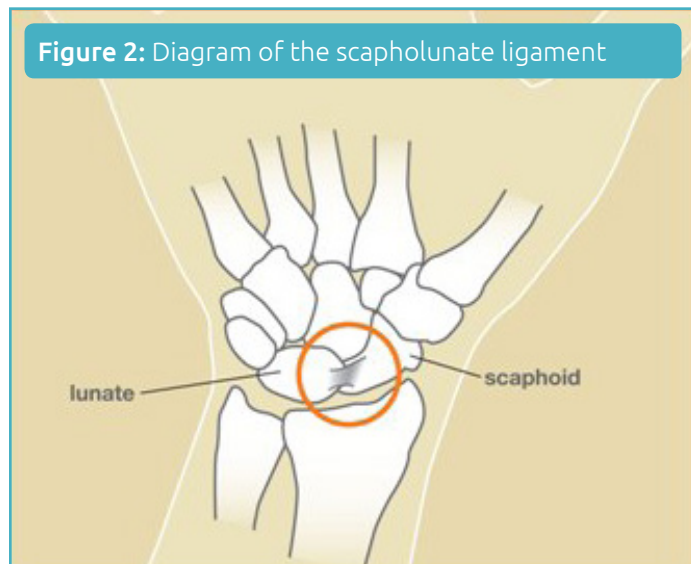


Figure 2: Diagram of the scapholunate ligament

Causes

Wrist sprains are usually caused by falls or sudden twisting motions. The wrist is usually bent backwards or into an abnormal position.

Signs and Symptoms

A sprained wrist is often swollen and painful, especially

with motion. There may be bruising. Pain and swelling can develop over several days and may last anywhere from a few days to six weeks.

Diagnosis

Your doctor will examine your wrist to see where it hurts and to check how it moves. X-rays are often taken. The purpose of the exam and X-rays is to make sure there are no broken bones, dislocated joints, or signs of a full ligament tear (Figure 3). In some cases, if a wrist sprain does not improve after a period of waiting, your doctor may order additional imaging to see if there are injuries that cannot be seen on X-ray or during a physical exam.



Figure 3: X-ray showing gap between scaphoid and lunate from ligament rupture (right) and normal x-ray of opposite wrist (left)

Treatment

Wrist sprains are usually treated without surgery. Ice and a splint or gentle wrap may be helpful for the first few days after a wrist sprain. Treatment typically involves resting the injured wrist and wearing a splint as needed until symptoms improve, which may take up to 6 weeks. Prescription pain medications are not usually recommended. If symptoms do not improve after a reasonable period of time, additional imaging may be ordered to look for a more serious injury.

Associated Injuries

Sometimes, a small piece of bone can be pulled off one of the wrist bones, called an avulsion. These small fractures frequently do not require surgery and may heal on their own.

Prognosis

Wrist sprains typically heal well, with minimal or no long-term symptoms. Healing can often take several weeks, but recovery is usually excellent.