



Scaphoid fracture

A fall on an outstretched arm can result in a fracture of the scaphoid (navicular) bone in the wrist. This small bone is one of 8 carpal bones in the wrist. The scaphoid

sits below the thumb, and is shaped like a kidney bean.

Because there is limited blood supply to this area, a fracture in the centre of the bone can actually sever blood flow to the inside section of the bone. This can lead to serious long-term problems. When a scaphoid fracture fails to heal, the patient may initially get better for a while until the pieces of broken bone, which are loose inside the wrist joint, cause a deterioration of the wrist joint called traumatic arthritis. In this condition, the joint becomes painful and stiff, decreases grip strength and limits a person's ability to carry out even moderate activities. For this reason, scaphoid fractures need immediate diagnosis and treatment. Scaphoid fractures may heal very slowly or may not heal at all.

Symptoms

Unless the wrist is deformed, it might not be obvious that the scaphoid bone is broken. Sometimes, it might seem to be just a sprained wrist.

It is important to see a doctor if there is pain on the thumb side of the wrist that starts after a fall or accident and does not go away within a few days.

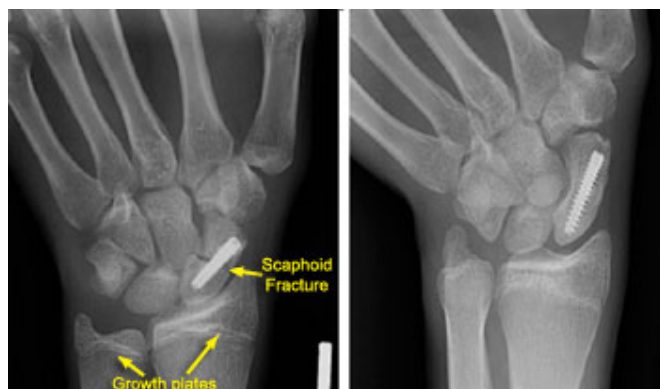
Scaphoid fractures usually cause pain in the base of the thumb, with swelling in the same area. The pain may be severe when the thumb or wrist is moved or the hand grips anything.

Many patients are diagnosed with a wrist sprain, when they actually have a fracture. Diagnosis is difficult because the fracture often doesn't appear on x-rays until weeks later, after healing has begun.

Treatment

Treatment depends on the type of fracture, the presence of any associated ligament damage, and the severity of the ligament damage. The location of the fracture in the bone is also important since fractures of some parts of the bone statistically heal better in a cast than others. If it is a simple, non-displaced fracture, orthopaedists usually treat the injury with cast immobilization to see if the fracture heals in a normal fashion. Repeat x-rays are taken over several weeks or months, and the physician can watch for appropriate healing, which can take 10 to 12 weeks. If it does not heal, surgery can be considered.

If the scaphoid fracture is displaced, the risk of non-union is higher, and your physician may recommend initial surgery to reposition the bones. Also, if the fracture does not heal with cast treatment (immobilization), surgery will be recommended. This type of surgery involves pinning the bone in place with screws (below). Sometimes a bone graft may also be used. A cast is used to immobilize the scaphoid



bone after surgery.

The X-ray on the left shows a scaphoid fracture treated with a screw. The screw was applied during surgery. The two fragments are held in alignment by the screw. The X-ray on the right was taken 4 months after surgery. The fracture of the scaphoid is healed.

Rehab

Rehabilitation is an important part of healing due to the long immobilization time needed to treat most scaphoid fractures. Range-of-motion exercises for the wrist can be started after immobilization, followed by strengthening exercises for the wrist flexors and extensors. Supination, pronation, and grip exercises should also be added. WSC physios can help with this.