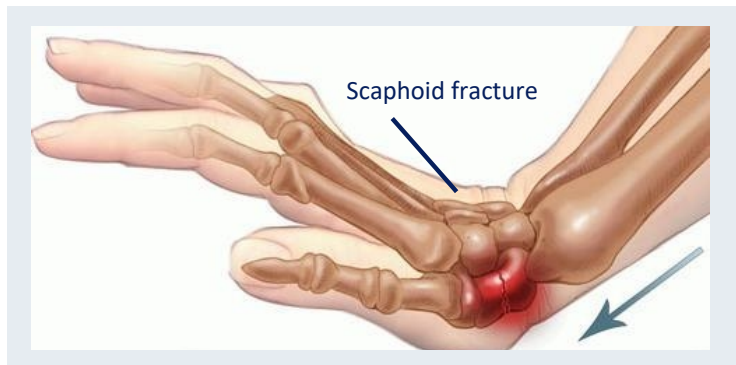


## Scaphoid Fracture

### WHAT IS A SCAPHOID FRACTURE AND HOW DOES IT HAPPEN?

The scaphoid is one of eight carpal bones in the wrist. It is a commonly fractured bone in the wrist, accounting for over 85% of all sport-related carpal bone fractures. Scaphoid fracture is particularly common in sports involving high impact injuries to the wrist. Young males and people between 10 and 19 years of age are at highest risk for scaphoid fracture. When an injury occurs, pain (with or without swelling or bruising at the “thumb side” of the wrist) can be noticed within days. Because there is no visible deformity and no difficulty with motion, many people with this injury assume that it is a wrist sprain.



### HOW ARE SCAPHOID FRACTURES TREATED?

Scaphoid fractures are usually diagnosed by an x-ray of the wrist; however, x-rays do not always show scaphoid fractures. A break in the bone that cannot be seen on x-ray at the time, is called an “occult” fracture. If there is tenderness directly over the scaphoid bone, the wrist may be placed in a cast as a precaution and a repeat x-ray taken at 10-14 days post injury. Sometimes a CT or MRI scan may be required to diagnose the fracture.

If the fracture is non-displaced (bone has not moved out of place), it can usually be successfully treated with a cast. Although the fracture may heal in as little as six weeks, it is not uncommon for patients to have a cast in place for up to twelve weeks.

#### Hand Therapy

Hand therapy treatment may include

- Applying a splint or cast to take care of your healing bone while allowing you to use your hand.
- Reducing your swelling and helping to keep it down.
- Scar management that helps soften your scar (if you had an open reduction).
- An exercise programme that gets your wrist, finger and thumb movement back and improves your coordination and strength.
- Advice about safely returning to hobbies and house or garden tasks, safely returning to sport and work, and getting the right balance between activities and rest to allow you to recover.

Scaphoid fracture on MRI



#### Surgery

The scaphoid does not have a robust blood supply, especially at one end of the bone. This means in some cases the break does not heal properly. If the fracture is displaced (bone ends have shifted out of their normal position), or if the fracture does not unite (join back together) after 6 weeks in a cast, surgery is the best option. This involves the insertion of a screw or pins (and sometimes a bone graft) to hold the fracture together. The goal of surgery is to realign and stabilise the fracture, giving it a better chance to heal.



### WHAT CAN I EXPECT FROM MY REHABILITATION?

Hand therapy is started after surgery or on removal of your cast. It is normal for your wrist to be stiff and to have some weakness and muscle wasting of the forearm muscles because they have not been used for normal activity for some weeks. After surgery there can be scar sensitivity, stiffness, and weakness. The goal of hand therapy is to restore movement and commence gradual loading until near-normal day-to-day function is achieved.

Treatment may include heat, stretches, graduated strengthening, advice, education, and functional loading. During this time, unless advanced activity is approved by your therapist, the following activities should be avoided: Lifting, carrying, pushing, or pulling, throwing with the injured arm, contact sports, limbing ladders or trees, activities with a risk of falling, using heavy or vibratory machinery, and smoking (which will delay or limit fracture healing).

Depending on your injury and how it was treated, it can take many months until you return to all normal activity. Your hand therapist will discuss realistic rehabilitation time frames with you.



## Scaphoid Fracture

### WHILE YOUR WRIST IS IN A CAST

When you are in a cast it is important to keep your fingers, elbow and shoulder moving but not overuse your arm which could slow down your bone healing. Controlling swelling and pain is also very important and your hand therapist will give you appropriate exercises and advice about how to manage everyday life with a cast on your wrist.

### WHEN YOUR CAST COMES OFF

You can expect your wrist to be stiff, weak and sore when your cast comes off. Your hand therapist may give you a removable splint to make things a bit easier while you recover your movement and strength.

#### Do

- Wear your splint
- Keep your hand elevated if there is swelling in your wrist or hand, this will help it heal.
- Follow your hand therapists' instructions about exercises and using your hand.
- Use heat and massage before exercise to make it more comfortable.

#### Do Not

- Remove your splint without guidance from your hand therapist.

### WHAT SHOULD I LOOK OUT FOR?

If you have any of these symptoms it is important to tell your hand therapist straight away

- Pins and needles.
- Numbness or weird sensations.
- Swelling that doesn't go down.
- Pain that does not settle when you take medicines pain relief.
- Inability to move your wrist, fingers or thumb.

### WHAT WILL HAPPEN IF I DO NOT HAVE TREATMENT?

If a scaphoid fracture is missed or not treated properly it may take even longer to heal or go on to require surgery. If the fracture is not treated, you can develop severe complications and arthritis in your wrist over time which are often hard to fix.

### CONTACT DETAILS AND REFERENCES

Your hand therapist is

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Merivale Hand Clinic (03) 3559775

<http://www.midwestorthopediccenter.com/handout>

<http://orthoinfo.aaos.org/topic.cfm?topic=a00039>

<http://www.eatonhand.com/hw/hw020.htm>

[http://www.steinergraphics.com/surgical/006\\_17.2.html](http://www.steinergraphics.com/surgical/006_17.2.html)

<http://www.trimedortho.com>