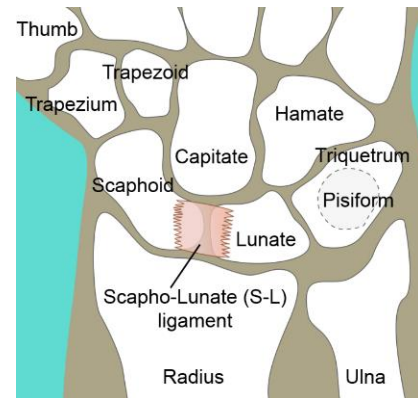




What is a Scapholunate Ligament Injury?

The scapho-lunate ligament is one of the most important wrist ligaments. It is in the centre of the wrist and attaches the scaphoid bone to the lunate bone. The ligament is shaped like a "C" curving from the back of the wrist to the underside. The most mechanically important part is called the **dorsal** part. There are also dorsal intercarpal ligaments which help hold the small bones of the wrist together.

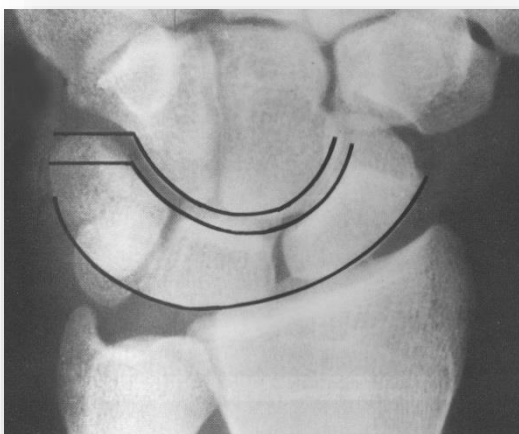


How is the Scapholunate Ligament Injured?

A complete tear or "rupture" of the scapho-lunate ligament requires a significant force. It often occurs during contact sports and bicycle or motor-cycle accidents. There is usually marked swelling, weakness and pain. The injured person often feels that their wrist may be broken but the X-rays can initially be normal. A wrist "sprain" may be the first diagnosis and it may be some months before further investigation (repeat X-rays or MRI scan) reveals a scapho-lunate ligament injury.

How is it Diagnosed?

The diagnosis is suggested by a history of significant trauma consistent with a scapho-lunate ligament injury. The Kirk Watson test may be helpful in confirming the diagnosis. If the scapholunate ligament is completely torn, the scaphoid can be partly dislocated (subluxed) and an uncomfortable "clunk" occur with this manoeuvre (above). X-rays are often normal initially but, with time, the scaphoid and lunate bone separate, and the wrist become unstable. This is called carpal instability and will slowly result in arthritis due to abnormal wear and tear of the joint lining.



Xrays

A. Normal Wrist



B. Scapho-Lunate Ligament Rupture

If the x-rays are normal but the examination suggests carpal instability, an MRI scan is used to confirm the injury but is still not 100% accurate.



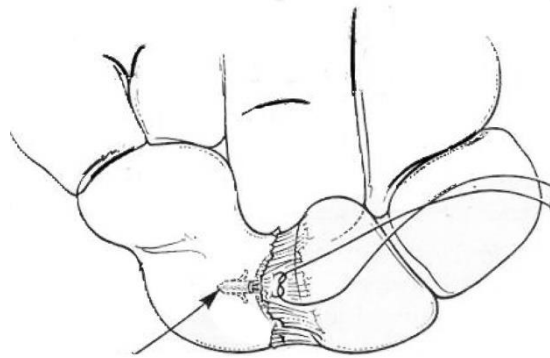
How are Scapho-Lunate Ligament Injuries Treated?

Partial injuries

A partial scapho-lunate ligament injury may be managed with splinting & physiotherapy. A complete scapho-lunate ligament injury will not heal by itself and left untreated, can lead to ongoing pain, weakness & arthritis.

Complete injuries

A complete rupture will usually be treated with surgery to repair or reconstruct the ligament depending on how recent the injury was sustained. If the injury is relatively recent, a repair with anchors that reattach the ligament is performed. Wires are also left in the wrist for 8 weeks to hold the bones in place while the ligament heals. The operation usually takes 2.5 hours under general anaesthetic and requires an overnight stay in hospital.



Old injuries

Scapho-lunate ligament injuries can often be identified many years after the injury when a patient has a painful wrist after a fall. In this situation there is already arthritis and repairing or reconstructing the ligament is not appropriate. It is the arthritis that requires treatment in this late situation. This may involve splinting, anti-inflammatories and physiotherapy.

What is the Recovery?

A complete rupture of the scapho-lunate ligament is a major injury to the wrist and even with the best medical care, there will be some long-term stiffness and loss of grip strength. Maximal recovery will take up to 12 months and there is still a possibility of arthritis developing over time.

2 Weeks: Review for removal of temporary half cast & full water-proof cast applied by hand therapist.

2 months: Day surgery for removal of wires & wrist manipulation (if wires have been required) and same day visit to hand therapist to start exercises and have a removable splint fitted.

2-4 months: Gradual upgrade exercises and strengthening. No lifting greater than 2kg, no push ups.

4-6 months: Gradual return to normal activities.

12 months: Maximum recovery.

What are the Risks?

Rupture of the scapho-lunate ligament is a major injury and recovery to normal cannot be expected. Surgery aims to return function to as normal as possible but is expected that movement and grip strength will be permanently reduced by approximately 25%.

It is still unknown whether surgery will prevent arthritis. It does usually improve pain and function. If the ligament is not repaired, the wrist joint remains unstable, and this is known to damage the joint lining over time. There can also be significant damage to the joint cartilage (lining) at the time of the injury which leads to arthritis developing.

Other risks include breakage of temporary wires if the wrist is not immobilised, infection, failure of the ligament repair from injury or overuse, loss of strength and nerve injury. Carpal tunnel syndrome is very common when there has been a major wrist injury and surgery to release the carpal tunnel may be required.