MELBOURNE SHOULDER & ELBOW CENTRE

Mr Harry Clitherow
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Orthopaedic Surgeon
Upper Limb Specialist

Mr Clitherow specialises in
- Shoulder problems
- Elbow conditions
- Wrist problems
- Hand problems
- Upper Limb Nerve problems

TAC and Workcover referrals accepted
Urgent appointments available

Consulting at
- Melbourne Shoulder and Elbow Centre Brighton
- St John of God Hospital Berwick

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Scaphoid Fracture

Case
A 23 year old male presents to you 2 days after falling over whilst snowboarding. His wrist is painful to move and his x-ray is reported as showing a fracture through the waist of the scaphoid.

Scaphoid fractures are usually the result of a fall on the outstretched hand. The scaphoid bone plays an important role allowing the wrist to move in a normal way. Despite its importance, the blood supply to the scaphoid is fairly tenuous. This means the bone is at relatively high risk non-union following a fracture. If the scaphoid bone heals in an abnormal position (mal-union) or fails to heal at all, then the normal carpal mechanics are disrupted. This leads to wrist pain and reduced movement in the short term, and long term this can lead to wrist arthritis (scaphoid non-union advanced collapse or “SNAC wrist)”.

Presentation
- There is almost always a history of a fall onto the outstretched hand.
- Occasionally this fall may have been some time ago and ignored as a soft tissue injury. In this case the patient may have more nagging ache or reduced wrist function rather than significant pain.
- The wrist is sore and tender to palpate over the radial (thumb) side. This is most pronounced when palpating the anatomical snuffbox or the scaphoid tubercule.

Imaging
Plain X ray of the scaphoid
- This is a series of 5 views that show the scaphoid in various angles. Fractures may only be visible on one of the views.

MRI scaphoid
- This is most useful when the diagnosis is in doubt

CT Scaphoid
- This is most useful to determine how to best treat an established fracture

Treatment
If the patient has pain over the scaphoid but has normal x rays, they should be placed in a cast or splint and then re-x-rayed 2 weeks later to confirm if a fracture is present or not.
- Alternatively, an MRI scan will show any fracture that is present (best if performed within 2 weeks of injury).
- A splint is still required until the MRI has ruled out a fracture.

Undisplaced fractures of the waist, the distal pole or the tubercule can be managed in a cast. This must be worn until the fracture has united. For waist fractures this can be 8 weeks or more.

Surgery
The scaphoid is repaired with either a screw or a plate. In cases with significant displacement or non-union, a bone graft is usually required. This is frequently taken from the patient’s iliac crest.

When to refer to a Hand surgeon
- Any fracture involving the proximal third of the scaphoid (high chance of non -union)
- Any fracture that has visible displacement
- Any fracture that has presented more than a week following injury AND has not been splinted or immobilised in that time
- Waist fractures in active or high demand patients that may benefit from an earlier return to activities.
- Non unions, malunions and secondary arthritis