

Hand Therapy Guide (XI)



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This is a quick reference to guide you on referrals for common hand injuries and conditions in general practice. The theme for this issue is **Wrist Instability**.

Wrist Instability

◆ Mechanism of Injury

Wrist instability may be caused by a specific incident such as a fall on outstretched hand or could be accumulative and gradually occur over time. Common injuries of the wrist that may lead to wrist instability include carpal bone fractures, scapho-lunate ligament injuries, luno-triquetral ligament injuries and midcarpal ligament injuries.

The wrist requires good bony alignment, ligament stability, a strong muscular support system and effective proprioception system to maintain a stable wrist joint.

◆ Symptoms

- Painful and/or swollen wrist
- Clunk with certain wrist movements
- Difficulty weight bearing through the wrist, particularly in wrist extension
- Decreased range of motion
- Decreased grip strength

◆ Diagnosis

A diagnosis can be difficult to confirm and requires a thorough physical examination including range of motion and strength assessments, palpation, provocative wrist assessments, and observing range of motion for a clunk. This assessment can be completed by a hand therapist and doctor.

An x-ray can be beneficial to review bony alignment, and to check for any abnormalities such as widened gaps between carpal bones and dorsal or volar intercalated segment instability (DIS/VISI).

A clenched fist AP view can be used to evaluate the widening scapho-lunate gap and is performed bilaterally with both hands in a clenched fist often holding a pencil. The clenching brings the capitate proximally and emphasises any widening of the scapho-lunate interval. Additional imaging such as an MRI may also be required.



Stress AP view using clenched fist pencil grip to assess the scapho-lunate gap
Photo source: the Journal of Hand Surgery

◆ Referral

A referral should be made as soon as symptoms appear or are diagnosed. If left untreated symptoms can worsen over time leading to increased pain and further injury.

◆ Treatment

Treatment options can vary greatly depending on the cause of wrist instability and may involve the following:

- Immobilisation splinting to allow structures to heal and decrease pain
- Functional splinting or taping to support injured ligaments and restrict range of motion
- Pain and oedema management
- An individualised exercise program to improve wrist function including strength and stability training such as proprioceptive rehabilitation
- Education to prevent further aggravation of the injury

◆ Stay Tuned!

Next issue will be about Rheumatoid Arthritis.