



Netcare Waterfall
City Hospital



GET A GRIP ON HAND PAIN

Five common causes for hand and wrist pain

By Dr. Ashley Naidoo

Dr Ashley Naidoo (FC Orth - SA, MBCHB – UKZN, Mmed Orth - Wits) is an orthopaedic surgeon at Netcare Waterfall City Hospital - with a special interest in hand and upper limb surgery. He is also co-founder of The Gauteng Orthopaedic Institute.



Dr Ashley Naidoo

These conditions can occur in isolation or as components of an osteoarthritic* hand.

DE QUERVAIN'S TENOSYNOVITIS

This is a painful inflammatory condition around the wrist tendons on the thumb side of your wrist. It is common to new mothers -related to some of the awkward positions they may hold their baby in. Anatomically the tendons involved are of the first compartment namely, the Abductor Pollicis Longus (extrinsic muscle of the hand) and Extensor Pollicis Brevus (skeletal muscle on the dorsal side of the forearm). Inflammation around these tendons causes scarring and thickening of tissues

Hands are an integral tool in the way we manipulate our environment.

Therefore, pain in your hands can hamper work or productivity and, essentially, rob you of being able to partake in valued recreational activities.

Common causes of a painful hand or wrist include:

- De Quervain's tenosynovitis
- Carpal Tunnel Syndrome
- Trigger fingers
- Inflammatory (rheumatoid arthritis and osteoarthritis)
- Ganglion cysts

enveloping them, leading to pain.

Pain can be gradual or sudden, and is exacerbated by making a fist and turning your wrist.

Initial diagnosis is clinically made and can be managed conservatively

by splinting the wrist, prescribing anti-inflammatories and, in selected cases, by a corticosteroid injection. Surgical release of these tendons is considered when conservative therapy fails or, in selected advanced cases, from the outset. This can be performed as a day case.



Picture Reference: www.schreibermd.com



Picture reference: gponline.com

CARPAL TUNNEL SYNDROME

This is the most common entrapment condition of nerves of an upper limb. The carpal tunnel houses not only the flexor tendons of the hand, but also the median nerve - an integral nerve for hand sensation and power for the thumb and index fingers. An extrinsic compression, from masses or thickened overlying tissues, or volume reduction within the tunnel - from swelling or trauma, can exacerbate symptoms. These symptoms include pain; numbness and weakness of the thumb, index and middle fingers; as well as objects falling from the affected hand.

Conservative therapy entails night splinting, hand therapy (gliding exercises) and anti-inflammatories. If there is objective nerve dysfunction shown in nerve conduction studies and evidence of muscle wasting, a surgical release of the carpal tunnel is advised and can be performed open or arthroscopically, as a day case.



Picture Reference: orshospital.rs

TRIGGER FINGER

Trigger finger or 'stenosing tenosynovitis' is an inflammatory condition of the flexor tendons of the hand, or the sheath that covers them. As a result of irritation or inflammation, a nodule forms within the tendon, or the sheath covering it thickens and fibroses. Either of these eventualities lead to catching of the digit in a flexed position which can reduce spontaneously or lock. Pain can occur during flexing of the digit or when you attempt to straighten it. Risk factors include diabetes mellitus, inflammatory arthritis and gout.

Rest, anti-inflammatories, splinting and, in some cases, corticosteroid injections into the nodules can relieve symptoms. Surgical release of a triggering digit is indicated where conservative options have failed, or a locked digit results, and involves surgical division as a day surgery.



Picture Reference: plasticandhandsurgery.com.au

ARTHRITIS OF THE HAND

One of the leading causes of hand pain is attributed to arthritis which commonly occurs at the base of the thumb (first carpometacarpal joint) and the distal finger joints. The two main types are osteoarthritis and inflammatory arthritis i.e. rheumatoid arthritis.

Osteoarthritis of hand joints can occur as part of a systemic primary disease or can be secondary to trauma or infection which destroys the joints' cartilage lining. This leads to pain when gripping objects and, in some cases, to deformity.

Inflammatory arthritis is part of a systemic auto-immune condition that results in joint destruction and gross deformities, if left untreated. Pain is associated with morning stiffness and usually affects small joints of the hands and feet. These usually require co-management with rheumatologists.

Management of hand arthritis entails anti-inflammatories, hand therapy, splinting and, in some cases, a corticosteroid injection. Surgical procedures, namely joint fusions (arthrodesis) or replacement (arthroplasty), are tailored according to the patient's functional demands.

*A type of joint disease that results from breakdown of joint cartilage and underlying bone.

GANGLION CYSTS

Occasionally painful bumps over the wrist or palm arise from a tendon sheath or joint, and point to an underlying irritation, which may be traumatic or inflammatory. These cystic structures contain a viscous gel to jelly-like substance and can resolve spontaneously or recur. Pain can arise from trauma and bleeding into the cyst or local mass effect. These cysts are diagnosed clinically by



Picture Reference: www.schreibermd.com

trans-illumination, in most cases, but an ultrasound can be used to confirm their presence in smaller or less accessible sites.

Management involves observation, aspiration of the cysts and, in some cases, surgical excision. The rate of recurrence is lowest with surgical excision.