Orthopaedic and Sports Injuries Services "OASIS"

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Examination of Hand & Wrist My Way

I enjoy the stimulus of teaching I believe it benefits the tutor as well as the student I consider it an integral and vital part of my own continuing education.

There are numerous ways to examine the Hand & Wrist

The following method is my way of doing a systematic, thorough but efficient Examination, I have tried to keep it simple so it can be reproduced without a hitch. I do not claim it is a complete process but certainly one that will give a lot of information.

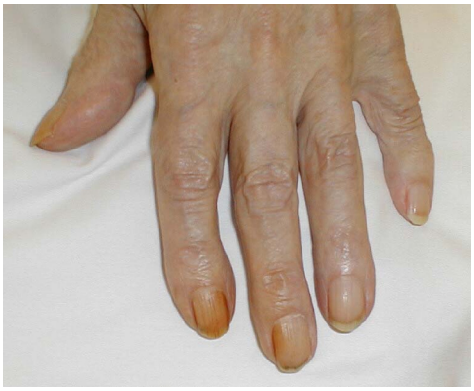
Introduction
As always, wash your hands, explain the examination and gain informed consent. Always let the patient know what you are about to do, show them what you want them to do repeat instructions and respect their individuality.

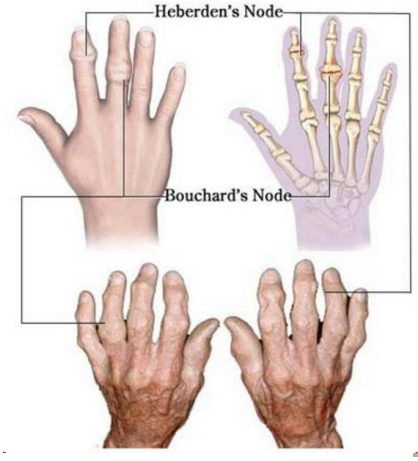
Follow the old age algorithm, Look, Feel Move.

The hands are quite difficult to examine as there are a number of signs which can be detected from them. Try and remember each of these and also some of the causes behind the signs

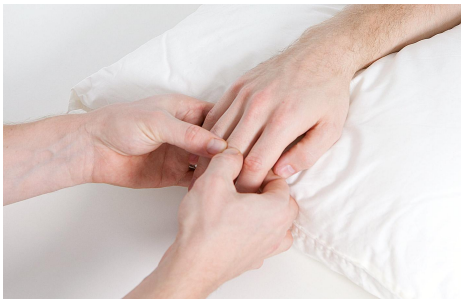
Firstly place the patient's hands on a pillow or examination couch sit facing the patient under adequate light ensuring the patient is comfortable

Next have a look at the hands. In particular look for swellings, deformities, muscle wasting, scars - particularly carpal tunnel release scars, skin changes, rashes, nail pitting or onycholysis, nail fold vasculitis, palmar erythema. If there are joint swellings note which joints are involved and whether the changes are symmetrical or not.



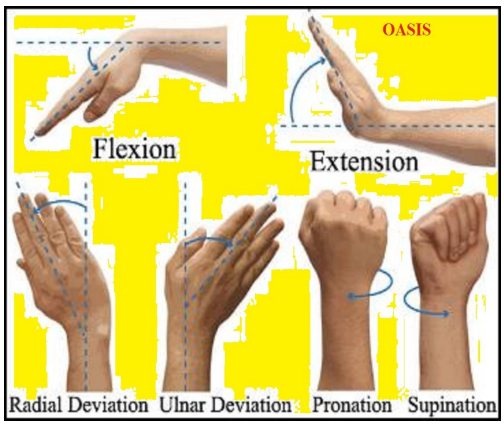


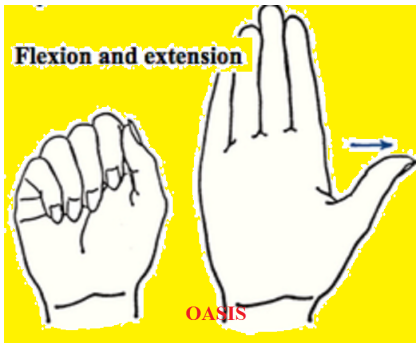
Next you need to feel the hands. This should look as smooth as possible so try and develop your own technique. A good one is to start proximally and work towards the fingers. So, start by feeling the radial pulses and the wrist joints with the two thumbs on the extensor surface and the index fingers on the flexor surface. Then feel the muscle bulk in the thenar and hypothenar eminences. In the palms, feel for any tendon thickening and assess the sensation over the relevant areas supplied by the radial, ulnar and median nerves. As with all other joints, you should assess the temperature over the joint areas and compare these with the temperature of the forearm. Next you should squeeze over the row of metacarpophalangeal joints whilst watching the patient's face for any discomfort. You should then move onto any MCP joints which are noticeably swollen. Palpate these bimanually with your two thumbs on the dorsum and two index fingers on the palm. Move onto the interphalangeal joints and again palpate any which are swollen. This palpation is done with one of the thumbs on the top and the other on one of the sides. The index fingers go on the vacant sides of the joint.

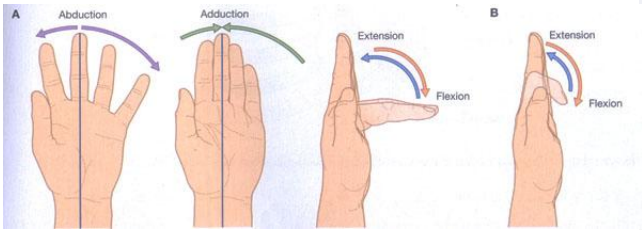


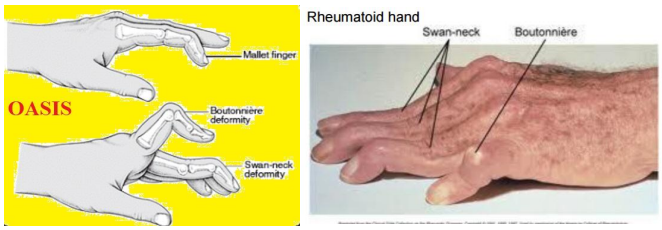
At this point you should also look at the underside of the elbows to check for any psoriatic plaques as these could suggest the presence of psoriatic arthritis and for any rheumatoid nodules.

The movements which should be assessed are wrist flexion and extension, finger extension and flexion as well as abduction. You should also test thumb abduction and opposition.

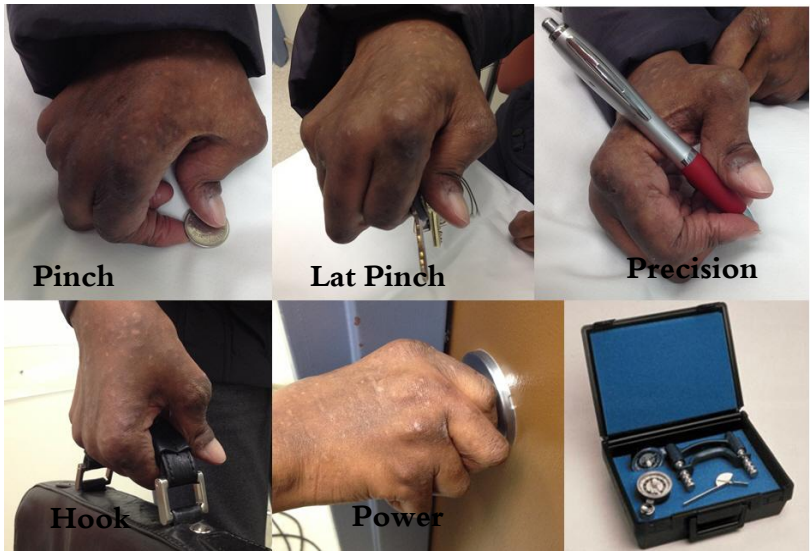








Before one performs special and specific tests you should perform a functional assessment of the patient. This involves forming a power grip around your middle and index fingers, a pincer grip against your index finger and asking your patient to pick up a small object such as a coin.



Carpal Tunnel Syndrome.

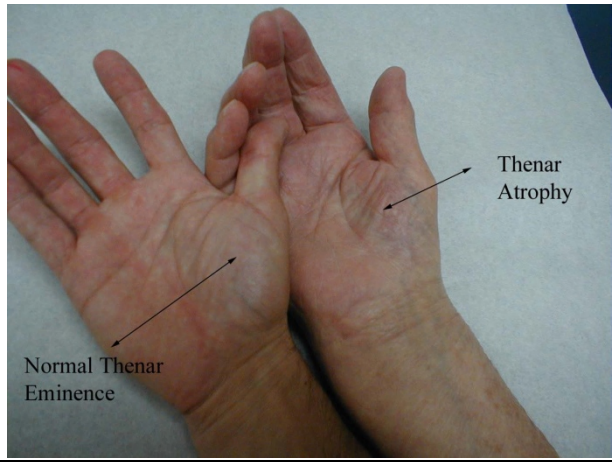
One special test which you may like to employ is Phalen's test. Forced flexion of the wrist, either against the other hand or by the examiner for 60 seconds will recreate the symptoms of carpal tunnel syndrome. Reversing it will be reverse phallen, the most sensitive of all is the direct compression test and tinnel. In late cases sensation may be altered and wasting seen.

Phelan Test

Reverse Phelan

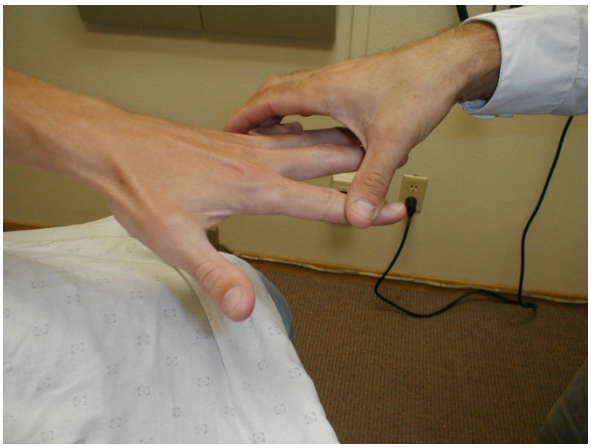
Tinnel Sign

Direct Compression Test



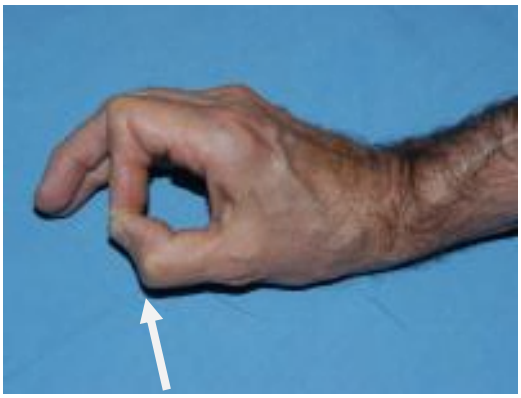
Ulnar Claw Hand

There is the obvious claw hand in high lesion or in the low lesion there is altered sensation weak intrinsic . Froment's test may also be performed to check Ulnar nerve function by asking the patient to hold a piece of paper between their thumb and index finger (hence checking adductor pollicis). In a patient with Ulnar nerve palsy the interphalangeal joint of the thumb will flex to compensate



Weak Intrinsics

Froment's Sign



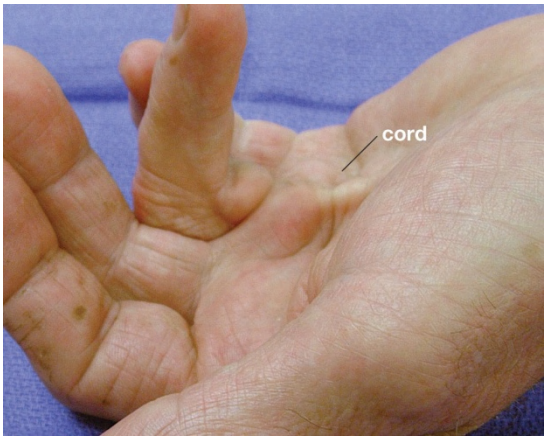
De Quervain's tenosynovitis

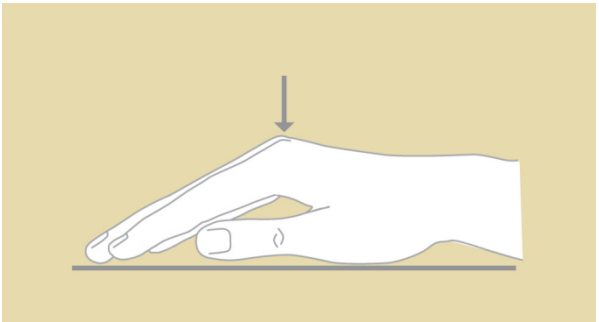
It is diagnosed based on the typical appearance, location of pain, and tenderness of the affected wrist. De Quervain's tenosynovitis is usually associated with pain when the thumb is folded across the palm and the fingers are flexed over the thumb as the hand is pulled away from the involved wrist area. (This is referred to as the Finkelstein maneuver.)

Dupuytren's disease

It is a thickening and shrinking of the layer of flesh just under the skin of the palm. It can cause lumps or dimples in the skin of the palm, and can draw the fingers down into a bent position. It is named after a surgeon who wrote about its treatment.

It has various presentation involving MCP joint and PIP joint with various Diathesis with ectopic foci. Need for surgery arises when cannot put palm flat on table.





Scaphoid Pain

Tender at anatomical snuff box, grind test is present as is scaphoid clunk test.

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