

## Hand Examination

### Before You Start:

**Position:** sitting, patient's hands on a pillow.

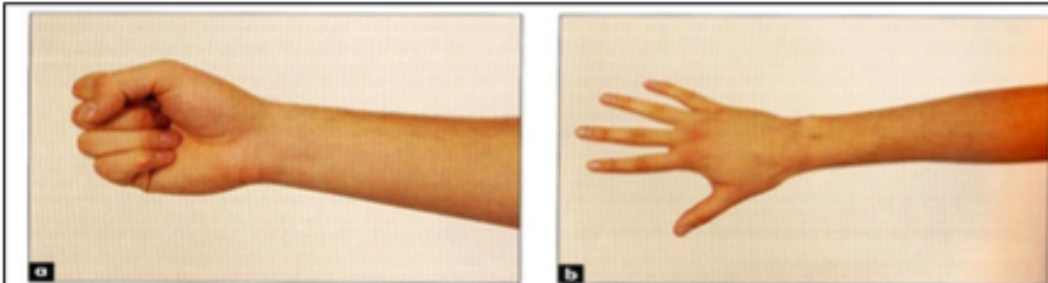
**Exposure:** above the elbow.

Look	
<b>Wrist and Forearm</b>	<p><b>In Skin Look for: 3SARE</b></p> <ul style="list-style-type: none"> <li>• Swellings, Scars, Scleroderma (T Tightness) , Atrophy , Rashes and Erythema.</li> </ul> <p><b>In the Wrist look for:</b></p> <ul style="list-style-type: none"> <li>• Swelling, Deformity, ulnar and Styloid prominence.</li> </ul>
<b>Dorsal Aspect of the Hand</b>	<p><b>Look for:</b></p> <ul style="list-style-type: none"> <li>• Any skin abnormality, swelling, Deformities.</li> <li>• The presence of Ulnar Deviation and volar subluxation of the fingers.</li> <li>• Characteristic deformities of Rheumatoid arthritis: Swan Neck, Boutonniere Deformity of the fingers and Z Deformity of the thumb.</li> <li>• Characteristic Changes of Osteoarthritis: Heberden's Nodes , Bouchard's Nodes and Bunions.</li> <li>• Sausage shape appearance of the phalanges. ( Psoriatic atrophy or Reactive arthritis)</li> <li>• Jaccoud's arthropathy ( SLE)</li> <li>• Telescoping fingers (arthritis mutilans)</li> <li>• Resolution of finger tips (tapering fingers)</li> </ul> <p><b>Nails</b></p> <ul style="list-style-type: none"> <li>• Pitting nails, ridging, onycholysis, hyperkeratosis: psoriasis</li> <li>• Discoloration: Raynaud's phenomenon</li> <li>• Digital infarction: scleroderma</li> <li>• Splinter hemorrhage: SLE or IE</li> </ul>
<b>Palmar Aspect of the Hand</b>	<p><b>Look for:</b></p> <p>Scars, Palmar erythema, Muscle wasting (thenar or hypothenar eminence), Depuytren's Contracture and Telangiectasia)</p>

Feel&Move	
<b>Wrist</b>	<ul style="list-style-type: none"> <li>• For synovitis(boggy swelling) and effusion.</li> <li>• Test for ulnar and radial deviation.</li> <li>• Note any Tenderness, limitation in movement or joint crepitus.</li> <li>• Palpate for ulnar styloid tenderness (Rheumatoid Arthritis) , Radial styloid tenderness (De Quervain’s tendenosynovitis) and Anatomical snuff box tenderness (1st carpometacarpal joint Arthritis)</li> </ul>
<b>Joints</b>	<ul style="list-style-type: none"> <li>• Palpate the Metacarpophalangeal joints for any pain or tenderness</li> <li>• Palpate Interphalangeal joints for tenderness, swelling or osteophytes (nodules).</li> <li>• Test for Palmar tendon crepitus.(your finger on patients palmar surface and the patients flexes and extends the Metacarpophalangeal Joints).</li> </ul>
<b>Movements</b>	<ul style="list-style-type: none"> <li>• Test movement, first the wrist &gt;&gt; Thumb &gt;&gt; Metacarpophalangeal&gt;&gt; Interphalangeal.</li> <li>• Active movement, note: Limitation, Instability, Joint crepitus.</li> </ul>
Function	
<b>Do the following</b>	<ul style="list-style-type: none"> <li>• Grip strength: give the patient a pen and ask him/her to squeeze it strongly.</li> <li>• Key grip: the key is held between the pulps of the thumb and forefinger.</li> <li>• Opposition strength.</li> <li>• Practical test: ask the patient to undo a button or write with a pen.</li> <li>• Measure the range of movements.</li> </ul>

<b>Special Tests</b>	
<b>Phalen's wrist flexion test</b>	<ul style="list-style-type: none"> <li>• if carpal tunnel syndrome is suspected, ask the patient to flex both wrists (dorsum on the dorsal, and the wrist should be in 90°) and the patient should wait for 30 second.</li> <li>• Paraesthesia will often be precipitated in the affected hand in the distribution of the median nerve if the carpal tunnel syndrome is present.</li> </ul>
<b>Phalen's Reverse wrist flexion test</b>	<ul style="list-style-type: none"> <li>• Same as the Above but reverse (tip of the fingers downward)</li> </ul>
<b>Tinel's test</b>	<ul style="list-style-type: none"> <li>• Tapping over the flexor retinaculum which lies at the proximal part of the palm.</li> <li>• The test will be positive if there is paraesthesia in the tip of the patient's fingers.</li> </ul>
<b>Feeling for the subcutaneous nodules</b>	<ul style="list-style-type: none"> <li>• near the elbow. These nodules are firm, non-tender and found over the olecranon or extensor surface.</li> </ul>
<b>Prayer sign</b>	<ul style="list-style-type: none"> <li>• ask the patient to bring the flat of the hands together</li> <li>• to recognize contractures in the Metacarpophalangeal and Interphalangeal joints.</li> </ul>
<b>Table top test</b>	<ul style="list-style-type: none"> <li>• ask the patient to flatten the palm against the surface of the table.</li> <li>• to recognize contractures in the Metacarpophalangeal joints.</li> </ul>

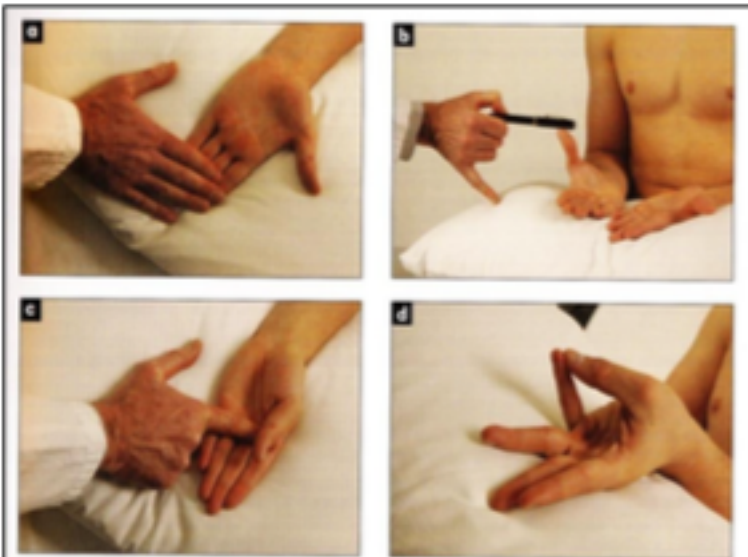
Special tests:



**Figure 9.19** Screening metacarpophalangeal and interphalangeal movements  
(a) Flexion, (b) Extension.



**Figure 9.20** Testing the superficial and profundus flexor tendons  
(a) Flexor profundus, (b) Flexor superficialis.



**Figure 9.18** Thumb movements  
(a) Extension, (b) Abduction, (c) Adduction, (d) Opposition.



**Figure 9.17** (a) Active wrist extension and (b) active wrist flexion