

COURSE NAME: Physiotherapy in ortho

COURSECODE : 746280

TITLE : Introduction to orthopedics

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DESIGNATION : Assistant professor

Orthopedic Assessment

Physiotherapy Perspective

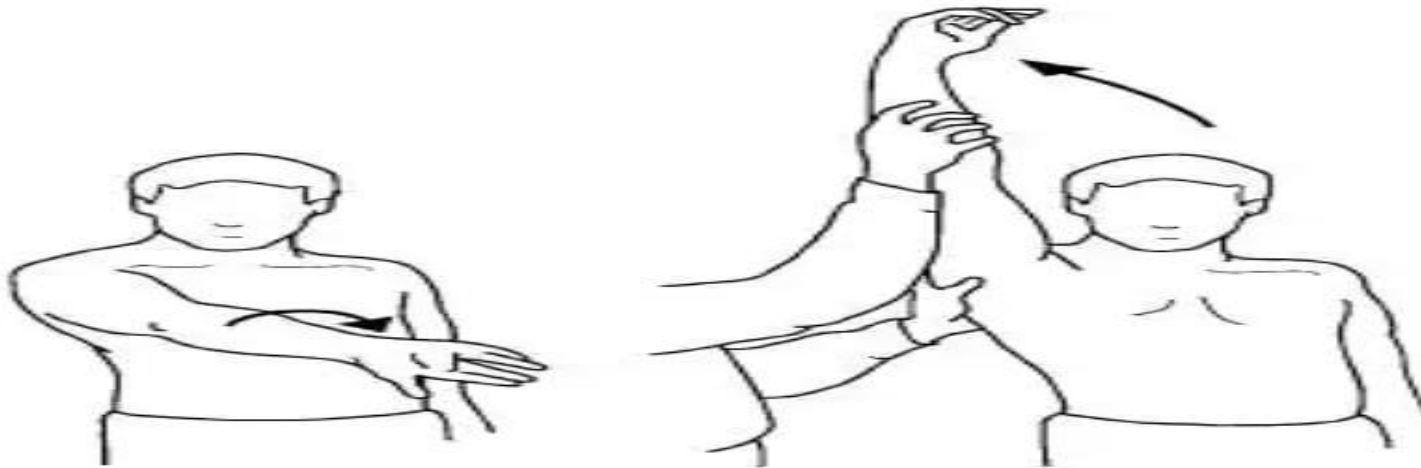


Shoulder – Neer's Test

Purpose: Detect shoulder impingement

Procedure: Passive forward flexion of shoulder

Positive: Pain indicates impingement.



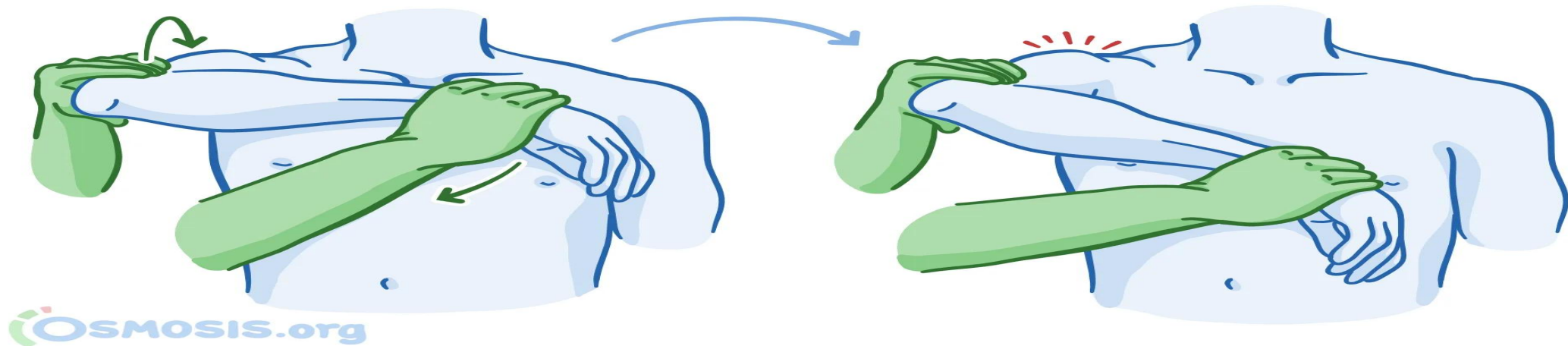
Shoulder – Hawkins-Kennedy Test

Purpose: Assess impingement of supraspinatus tendon

Procedure: Flex shoulder and elbow to 90°, then internally rotate.

Positive: Pain indicates impingement.

HAWKINS-KENNEDY TEST



Shoulder – Drop Arm Test

Purpose: Detect rotator cuff tear

Procedure: Arm abducted to 90°, patient lowers slowly.

Positive: Arm drops suddenly or pain.



Shoulder – Apprehension Test

Purpose: Assess anterior shoulder instability

Procedure: Arm abducted and externally rotated.

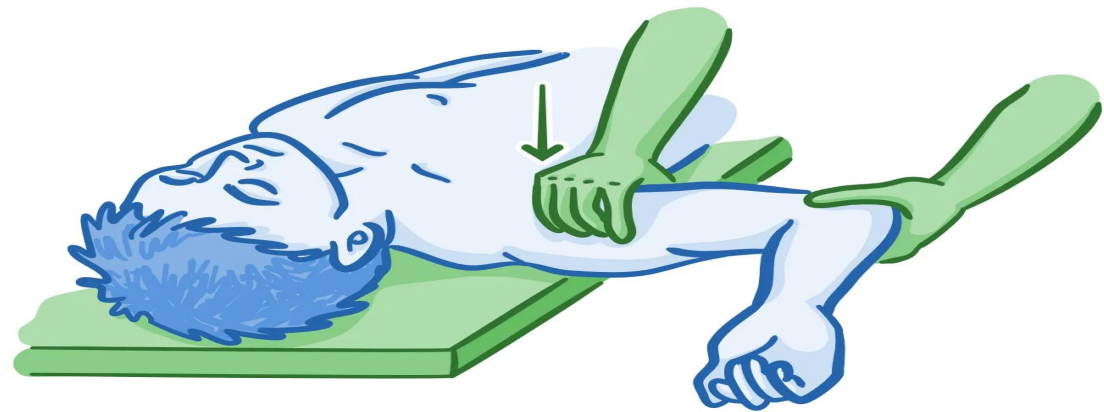
Positive: Apprehension or fear of dislocation.

SHOULDER APPREHENSION & RELOCATION TEST

APPREHENSION



RELOCATION



Elbow – Cozen's Test

Purpose: Lateral epicondylitis

Procedure: Resist wrist extension while elbow extended.

Positive: Pain at lateral epicondyle.

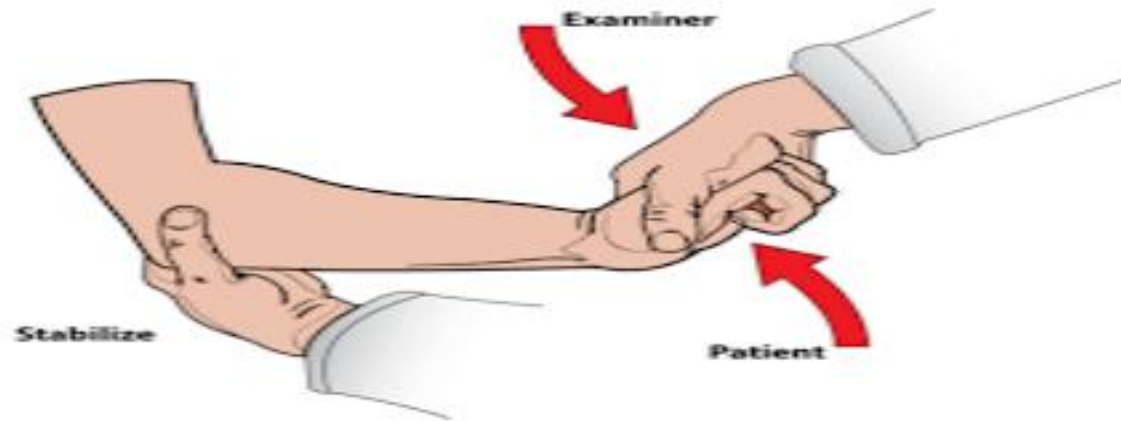


Elbow – Mill's Test

Purpose: Confirm lateral epicondylitis

Procedure: Passive wrist flexion with elbow extended.

Positive: Pain at lateral epicondyle.



Elbow – Tinel’s Sign (Elbow)

Purpose: Ulnar nerve irritation

Procedure: Tap between olecranon and medial epicondyle.

Positive: Tingling along ulnar distribution.

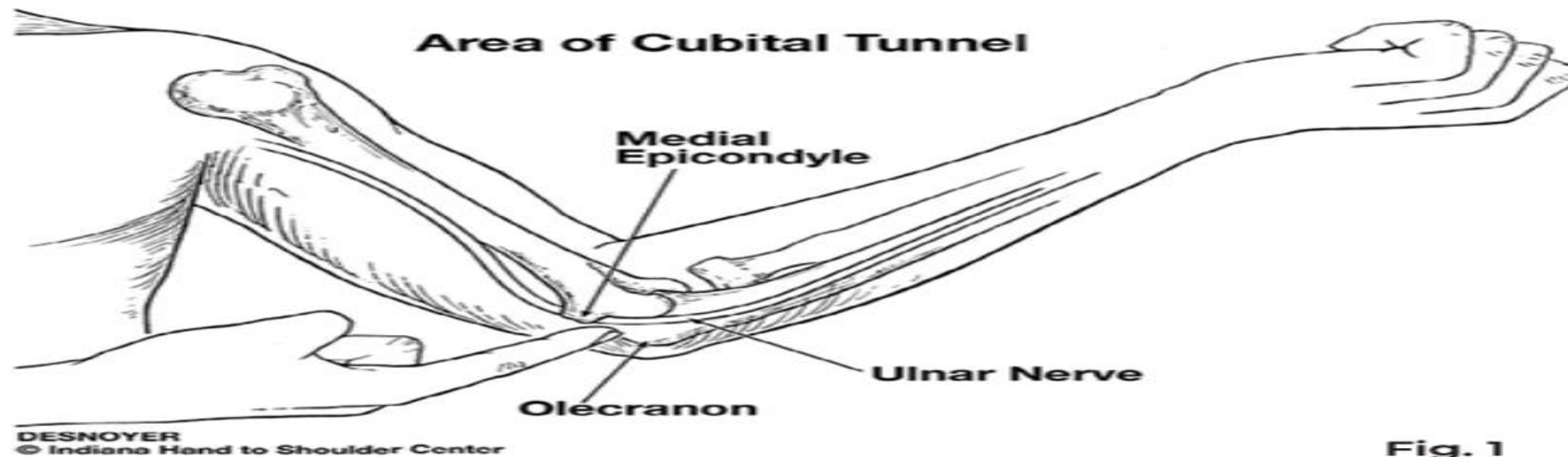


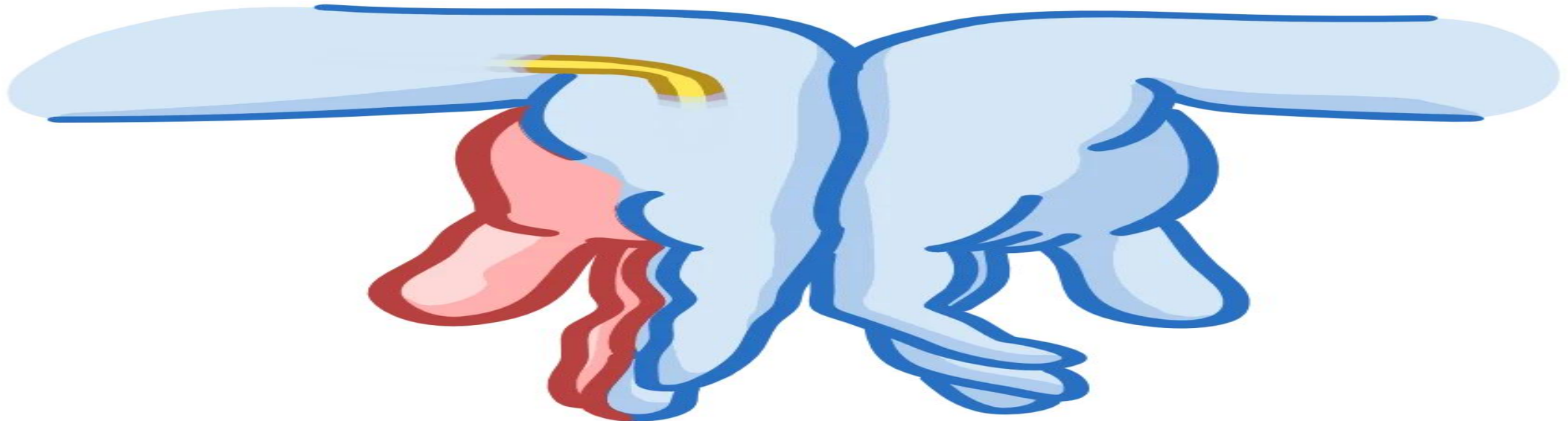
Fig. 1

Wrist – Phalen's Test

Purpose: Carpal tunnel syndrome

Procedure: Flex wrists and hold for 60 seconds.

Positive: Numbness or tingling in median nerve area.

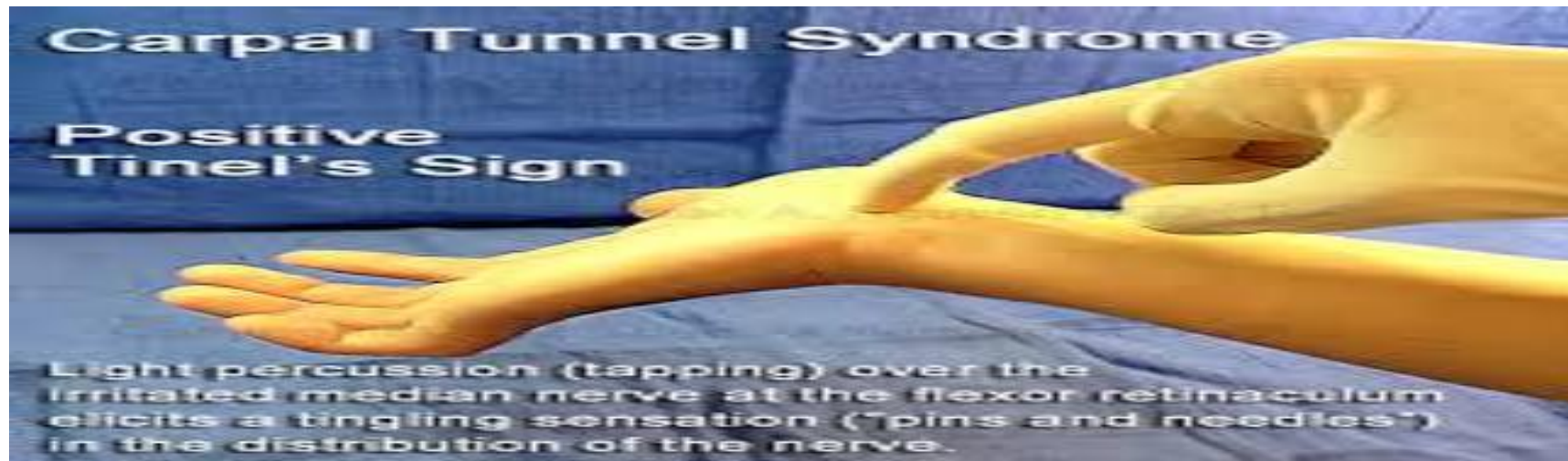


Wrist – Tinel's Sign (Wrist)

Purpose: Median nerve compression

Procedure: Tap over carpal tunnel.

Positive: Tingling in median nerve distribution.



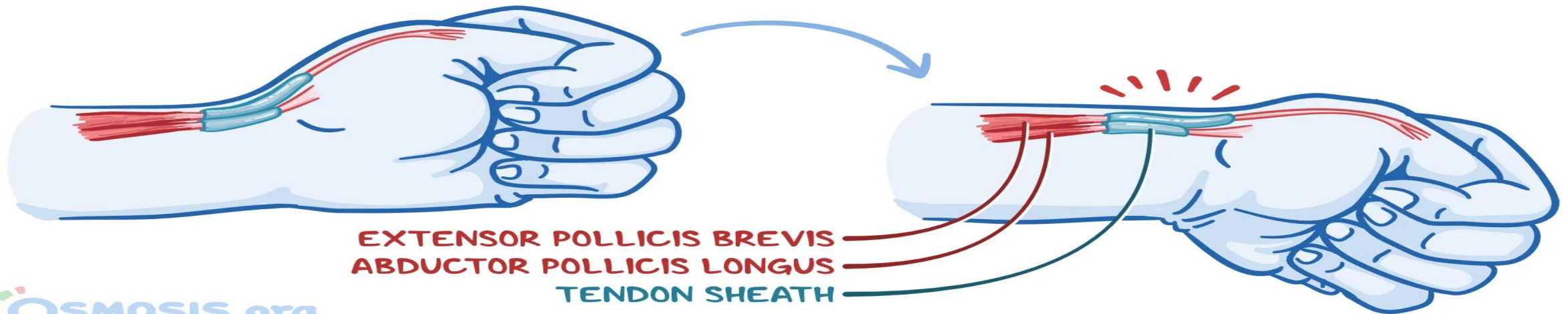
Wrist – Finkelstein's Test

Purpose: De Quervain's tenosynovitis

Procedure: Patient makes fist with thumb inside and ulnar deviates.

Positive: Pain along radial wrist.

FINKELSTEIN TEST

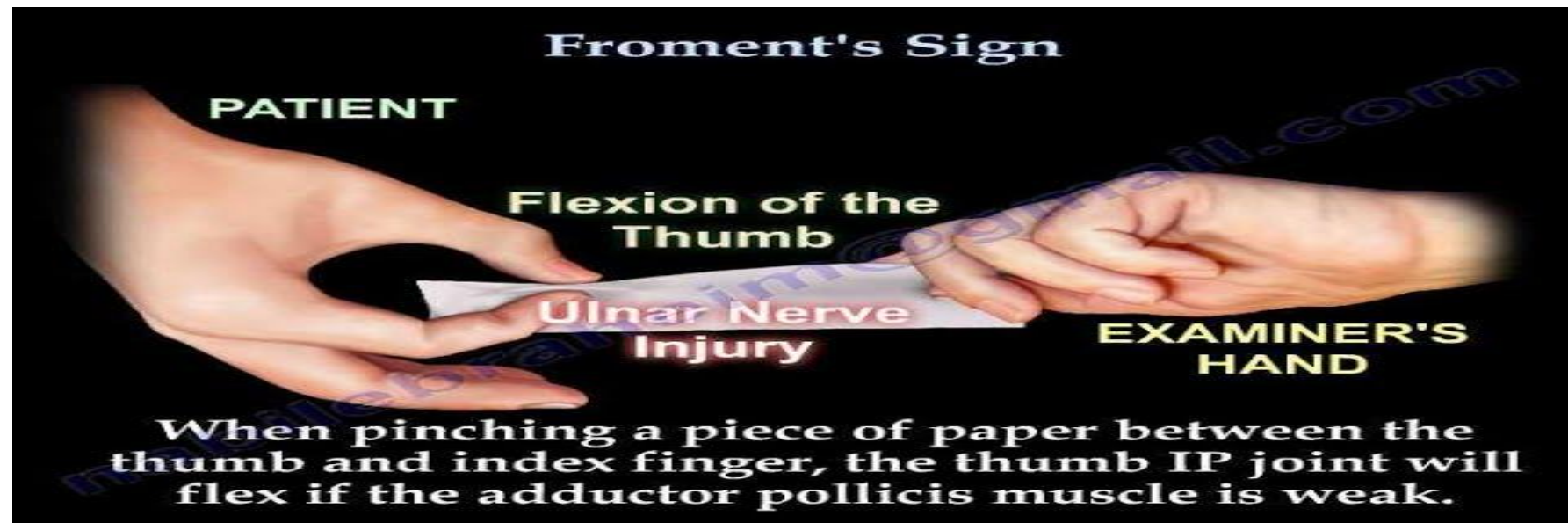


Hand – Froment's Sign

Purpose: Ulnar nerve palsy

Procedure: Patient grips paper between thumb and index.

Positive: Flexion of thumb IP joint indicates weakness.

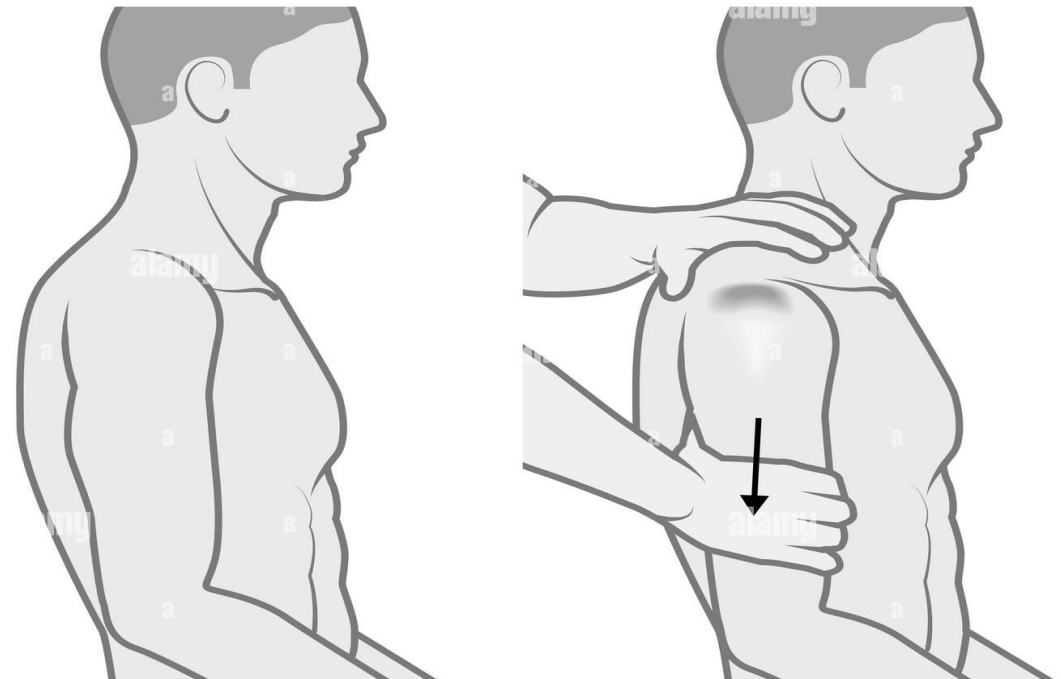


Shoulder – Sulcus Sign

Purpose: Inferior shoulder instability

Procedure: Pull arm downward at side.

Positive: Visible sulcus below acromion.



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Shoulder – Speed's Test

Purpose: Biceps tendon pathology

Procedure: Resist shoulder flexion with elbow extended.

Positive: Pain at bicipital groove



Speed Test



- Speed Test (also called Palm-Up Test or Straight Arm Test) is used to evaluate Biceps tendinitis and Superior labral anterior and posterior lesions (Slap Lesion).
- It was first described by Crenshaw and Kilgore in 1966.
- Forward elevation of the upper extremity between 60 to 90° with the elbow in extension and the forearm in supination against resistance causes pain at the long head of biceps.

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Functional Screening

Include combined movement patterns to detect multi-joint dysfunctions (Shoulder, Elbow, Wrist).

FMS Testing

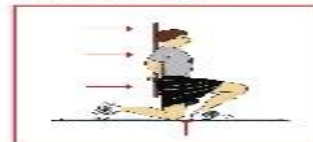
• Deep Squat



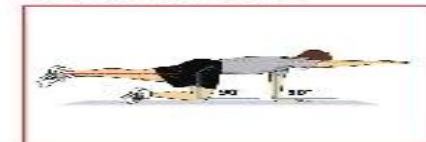
• Active Straight Leg Raise



• In Line Lunge



• Rotary Stability Test



• Hurdle Step



• Trunk Stability Push Up



• Shoulder Mobility



Summary

Upper limb special tests help identify:

- Impingement syndromes
- Tendinopathies
- Nerve compressions
- Instabilities
- Functional deficits

In class Assessment

Neer's Test is used to detect:

- a) Supraspinatus tear
- b) Biceps tendinitis
- c) Impingement syndrome ✓
- d) Shoulder instability

Hawkins–Kennedy Test stresses which muscle?

- a) Deltoid
- b) Supraspinatus ✓
- c) Subscapularis
- d) Latissimus dorsi

Cont'd

Drop Arm Test indicates:

- a) Biceps tendinitis
- b) Rotator cuff tear ✓
- c) Shoulder dislocation
- d) AC joint injury

Apprehension Test (Anterior) checks for:

- a) Posterior instability
- b) Inferior instability
- c) Anterior instability ✓
- d) Impingement

Integrated (Clinical reasoning)

IA patient reports pain on resisted wrist extension. Which test confirms the diagnosis?

- a) Mill's Test
- b) Cozen's Test ✓
- c) Finkelstein's Test
- d) Phalen's Test

If patient shows positive Sulcus Sign and Apprehension Test, what's likely?

- a) Rotator cuff tear
- b) Multidirectional instability ✓
- c) Adhesive capsulitis
- d) Biceps rupture

Cont'd

Weak pinch grip with positive Froment's sign = lesion of:

- a) Median nerve
- b) Ulnar nerve ✓
- c) Radial nerve
- d) Musculocutaneous nerve

Pain on thumb abduction and ulnar deviation of wrist indicates:

- a) Carpal tunnel
- b) de Quervain's tenosynovitis ✓
- c) Dupuytren's contracture
- d) Wrist sprain

Gamified In-Class Assessment Ideas

Activity	Description	Engagement level
Test Detective”	Divide class into small teams. Give a short patient case (e.g., shoulder pain on overhead activity). Teams identify which special test to perform.	 High
 MCQ Battle	Use tools like Kahoot / Quizizz / Mentimeter for the above MCQs. Fastest correct answer = points.	 High
 “Mimic the Test” Relay	One student demonstrates the test on another; others identify name + structure assessed.	 Practical
 “Match the Sign” Wall Quiz	Print photos of test positions; students stick correct test names & pathology cards below each.	 Visual
 Leaderboard Challenge	Keep a scorecard through all ortho practical classes; top scorers get “Ortho Detective” badges.	 Continuous

Thank you!!!!

References Books:

- ✓ Text book of orthopedic examination- David megee
- ✓ Text book of orthopedics- John Epinezar