Hand-Held Dynamometry for the Shoulder Muscles

Flexion (Anterior Deltoid, Coracobrachialis)

**Patient Position:** Supine, Shoulder flexed to 90° with elbow fully extended, palm towards lower extremity  
**Clinician Position:** Head of table  
  - Outside arm: shoulder flexed to 90°, elbow fully extended, neutral forearm  
  - Inside arm: stabilizing superior surface of the tested shoulder  
**HHD Position:** Just proximal to the ulnar styloid, extensor surface  
**Standard command:** “Go ahead, push-push-push-push and relax.”  
**Method of testing:** Perform a make test, 3 sec duration

![Hand-Held Dynamometry for the Shoulder Muscles Image]
Extension (Latissimus Dorsi, Teres Major, Posterior Deltoid)

**Patient Position:** Supine, Shoulder flexed to 90° with elbow fully extended, palm towards lower extremity

**Clinician Position:** Mid-table, seated beside patient facing patient’s head

- Outside arm: shoulder flexed to 90°, elbow fully extended, neutral forearm
- Inside arm: stabilizing anterior-superior surface of the tested shoulder

**HHD Position:** Just proximal to the ulnar styloid, flexor surface

**Standard command:** “Go ahead, push-push-push-push and relax.”

**Method of testing:** Perform a make test, 3 sec duration
Abduction (Middle Deltoid, Supraspinatus)

Patient Position: Supine, Shoulder abducted to 45° with elbow fully extended, palm towards lower extremity (Have tested arm supported on table as much as possible)

Clinician Position: Head of table
  Outside arm: shoulder 0° flexion, elbow at 90° flexion stabilized just superior to ASIS, neutral or supinated forearm position
  Inside arm: stabilizing superior surface of the tested shoulder

HHD Position: Just proximal to the ulnar styloid, extensor surface

Standard command: “Go ahead, push-push-push-push and relax.”

Method of testing: Perform a make test, 3 sec duration
Internal Rotation (Subscapularis, Pectoralis Major, Latissimus Dorsi, Teres Major)

Patient Position: Supine, Shoulder abducted to 90° with 90° elbow flexion and neutral forearm position (Have tested arm supported on table as much as possible)

Clinician Position: Mid-table, seated beside patient facing patient’s head
  Outside arm: shoulder 0° flexion, elbow at 90° flexion stabilized just superior to ASIS, neutral forearm position
  Inside arm: stabilizing anterior surface of the tested shoulder

HHD Position: Just proximal to the ulnar styloid, flexor surface

Standard command: “Go ahead, push-push-push-push and relax.”

Method of testing: Perform a make test, 3 sec duration
Internal Rotation (Subscapularis, Pectoralis Major, Latissimus Dorsi, Teres Major)
– Alternate Positioning

**Patient Position:** Seated, bolster under arm to maintain 30° abduction, 30° scaption, 30° diagonal tilt

**Clinician Position:** Same side as arm to be tested

**HHD Position:** Just proximal to the ulnar styloid, flexor surface

**Standard command:** “Go ahead, push-push-push-push and relax.”

**Method of testing:** Perform a make test, 3 sec duration
External Rotation (Infraspinatus, Teres Minor)

**Patient Position:** Supine, Shoulder abducted to 90° with 90° elbow flexion and neutral forearm rotation position (Have tested arm supported on table as much as possible)

**Clinician Position:** Head of table
- Outside arm: shoulder 0° flexion, elbow at 90° flexion stabilized just superior to ASIS, neutral forearm position
- Inside arm: stabilizing superior surface of the tested shoulder

**HHD Position:** Just proximal to the ulnar styloid, extensor surface

**Standard command:** “Go ahead, push-push-push-push and relax.”

**Method of testing:** Perform a make test, 3 sec duration
External Rotation (Infraspinatus, Teres Minor) – Alternate positioning

Patient Position: Seated, bolster under arm to maintain 30° abduction, 30° scaption, 30° diagonal tilt
Clinician Position: Same side as arm to be tested
HHD Position: Just proximal to the ulnar styloid, extensor surface
Standard command: “Go ahead, push-push-push-push and relax.”
Method of testing: Perform a make test, 3 sec duration