



## **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 and relax."

Method of testing: Perform a make test, 3 sec duration





**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 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 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 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

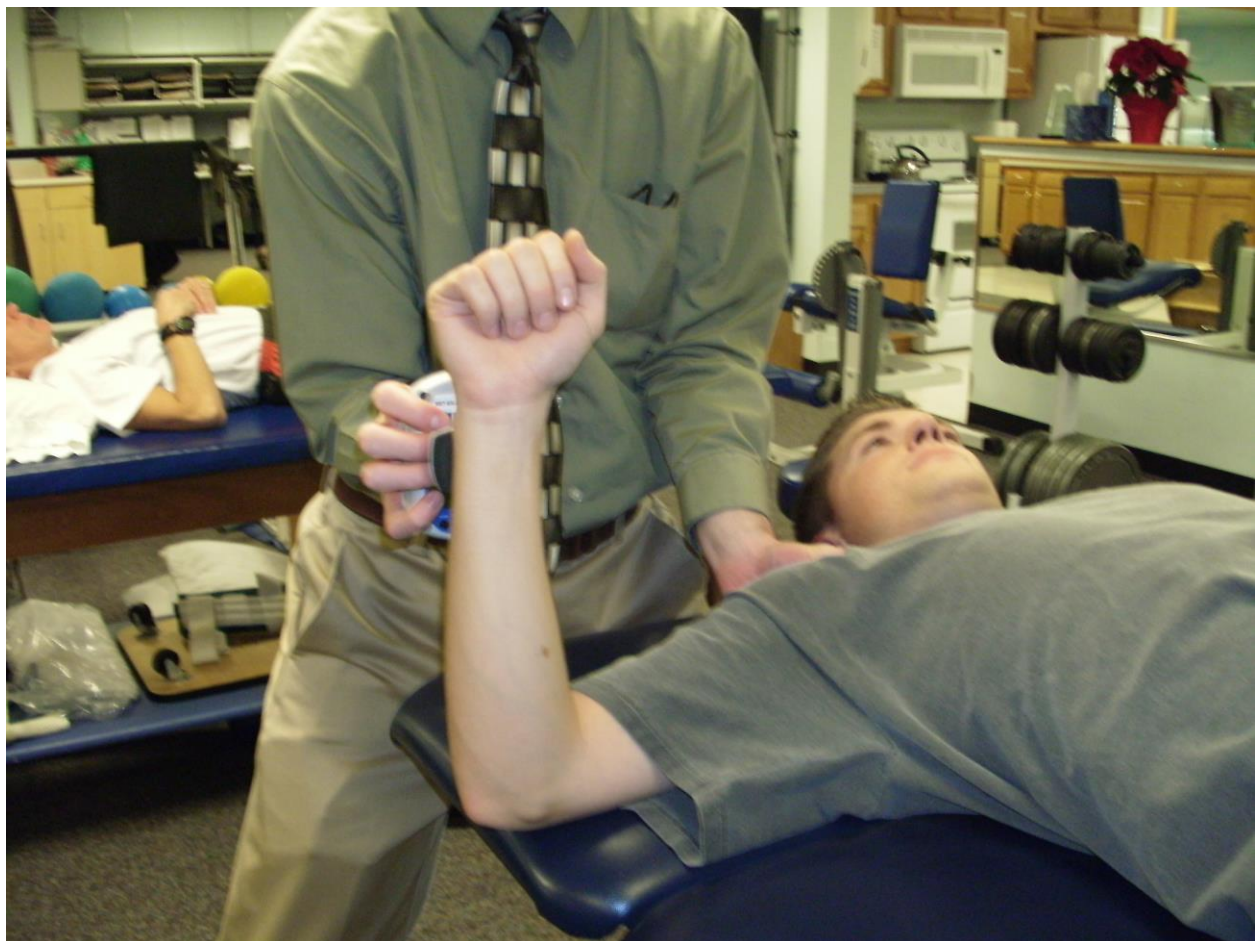
Outside arm: shoulder 0° flexion, elbow at 90° flexion stabilized just superior to ASIS, neutral forearm position

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 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

