

| <u>Movement</u> | <u>Test Position</u> | <u>Fulcrum</u> | <u>Stationary Arm</u> | <u>Moving Arm</u> | <u>Normal Values</u> | <u>End Feel</u> | <u>Substitution and Example</u> |
|---|--|--------------------|-------------------------------|--------------------|----------------------|--|---|
| <u>Hip Flexion</u> Stop at pelvic tilt | <u>Supine</u> -Knees extended (flex passively during test). -Hips neutral. -Stabilize to avoid posterior pelvic tilt. | Greater trochanter | Lateral midline of pelvis | Lateral epicondyle | 0° - (100-121°) | <u>Soft</u> – contact between muscle bulk of the anterior thigh and lower abdomen; passive tension of hip extensors | Posterior pelvic tilt |
| <u>Hip Extension</u> | <u>Prone</u> -Knees extended. -Hips neutral. -Stabilize to avoid anterior pelvic tilt. pt can't be prone if pregnant or cardiac problems | Greater trochanter | Lateral midline of the pelvis | Lateral epicondyle | 0° - (19-30°) | <u>Firm</u> – tension in the anterior joint capsule and iliofemoral ligament; passive tension of hip flexors | Anterior pelvic tilt Lateral tilt |
| <u>Hip Abduction</u> | <u>Supine</u> -Knees extended. -Hips neutral. | ASIS | Opposite ASIS | Patella | 0° – (40-45°) | <u>Firm</u> – tensions in the inferior joint capsule, pubofemoral, ischiofemoral, and iliofemoral ligaments and passive tension of adductors | Lateral pelvic tilt and rotation. Lateral trunk flexion. |
| <u>Hip Adduction</u> | <u>Supine</u> -Knees extended -Hips neutral. -Opposing hip in abduction | ASIS | Opposite ASIS | Patella | 0° – (20-30°) | <u>Firm</u> – tension in the superior (lateral) joint capsule and superior band of the iliofemoral ligament; passive tension of abductors | Lateral pelvic tilt. |

| <u>Movement</u> | <u>Muscle(s)</u> | <u>Patient Position</u> | <u>Therapist Position</u> | <u>Resisting Arms</u> | <u>Direction</u> | <u>Instructions</u> | <u>Grade</u> |
|-----------------------|--|-------------------------------------|--|---|------------------|--|---|
| <u>Trunk Flexion</u> | Rectus abdominis, external and internal obliques | <u>Supine</u> -Hands behind head | Stabilizes pelvis across ASIS | Gravity | N/A | “Tuck your chin and bring your head, shoulders, and arms off the table, as in a sit-up.” | 5 – lifts clearing both scapulae 4 – arms crossed in front of body 3 – arms are outstretched in full extension to lift scapulae off table 2 – head lifted off table (knee flexed) 1 – contraction (knee flexed) 0 – no contraction |
| <u>Trunk Rotation</u> | External and internal oblique | <u>Supine</u> -Hands behind head | Stabilizes pelvis across ASIS | Gravity | N/A | “Lift your head and shoulders from the table, taking your right elbow toward your left knee” | 5 – scap is cleared off table 4 – arms are crossed and scap must clear table 3 – arms outstretched 2 – unable to clear scap 1 – contraction (knee flexed) 0 – no contraction |
| <u>Inspiration</u> | Diaphragm (C3-C5) | <u>Supine</u> | Standing – hand placed lightly on the abdomen just below xiphoid | Patient inhales with max effort and holds max inspiration | N/A | “Take a deep breath and hold it” | 5 – full inspiratory excursion (resistance against 100lbs) 4 – yields against heavy resistance 3 – cannot tolerate manual resistance 2 – epigastric rise without full inspiratory expansion 1 – contraction 0 - DEAD |

| | | | Arm | Arm | | | Info. |
|-------------------------------|------------------------------|--|--------------------------|----------------|----------|---|---------------------------------------|
| Shoulder horizontal abduction | Post. Deltoid | <u>Prone</u> Shoulder ABD 90 Forearm off table Elbow flexed | Stabilizing scapula | Distal humerus | Downward | 5,4,3 | |
| | | | | | | For 2,1,0 Client seated (no gravity) | |
| Shoulder ER | Infraspinatus Teres minor | <u>Prone</u> Shoulder ABD 90 Forearm off table Elbow flexed | Support humerus w/ towel | Proximal wrist | Downward | 5,4,3 | Sub: Trunk extension |
| | | | | | | For 2,1,0 entire arm hanging off table | |
| Shoulder IR | Subscapularis | <u>Prone</u> Shoulder ABD 90 Forearm off table Elbow flexed | Support humerus w/ towel | Proximal wrist | Downward | 5,4,3 | Sub: Trunk flexion |
| | | | | | | For 2,1,0 entire arm hanging off table | |
| Scapular Elevation (2,1,0) | Upper trap | | | | | | Client lying prone elevates shoulders |