



HRUSKA ABDUCTION LIFT TEST

This test is used as a Myokinematic measurement with each grade reflecting muscle position, strength, kinesthetic awareness, and neuromuscular ability. The test is named for the leg, which is placed on the wall. (Patient is lying on their left side with right foot placed on the wall → “Right” Hruska Abduction Lift Test.)

POSITION

- 1) Patient sidelying with upper leg extended and aligned with hip and shoulder.
- 2) Adjust position of knees to wall, so that top knee is above the level of the ipsilateral shoulder.
- 3) Lower leg is flexed with lower toes positioned on the wall directly under the top foot and placed on 4 to 6” bolster.
- 4) Top palm should be placed flat on surface in front of chest and bottom hand under head.

MECHANICS *(Discontinue test at the step the patient is unable to perform)*

- 1) Step 1: ask patient to press bottom toes into wall to stabilize pelvis
- 2) Step 2: instruct patient to press bottom hip into the surface to engage lower abs and lower adductors
- 3) Step 3: ask patient to turn and raise bottom knee up or inwardly using lower ischiocondylar adductor and anterior gluteus medius, without moving top hip backwards.
- 4) Step 4: turn top heel up or top toes down without lowering bottom knee or moving top hip forward.
- 5) Step 5: attempt to raise top leg off wall and extend the hip while trunk and hips are stabilized in previous positions.

GRADING CRITERIA

LEVEL → 0

Inability to position top leg in alignment with top shoulder and hip and with top knee above top shoulder without experiencing top hip impingement, sacral iliac pain or low back pain.

Malaligned pelvis and poor integration of adductors, abductors and FA rotators in frontal plane.

Also reflects inability to inhibit outlet abduction or inferior medial obturator internus and iliococcygeus of the extended extremity.



LEVEL → 1

Ability to push bottom hip into surface.

Inability reflects weakness in bottom internal oblique and transversus abdominis or bottom quadratus lumborum or top external obliques.

Also reflects inability to inhibit inlet abduction or proximal rectus femoris/sartorius of the flexed extremity via inlet extension with IO/TA's.



LEVEL → 2

Ability to raise or turn “in” bottom knee without moving top pelvis backwards.

Inability reflects poor strength or kinesthetic awareness of ischiocondylar adductor or anterior gluteus medius; or lax iliofemoral – pubofemoral ligament.

Also reflects inability to achieve outlet abduction of the flexed extremity via facilitation of the inferior medial obturator internus and iliococcygeus with femoral adduction.



LEVEL → 3

Ability to rotate top extremity inward (FA IR) without moving top pelvis forward.

Inability reflects poor strength or kinesthetic awareness of ipsilateral gluteus minimus and anterior gluteus medius, or impingement of medial femoral head on anterior medial cotyloid labral rim secondary to forward, anteriorly rotated contralateral pelvis.

Also reflects inability to achieve inlet adduction of the flexed extremity via ilium attachment of the iliacus and left gluteus medius.



LEVEL → 4

Ability to raise top leg completely off the wall and hold without using lateral trunk muscle.

Inability reflects poor integration between contralateral hip adductors, and ipsilateral hip abductor (gluteus medius).

Also reflects inability to achieve inlet abduction of the extended extremity via superior gluteus maximus.



LEVEL → 5

Ability to move correctly abducted top lower extremity into extension without extending low back or flexing knee or rotating leg externally (FA ER).

Inability reflects inability to extend leg with gluteus maximus during concomitant abduction and FA stabilization provided by adductors (IR's) and anterior gluteus medius and TFL.

Also reflects inability to achieve outlet adduction of the extended extremity via inferior gluteus maximus.

