Flex Therapist CEUs

Gluteus Muscle Function and Strengthening - A Practical Assessment and Application

1. Weakness of the glute max is likely to result in which of the following postural observations?

- A. Lengthened hip flexors, excess knee valgus, posterior pelvic tilt
- B. Weak thoracolumbar extensors, excess hip external rotation, hyper-lordosis
- C. Hyper-active hip flexors, anterior pelvic tilt, flexed knees
- D. Hyper-active hip flexors, excess knee varus, tight IT band

2. Which of the following is NOT correct regarding the role of the glute med during gait?

- A. Pulls the ilium inferiorly to allow for ipsilateral pelvic tilt and rise to allow foot clearance
- B. Provides frontal plane pelvic stability
- C. Peak muscle activity occurs during loading response
- D. Is mostly quiet during standing and walking, but provides powerful hip extension during running

3. Which of the following statements regarding the Thomas test is correct?

- A. The test is used to assess for the presence of gluteal tendinopathy
- B. The test is performed in sidelying, where the patients hip is placed into extension and allowed to adduct
- C. The test is used to assess for short, tight hip flexors which is related to decreased glute activation via the lower crossed syndrome
- D. The test is performed in single leg stance, a positive test is an ipsilateral pelvic drop

4. Which of the following statements regarding the gait cycle is correct?

- A. There is an extensor moment during loading response as the glutes activate to stabilize the pelvis on the femur
- B. Peak muscle activation of the glute max occurs during terminal stance
- C. Apparent hyperextension is the combination of hip extension, posterior pelvic tilt and forward pelvic rotation
- D. During normal walking the hip joint needs a total of 20 degrees of hip flexion and 15 degrees of apparent hyperextension
- 5. Greater trochanteric pain syndrome can have many causes related to multiple tissues. Which of the following scenarios would lead the therapist to suspect trochanteric bursitis as the pain

generator?

- A. Positive hip lag sign, no response to steroid injections, irritated sciatic nerve that stops above the knee
- B. Deep ache in the buttock, pain with stair climbing, numbness and tingling to the big toe
- C. Subjective report of a snapping sensation during running, pain with stair climbing, positive Obers test
- D. Pain at end range hip ROM, positive response to steroid injections, pseudo-radiculopathy down the lateral thigh

6. Choose the correct statement regarding knee valgus and gluteal dysfunction.

- A. Weak glutes lead to increased hip adduction and internal rotation, creating increased knee valgus to support the femur under the pelvis
- B. Hip adduction and internal rotation occurs due to the synergistic dominance of the TFL, quads and adductor magnus in response to weak glutes
- C. The actions of the glute max (hip extension, internal rotation) counteract medial knee collapse (hip adduction, hip external rotation)
- D. Medial knee collapse is a result of a weak gluteus medius and is related to the Trendelenburg sign

7. Your patient is a 25-year-old female collegiate runner who comes in with complaint of lateral hip pain, tenderness to the greater trochanter and knee pain. Which of the following groups of tests and measures is most appropriate to include on examination?

- A. Hip lag sign, Obers test, functional assessment of a double leg squat
- B. External de-rotation test, functional assessment of single leg step down, assessment of stride length during running analysis
- C. Hip internal rotation ROM, Thomas test, Trendelengberg sign
- D. External de-rotation test, functional movement assessment of a lateral hop, hip adductor MMT

8. Your patient presents with a positive Thomas test, 2+/5 glute med strength and a positive Trendelenberg sign during gait. Which of the following combinations would be best indicated for this patient at the beginning of treatment?

- A. Development of neuromuscular control using a mirror combined with explosive sport specific training
- B. Restoration of lumbopelvic stability combined with non-weight-bearing exercises targeting the gluteus medius
- C. Deep abdominal muscle training combined with functional weight bearing exercises targeting the gluteus maximus
- D. Focused neuromuscular retraining of functional movement patterns combined with glute med isometrics

9. Bridging is an excellent therapeutic exercise used to strengthen the glutes. Which of the following bridge set ups would best target the glute max?

- A. Double leg bridge with knees bent to 90 degrees
- B. Single leg bridge with working leg bent to 135 degrees
- C. Elevated double leg bridge on a Swiss ball
- D. Double leg bridge with transversus draw in maneuver

10. The literature suggests that glute med activation is greatest during which of the following groups of exercises?

- A. Bird dog, double leg squat, prone hip extension
- B. Side plank, lateral banded walking, wall sit
- C. Hip clam, step up, lateral step up
- D. Side plank with hip abduction, hip clam, front plank with hip extension

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