

Heel Rise

Equipment:

Metronome set at 60 bpm, wall

Purpose:

Assess the functional strength of the gastrosoleus muscle group

Assesses endurance, strength, fatigue, function and performance that could be as gait and balance

Procedure:

1. Subject is barefoot and must be able to observe the leg past knee

2. Assess bilateral exertion first

Have them rise up on both toes to see exertion rise available

3. Test each leg separately

4. Subject may lightly place hands on the wall for balance support

5. Instruct the subject to rise up on the ball of the foot at a rate of 1 rep every 2 seconds (metronome beat: up on first beat, down on second beat)

6. Document total number of rises completed successfully up to 25.

7. Test stops if:

a. Knee flexes

b. Range of rise decreases to >50% of bilateral rise

c. Subject rocks back and forth

d. Loss of balance

e. Fingers press into support surface

f. Unable to keep up rhythm

Scoring: (*based on 20-59 year olds)

- ▶ 5/5 \geq 20 reps
- ▶ 3/5 = able to raise body weight up one time to 9 times
- ▶ 2/5 = maximal manual resistance in non-weightbearing position, but not able to achieve heel rise

NORMS:

Males

21-40 yrs = 22.1 (\pm 9.8)

41-60 yrs = 12.1 (\pm 6.6)

61-80 yrs = 4.1 (\pm 6.7)

Females

21-40 yrs = 16.1 (\pm 6.7)

41-60 yrs = 9.3 (\pm 3.6)

61-80 yrs = 2.7 (\pm 1.5)