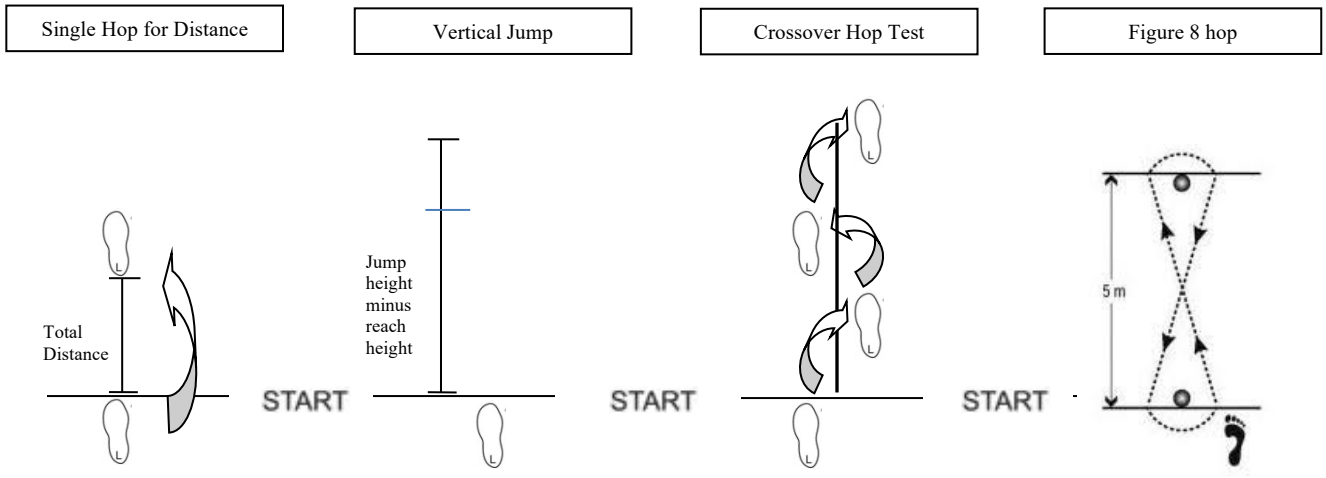
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Lower Extremity Functional Tests

Warm-up
Allow 5 minute bike or elliptical warm-up with light to moderate resistance.

Demonstration and practice trials
The examiner may demonstrate each test. Patient can have a maximum of 2 practice trials for each test.

Scoring
Greater than or equal to 90% (involved vs uninvolved limb) is required to pass each test.



Single Hop for Distance
Patient stands with toes behind the starting line. Ask the client to hop out as far as possible, sticking the landing with the knee bent to help decrease the risk for injury. The hop will be measured from the starting line to the back of the heel after completion of a trial. Each limb will be tested three times and record the longest jump.

Vertical Jump
If using Vertec: Pt reaches as high as they can to touch a plastic vane. Push the vanes below this level out of the way. Record their reach. Then patient starts on single leg, jumps up, hitting the highest vane possible. They can land on both legs. Record this vane as their jump height. Subtract their reach distance from his/her jump height and this is the vertical jump distance. Record the best of 3 trials.

Crossover Hop Test for Distance
Patient will perform a single leg triple hop crossing over a 4 inch line/tape on the floor. Beginning with the foot immediately behind the starting line, the subject will perform three cross-over hops on a single leg. Instruct the patient to hop as far as possible for all three hops and to hold the landing foot stationary on the last hop. Do not allow the patient to pause and compose themselves between hops. Record the score as the distance from the starting line to the back of the heel on the final landing. Record the best of 3 trials.

Figure 8 timed hop test

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Lower Extremity Functional Tests

Place 2 cones 5 meters (16'5") apart. Patient should hop, on one limb, as fast as possible around the cones in a figure 8 pattern with time recorded when he/she crosses the start/finish line. Record the best time of 2 trials. Failed test if pt touches down the opposite limb throughout the test. Calculation instructions: find the difference between the 2 values. Divide this difference by the non-operative time and multiply by 100. Then subtract the % difference from 100.
Example: non-op leg 4 seconds and operative leg 5 seconds

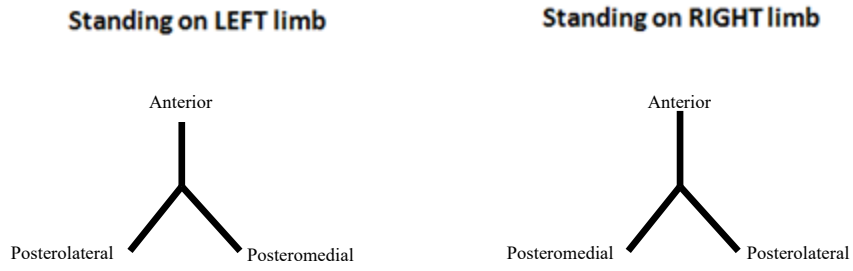
5-4 = 1 divided by 4 (non-op time) = 0.25 X 100 = 25% (percent difference)
100-25 = 75% (final value)

Y Balance Test

The goal of this test is to maintain single-leg balance while reaching as far as possible with the contralateral leg in three different directions. The three movement directions are anterior, posteromedial, and posterolateral. The six tests are to be performed in the following order: uninvolved anterior reach, involved anterior reach, uninvolved posteromedial, involved posteromedial, uninvolved posterolateral and involved posterolateral.

Starting position is single leg stance, toes behind the line, and ask the patient to reach with the opposite lower extremity while maintaining balance. Tell them to reach as far as possible without using the reach leg to provide support and return to the upright position after each reach while maintaining balance. The stance foot should not move from its original position (do not lift the heel).

Perform 3 trials and record the best score of the 3 trials for each position. For each leg, add the 3 direction scores together for a composite score.



Strength Testing

Use a hand held dynamometer or Biodex for isometric testing for both quadriceps and hamstring strength. Limb should be at 90* knee flexion with the patient seated. For HHD use a strap/mobilization belt to stabilize the leg. Pt may use the opposite limb to stabilize on the table. Record the best of 2 trials.

(Revised 8/2026)

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Lower Extremity Functional Tests

Patient Name:_____ **DOB:**_____

Diagnosis:_____ **Physician:**_____

Surgery Date:_____ **Clinician:**_____

Surgical Procedure:_____

Date of testing:_____ **Pain:**____/10

Patient Comments: _____

_____

_____

Y Balance Test (cm)

Involved Side: ☐ Right ☐ Left

	Involved	Uninvolved
Anterior		
Post-Medial		
Post-Lateral		
Sum		

% of Uninvolved:_____

Vertical jump (inches)

Involved Side: ☐ Right ☐ Left

	Involved	Uninvolved
Best Score		

% of Uninvolved:_____

Figure 8 timed hop (seconds)

Involved Side: ☐ Right ☐ Left

	Involved	Uninvolved
Best Score		

% of Uninvolved:_____

Single Hop for Distance (cm)

Involved Side: ☐ Right ☐ Left

	Involved	Uninvolved
Best Score		

% of Uninvolved:_____

Crossover Hop Test (cm)

Involved Side: ☐ Right ☐ Left

	Involved	Uninvolved
Best Score		

% of Uninvolved:_____

Strength testing

Involved Side: ☐ Right ☐ Left

	Involved	Uninvolved
Quad/extension		
Hamstring/flexion		

% of Uninvolved:_____

Clinician Signature_____ **Date/Time** _____

*** Please fax the completed form to the physician at Hays Orthopedic Institute (Fax: 785-261-7548)**