



Knee Sport Test
Functional assessment, return to sport

Name: _____
M.D.: Benjamin M Petre, MD
Dx: _____

Date: _____
S/P _____ wks / mos

Single Knee Bends (goal: 3 min)

1 point for each 30 seconds
Stopped test due to: *form pain endurance*
Time: _____

Score: _____/6

Lateral Agility (goal: 90 seconds)

1 point for each 15 seconds
Stopped test due to: *form pain endurance*
Time: _____

Score: _____/6

Forward Running (goal: 2 min)

1 point for each 30 seconds
Stopped test due to: *form pain endurance*
Time: _____

Score: _____/4

Backward Running (goal: 2 min)

1 point for each 30 seconds
Stopped test due to: *form pain endurance*
Time: _____

Score: _____/4

Score: _____/20
(17 pass)

Test Administered By: _____

Facility Test Performed At: _____

Future Program Instructions: _____



Single Knee Bend

Purpose: To test single leg endurance strength and evaluate patellar tracking.

Supplies: Sport Cord (Topper Sports Medicine, black cord) Goniometer Stopwatch

Description: The Athlete will perform single knee bends with cord resistance to 60° at a cadence of 1 second up and 1 second down for a goal of 3 minutes. The movement is between 30°-60° of flexion with the knee never fully straightening past 30° throughout the 3 minutes. To cue the athlete the depth of 60° the buttocks can lightly touch the seat of a chair or object. Two fingers are allowed for balance on a chair back.

Setup:

1. With a goniometer, measure a 60° knee bend and place a chair in a position to allow the athlete's buttocks to lightly touch at that depth.
2. The athlete places the heel of the foot on the cord at a position so the D-ring of the handle is aligned with the knee joint line to remove slack from the cord.
3. Tension is set by pulling the cord handle to the waist line and holding. Having the athlete hook their thumb around their pant line is helpful in maintaining tension on the cord.
4. Two fingers of the opposite hand are allowed to lightly touch another chair back for balance

Technique: The athlete must perform each repetition of a single knee bend without the following:

- Trendelenburg sign (pelvis must remain level)
- the knee locking in full extension
- the knee "collapsing" into medial rotation / adduction
- the patella extending past the toe

Cuing should be provided when one of the following compensations are noted. **If unable to correct STOP TEST.**

Scoring: One point is earned for each 30-second increment completed with proper form for a total of 6 possible points.

Testing is stopped if and when:

- Form: once the subject is unable to complete single knee bends without compensation even with cuing.
- Pain: the patient has pain > 3/10 OR reproduces their pain
- Endurance: the athlete fatigues

Lateral Agility



- Purpose:** To test the ability of the leg to accept load (absorb) and push off in a lateral direction.
- Supplies:** Sport Cord (Topper Sports Medicine, black cord) Stopwatch and Tape
- Description:** The athlete will hop laterally with cord resistance from their surgical leg, land momentarily on their non-surgical leg, only to return onto their surgical leg with the cord pulling them back to the starting position for a total test time of 90 seconds. Each repetition of 1 second includes exploding laterally off the surgical side, landing momentarily on the opposite leg, and then returning to the starting position with emphasis on absorbing by bending at the hip and knee with 30 degrees of knee excursion. Excursion is defined as the amount of absorption from knee flexion at landing to max knee flexion.
- Setup:**
1. Place the belt through the sport cord handles and then attach around the waist.
 2. Attach the other end of the sport cord to the door jam or secure post.
 3. Stand sideways with the involved leg toward the cord attachment.
 4. Step away laterally until tension is reached where the athlete slightly compensates with leaning and place a line with tape on the lateral aspect of the involved foot.
 5. Measure the distance from the greater trochanter to the floor.
 6. Use this measured distance to place a second tape line parallel to the first.
- Technique:** The athlete must perform each lateral hop by landing on or inside the first tape line with the involved foot and on or outside the second tape line with the uninvolved foot. Only one foot should be on the ground at the same time and the athlete must absorb onto the involved leg without the following:
- Trendelenburg sign (pelvis must remain level)
 - the knee "collapsing" into medial rotation / adduction
 - the patella extending past the toe
 - losing control or stability
- Cuing should be provided when one of the following compensations are noted. **If unable to correct STOP TEST.**
- Scoring:** **One point is earned for each 15 second increment completed with proper form for a total of 6 possible points.**
- Testing is stopped if and when:**
- Form: once the subject is unable to complete single knee bends without compensation even with cuing.
 - Pain: the patient has pain > 3/10 OR reproduces their pain
 - Endurance: the athlete fatigues

Forward Running

Purpose: To test the ability of the leg to accept load (absorb) and push off in a forward direction.

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Name: _____

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Date: _____



Supplies: Sport Cord (Topper Sports Medicine, black cord) Stopwatch and Tape

Description: The athlete will hop back and forth from the non-surgical leg onto the surgical leg in a “modified” jogging motion. The cord is attached from behind the athlete to provide a force pulling backwards. There is no significant side to side motion but there is more absorption and up and down motion required than would be if performing only a jogging motion. The goal is 2 minutes total. Emphasis is on absorbing by bending at the hip and knee with 30 degrees of knee excursion. Excursion is defined as the amount of absorption from knee flexion at landing to max knee flexion.

Setup:

1. Place the belt through the sport cord handles and then attach around the waist.
2. Attach the other end of the sport cord to the door jam or secure post.
3. Stand facing away from the cord attachment so it is pulling backwards on the athlete.
4. Step forward until tension is reached where the athlete slightly compensates by leaning forward and place a line with tape behind the heels. It should be the same line as the first line on the lateral agility test.

Technique: The athlete must perform the “modified” (modified because it is more about the absorption than the actually jogging) jogging motion while staying in front of the line. Only one foot should be on the ground at the same time and the athlete must absorb onto the involved leg without the following:

- Trendelenburg sign (pelvis must remain level)
- the knee "collapsing" into medial rotation / adduction
- the patella extending past the toe
- losing control or stability

Cuing should be provided when one of the following compensations are noted. **If unable to correct STOP TEST.**

Scoring: **One point is earned for each 30-second increment completed with proper form for a total of 4 possible points.**

Testing is stopped if and when:

- Form: once the subject is unable to complete single knee bends without compensation even with cuing.
- Pain: the patient has pain > 3/10 OR reproduces their pain
- Endurance: the athlete fatigues

Backward Running

Purpose: To test the ability of the leg to accept load (absorb) and push off in a backward direction.

Supplies: Sport Cord (Topper Sports Medicine, black cord) Stopwatch and Tape

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Description: The athlete will hop back and forth from the non-surgical leg onto the surgical leg in a “modified” jogging motion. The cord is attached in front of the athlete to provide a force pulling forwards. There is no significant side to side motion but there is more absorption and up and down motion required than would be if performing only a jogging motion. The goal is 2 minutes total. Emphasis is on absorbing by bending at the hip and knee with 30 degrees of knee excursion. Excursion is defined as the amount of absorption from knee flexion at landing to max knee flexion.

Setup:

1. Place the belt through the sport cord handles and then attach around the waist.
2. Attach the other end of the sport cord to the door jam or secure post.
3. Stand facing the cord attachment so it is pulling forwards on the athlete.
4. Step forward until tension is reached where the athlete slightly compensates by leaning backwards and place a line with tape in front of the toes. It should be the same line as the first line on the lateral agility test.

Technique: The athlete must perform the “modified” (modified because it is more about the absorption than the actually jogging) jogging motion while staying in front of the line. Only one foot should be on the ground at the same time and the athlete must absorb onto the involved leg without the following:

- Trendelenburg sign (pelvis must remain level)
- the knee "collapsing" into medial rotation / adduction
- the patella extending past the toe
- losing control or stability

Cuing should be provided when one of the following compensations are noted. **If unable to correct STOP TEST.**

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