



# Sports & Orthopaedic Specialists

## Criterion Based ACL Injury Protocol: PREOPERATIVE REHABILITATION

1-3 visits of Physical therapy.

No more than once per week. Focus on teaching home program.

### GOALS

1) Reduce joint effusion

### REHAB STRATEGIES

Cryotherapy, elevation, ankle pumps

2) Normalize range of motion

Extension: 0

Flexion: Heel to buttock in prone

Determined by contralateral knee

Extension (focus): Heel on chair, prone hang

Flexion: Heel slide, heel slide with patient-applied over-pressure, prone flexion with patient-applied over-pressure

Gastroc/soleus: Runner stretches

3) Strengthen lower extremities

Quadriceps (focus): Quads sets, SLR, wall squat to 45 degrees

Hamstrings: Standing ham curls, bridging

Glute med/max: Clam shell

Gastroc/soleus: Heel raises

4) Improve proprioception

Tandem stance, single leg balance

5) Normalize gait

Encourage full weight bearing and symmetrical patterning

Retro walking

6) Patient education

Inform the patient of acute postoperative expectations:

-Compressive cryotherapy continuously for the first 72 hours. Then for 20 minutes 3-5 times per day

-Exercises: Ankle pumps/quads sets/heel slides (2x/day)

-Postop brace locked in full extension. Sleep with brace on.

-Crutches for 3-10 days or as instructed by physician

-Follow all postoperative instructions from MD

-Call MD or PT if questions arise

-Begin PT 2-3 weeks following surgery (after postop visit with MD)

Remind the patient of return to sport/activity guidelines:

Teach the patient that the following time references are the EARLIEST that a specific activity may be started. It will be more important for patients to meet ROM, strength, and functional criteria before these activities are reintroduced.

-Running: 11+ weeks after surgery

-Non-contact drills/practice: 6+ months after surgery

-Contact sport: 9-12 months after surgery

-Use of functional brace for 18 months after surgery or as determined by physician

7) Outcome measures

Lower Extremity Functional Scale

ACL – Return to Sport Index



# Sports & Orthopaedic Specialists

## Criterion Based ACL Reconstruction Protocol: POSTOPERATIVE REHABILITATION

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### INTRODUCTION

-This ACL reconstruction protocol is criterion based. Patients must demonstrate specific functional criteria at each physical therapy visit before progressing to more advanced interventions.

-Throughout this protocol, time references (in weeks since surgery) represent the EARLIEST that a patient may begin an exercise/activity following ACL reconstruction with **patellar tendon or hamstring autograft** with or without partial medial or lateral meniscectomy.

-If the patient underwent **revision** ACL reconstruction or **allograft** was utilized, delay all milestones by two weeks or as directed by the physician.

-If **medial and/or lateral meniscus repair** was completed, patient is non- or toe-touch weight bearing for four weeks after surgery (or as directed by the surgeon). Then transition to standard protocol. Be aware that this patient may also have postoperative range of motion precautions as determined by the physician.

### PROTOCOL UTILIZATION

Each time reference in the protocol is categorized into four sections:

#### Functional Criteria

In this section, the therapist will see criteria for how a typically progressing patient should present following surgery. **The patient should be able to demonstrate the listed criteria at the start of the physical therapy visit. If able, progress to the therapeutic exercise listed below.** If unable, continue to focus on PT intervention strategies from prior sessions that will assist the patient in achieving these functional criteria before the next clinic visit.

#### Patient Education

In this section, the therapist will see points of education that should be discussed with the patient including: Frequency of home program, use of brace, graft strength, exercise technique, return to sport.

#### Therapeutic Exercise

The therapeutic exercise listed in this protocol conveys the appropriate load for the patient given the time elapsed and the functional progress made since surgery. This is not a complete listing of rehabilitation strategies. Only teach patients exercises appropriate for this time frame if they were able to demonstrate functional criteria listed above.

#### Outcome Measures

The Lower Extremity Functional Scale and ACL – Return to Sport Index will be used throughout recovery to gauge patient perceived function and self-efficacy with activity.

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## Criterion Based ACL Reconstruction Protocol: POSTOPERATIVE REHABILITATION

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Begin physical therapy with 2-3 visits at one week intervals. Then every other week until the patient has passed functional tests. Emphasis is placed on independent completion of instructed home exercise program. Approximately 12-18 clinic visits in PT from surgery to return to activity/sport.

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### **WEEK 2-3: Focus on early extension ROM, quads recruitment**

#### Functional Criteria

- Extension 0 primary focus
- Flexion 70 secondary focus
- Ambulation with brace locked in full extension with/without axillary crutches

#### Patient Education

- Inform patient that they can expect up to one hour of daily rehab from now until return to sport
- Complete home program TWICE per day (two 30 minute sessions)
- Continuous wear of brace locked in full extension, including sleep. Exception: home exercise program with brace off.
- Wean from crutches if not already completed
- Continue to ice/elevate for 20 minutes up to three times per day
- Teach patellar mobilization 5 minutes daily
- Remind the patient that the following time references are the EARLIEST that a specific activity may be started: Running: 11+ weeks after surgery. Non-contact activity/sports: 6+ months after surgery. Contact sports: 9-12 months after surgery
- Use of functional brace for 18 months after surgery or as determined by physician

#### Therapeutic Exercise

- Chair extension stretch, heel slide with self-applied over-pressure
- Quads set, SLR, wall squat 15-30 seconds (max of 45 degrees)
- Heel raise
- Clam shell with no band
- Stationary bike with no resistance (partial to full circles)

#### Outcome Measures

- Lower Extremity Functional Scale (Appendix 3)



## Criterion Based ACL Reconstruction Protocol: POSTOPERATIVE REHABILITATION

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### **WEEK 3-4: Focus on extension ROM, quads recruitment/strength**

#### Functional Criteria

- Extension 0: Contact surgeon if difficulty with extension to 0 (consider Dynasplint +/- Kneehab)
- Flexion 90-100
- Ambulation with brace locked in full extension without axillary crutches
- SLR with no extension/quads lag

#### Patient Education

- Remind patient that they can expect up to one hour of daily rehab from now until return to sport
- Complete home program ONCE per day
- Ambulation with brace on but unlocked for community mobility
- Brace off at home if quiet environment (no pets, young children) and off for sleep
- Continue to ice/elevate for 20 minutes once per day
- Continue patellar mobilization 5 minutes daily

#### Therapeutic Exercise

- Prone hang, heel slide with self-applied over-pressure
- Quad set, SLR, wall squat 30-60 seconds (max of 45 degrees), step up (2-4-6 inches)
- Heel raise (up on two, down on one)
- Clam shell with yellow or orange/red band
- Stationary bike with no resistance (full circles)
- Retro walking



## Criterion Based ACL Reconstruction Protocol: POSTOPERATIVE REHABILITATION

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### **WEEK 5-6: Focus quads recruitment/strength**

#### Functional Criteria

- Extension symmetrical: Contact surgeon if difficulty maintaining extension to 0 (consider Dynasplint)
- Flexion 100-120+
- Wall squat 45 degrees x60" with appropriate alignment of lower extremities with no verbal cues

#### Patient Education

- Complete home program once per day
- Discontinue use of brace for community mobility.  
**Exception:** Winter weather conditions. Continue to wear brace for outside ambulation.
- Continue to ice/elevate for 20 minutes once per day
- Continue patellar mobilization 5 minutes daily
- Educate patient that even though pain is minimal, graft is weak during this time frame.

#### Therapeutic Exercise (Focus on ROM, quads recruitment/strength, early proprioception)

- Prone hang, prone knee flexion
- SLR, wall squat, step up
- Heel raise (single leg)
- Clam shell with orange/red or green band
- Early hamstring strengthening
- Stationary bike with max resistance of 3
- Retro walking, side stepping
- Single leg balance

#### Outcome Measure

Lower Extremity Functional Scale



## Criterion Based ACL Reconstruction Protocol: POSTOPERATIVE REHABILITATION

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### **WEEK 7-8: Focus on non weightbearing activation of gluteus medius/maximus**

At this point rehab begins to strongly focus on the gluteus medius and maximus by implementing the Powers Program (Appendix 1). This is an evidence based progression of exercises designed to maximize the recruitment and strength of the gluteals.

The program consists of eight levels with three separate focuses:

- Levels 1-3: Gluteal activation/recruitment
- Levels 4-5: Gluteal strength
- Levels 6-8: Functional applications and sport specific skill acquisition

It is imperative that the therapist provides extensive education to the patient while progressing through the Powers Program. Make sure the patient feels the exercises challenging the glutes. The quads, of course, will continue to function during weight bearing exercises. The following are the necessary cues for appropriate form:

- 1) Lower extremity alignment
- 2) Hips down and back
- 3) Pelvis level
- 4) Trunk vertical (no lateral lean)
- 5) Soft landings

#### Functional Criteria

- Extension symmetrical in prone
- Flexion 140-symmetrical in prone
- GAIT ASSESSMENT: Normalized gait pattern with no gross biomechanical deviations
- STAIRS ASSESSMENT: Up/down 12 steps with reciprocal pattern/no rail with no gross biomechanical deviations

#### Patient Education

- Complete home program once per day
- Brace use only outside if winter weather conditions.
- Continue to ice/elevate for 10-15 minutes once per day
- Reiterate to patient that even though pain is minimal, graft is weak during this time frame.
- Discuss importance of gluteal strength in alignment of the lower extremity. Strong glutes = diminished strain through the knee.
- Cardio exercise:
  - Ok for stationary bike progressing from 10 to 30 minutes with max resistance of level 4-5
  - Ok to use elliptical progressing from 5 to 30 minutes. Equal time going backwards and forwards.
  - Ok to swim. Flutter kick only. **No** breast stroke or flip turns. Caution on pool deck.

#### Therapeutic Exercise

- Non weightbearing activation of gluteus medius/maximus with isometric holds (Powers Level 1)
- Hamstring strengthening
- Prone hang, prone knee flexion, ITB/gluteal stretch, gastrocnemius/soleus stretches
- Single leg balance



## Criterion Based ACL Reconstruction Protocol: POSTOPERATIVE REHABILITATION

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### **WEEK 9-10: Focus on static double leg activation of gluteus medius/maximus**

#### Functional Criteria

- Extension symmetrical in prone
- Flexion: Heel to buttock in prone or symmetrical
- Subjective report of completing clam shell with blue band for 60 seconds 5x on right and left for a minimum of three consecutive days
- Objective observation of clam shell with blue band for 60 seconds bilaterally with appropriate form

#### Patient Education

- Complete home program once per day
- Remind patient of the importance of gluteal strength in alignment of the lower extremity.
- With exercises, should feel glutes working more than quads.
- Teach patient to watch technique/form in the mirror.
  - Knee aligned over second toe.
  - Hips down and back.

#### Therapeutic Exercise

- Static double leg activation of gluteus medius/maximus (Powers level 2)
- Hamstring strengthening
- Prone hang, prone knee flexion, ITB/gluteal stretch, gastrocnemius/soleus stretches
- Single leg balance

#### Outcome Measure

Lower Extremity Functional Scale



## Criterion Based ACL Reconstruction Protocol: POSTOPERATIVE REHABILITATION

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### **Week 11-12: Focus on static single leg activation of gluteus medius/maximus and dynamic double leg strength**

#### Functional Criteria

- Continue to monitor ROM for symmetrical extension and flexion
- SQUAT ASSESSMENT: Complete 60" squat with no band with appropriate alignment of lower extremities and hips down/back with no verbal cues

#### Patient Education

- Complete home program EVERY OTHER DAY
- Reiterate to patient that even though pain is minimal, graft is weak during this time frame.
- Remind patient of the importance of gluteal strength in alignment of the lower extremity.
- Teach patient to watch technique/form in the mirror.
  - Knee aligned over second toe.
  - Hips down and back.
  - Pelvis level
  - Trunk vertical (no lateral lean)

#### Therapeutic Exercise

- Static single leg activation of gluteus medius/maximus (Powers level 3)
- Dynamic double leg strength (Powers level 4)
- Hamstring strengthening
- Prone hang, prone knee flexion, ITB/glute stretch, gastroc/soleus stretches
- Single leg balance with challenge

#### Return to Run Program (Appendix 2)

- Observe jogging in clinic. Use clinical judgment.
- If pain free and biomechanical deviations are small, cue patient and issue Return to Run Program
- If painful and/or biomechanical deviations are moderate+, reassess at next visit.





## Criterion Based ACL Reconstruction Protocol: POSTOPERATIVE REHABILITATION

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### **WEEK 14+:** Focus on dynamic single leg strength

#### Functional Criteria

- Continue to monitor ROM for symmetrical extension and flexion
- Subjective report of consistent completion of home program every other day
- Gluteus medius strength a minimum of 4/5 bilaterally
- SQUAT ASSESSMENT: Complete 15/15 functional squats with appropriate alignment of lower extremities and hips down/back with no verbal cues

#### Patient Education

- Complete home program every other day
- Remind patient of the importance of gluteal strength in alignment of the lower extremity.
- With exercises, should feel glutes working more than quads.
- Teach patient to watch technique/form in the mirror.
  - Knee aligned
  - Hips down and back
  - Pelvis level
  - Trunk vertical (no lateral lean)

#### Therapeutic Exercise

- Dynamic single leg strength of gluteals (Powers level 5)
  - Prone hang, prone knee flexion, ITB/glute stretch, gastroc/soleus stretches
  - Single leg balance with challenge
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\*This may be the stopping point in formal PT for patients with moderate+ arthritis in the knee or patients who do not desire to do any type of ballistic sporting activities. The patient should be instructed to continue with home program twice per week until the one year anniversary of surgery.

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#### Return to Weight Lifting

- Patient may begin a slow, graduated return to strength training in the gym
- Max of every other day
- Give the ok for: Leg press, prone or seated ham curls, hip abduction, squats with smith/bar, dead lifts, calf raises
- Do not start more advanced Olympic lifts at this time
- No** seated knee extension
- Two to three sets of 12-15 at appropriate weight
- Gradual increase in weight (max of 10% once per week).
- Fatigue and muscle soreness is ok. No pain in knee.

#### Outcome Measures

Lower Extremity Functional Scale

ACL – Return to Sport Index (Appendix 4)



## Criterion Based ACL Reconstruction Protocol: POSTOPERATIVE REHABILITATION

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### **WEEK 16+: Focus on ballistic double leg skill re-education**

#### Functional Criteria

- Subjective report of consistent completion of home program every other day
- STEP DOWN ASSESSMENT: Complete 10/10 step downs from 6" box with appropriate alignment of lower extremities, hips down/back, pelvis level, trunk vertical. All with no verbal cues and no visual feedback.

#### Patient Education

- Complete home program every other day
- Teach patient to watch technique/form in the mirror.
  - Knee aligned
  - Hips down and back
- Soft landings
- Most patients spend 4 weeks focused on double leg plyometrics and skill acquisition. Very few progress to single leg after only 2 weeks.

#### Therapeutic Exercise

- Ballistic double leg skill re-education (Powers level 6)
- Continue with 1 set of hip hike, single leg squat



## Criterion Based ACL Reconstruction Protocol: POSTOPERATIVE REHABILITATION

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### **WEEK 18+: Focus on ballistic single leg skill re-education**

#### Functional Criteria

- Gluteus medius strength of 5-/5 or greater bilaterally
- SINGLE LEG SQUAT ASSESSMENT: Complete 10/10 single leg squats with appropriate alignment of lower extremities, hips down/back, pelvis level, trunk vertical. All with no verbal cues.
- BROAD JUMP ASSESSMENT: Complete a triple broad jump with appropriate alignment, hips down/back, soft landings. All with no verbal cues.
- Outcome measure: Lower Extremity Functional Scale

#### Patient Education

- Complete home program every other day
- Teach patient to watch technique/form in the mirror.
  - Knee aligned
  - Hips down and back
  - Pelvis level
  - Trunk vertical (no lateral lean)
- Soft landings
- Most patients spend 4 weeks focused on single leg plyometrics and skill acquisition. Very few progress to cutting/pivoting after 2 weeks.

#### Therapeutic Exercise

- Ballistic single leg skill re-education (Powers level 7)

#### Outcome Measures

Lower Extremity Functional Scale  
ACL – Return to Sport Index

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\*This may be the stopping point in formal PT for patients who complete linear running, but no sports participation with contact, deceleration, pivoting. The patient should be instructed to continue with home program twice per week until the one year anniversary of surgery.

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## Criterion Based ACL Reconstruction Protocol: POSTOPERATIVE REHABILITATION

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### **Week 20+: Focus on cutting skill re-education**

#### Functional Criteria

-DECELERATION ASSESSMENT: Complete 3/3 deceleration-back pedal drills bilaterally with appropriate alignment of lower extremities, hips down/back, pelvis level, trunk vertical, soft landings. All with no verbal cues.

#### Patient Education

- Complete home program every other day
- Continue to focus on technique/form.

#### Therapeutic Exercise

- Cutting skill acquisition (Powers level 8)



## Criterion Based ACL Reconstruction Protocol: POSTOPERATIVE REHABILITATION

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### **Week 22+**

#### Functional Testing

-Powers Functional Test (Appendix 5)

-Step down, drop jump, lateral shuffle, deceleration, triple hop, run-cut

-Noyes Functional Test (Appendix 6)

-Single, triple, cross-over, timed hop tests

-Do not test until passed Powers Functional Test.

#### Outcome Measures

Lower Extremity Functional Scale

ACL – Return to Sport Index

\*Most patients do not pass on the first attempt of functional tests. If not passing, re-establish home exercise program to focus on areas of functional deficit. Then retest in 2-3 weeks.

\*If passing scores are obtained during functional testing, recheck with surgeon for return to sport clearance.



## Criterion Based ACL Reconstruction Protocol: POSTOPERATIVE REHABILITATION

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### Appendix

- 1 Powers Program
- 2 Return to Run Program
- 3 Lower Extremity Functional Scale
- 4 ACL – Return to Sport Index
- 5 Powers Functional Test
- 6 Noyes Functional Test



**Criterion Based ACL Reconstruction Protocol:**

**POSTOPERATIVE REHABILITATION**

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## **APPENDIX 1: Powers Program**



## **Criterion Based ACL Reconstruction Protocol: POSTOPERATIVE REHABILITATION**

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### **APPENDIX 2: Return to Run Program**





## Criterion Based ACL Reconstruction Protocol: POSTOPERATIVE REHABILITATION

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### Return to Run Program

-Run no more than every other day

-If pain is increased after a session, take TWO days off. Then repeat same session.  
Do not advance to the next level until pain free.

-If weather is good, run outside over flat ground.

-If wintery conditions, run inside on treadmill.

<b>Walk</b>	<b>Jog</b>	<b>Repeat</b>	<b>Total Time</b>
4 min	1 min	6x	30 min
3 min	2 min	6x	30 min
2 min	3 min	6x	30 min
1 min	5 min	5x	30 min
1 min	7 min	4x	32 min
1 min	10 min	3x	33 min
0	30 min	1x	30 min

-After running: Ice for 10-15 minutes



**Criterion Based ACL Reconstruction Protocol:  
POSTOPERATIVE REHABILITATION**

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**APPENDIX 3: Lower Extremity Functional Scale**



## Criterion Based ACL Reconstruction Protocol: POSTOPERATIVE REHABILITATION

### Lower Extremity Functional Scale

Circle the number that corresponds to your ability to do the following activities during the PAST WEEK.

	Extremely difficult or unable	Quite a bit of difficulty	Moderate difficulty	A little bit of difficulty	No difficulty
	0	1	2	3	4
Usual work, housework, school activities	0	1	2	3	4
Usual hobbies, recreational/sporting activities	0	1	2	3	4
Rolling in bed	0	1	2	3	4
Getting into or out of the bath	0	1	2	3	4
Walking between rooms	0	1	2	3	4
Putting on shoes or socks	0	1	2	3	4
Squatting	0	1	2	3	4
Lifting an object, like a bag of groceries, from the floor	0	1	2	3	4
Performing light activities around home	0	1	2	3	4
Performing heavy activities around home	0	1	2	3	4
Getting into or out of a car	0	1	2	3	4
Walking 2 blocks	0	1	2	3	4
Walking a mile	0	1	2	3	4
Going up or down 10 stairs	0	1	2	3	4
Standing for one hour	0	1	2	3	4
Sitting for one hour	0	1	2	3	4
Running on even ground	0	1	2	3	4
Running on uneven ground	0	1	2	3	4
Making sharp turns while running fast	0	1	2	3	4
Hopping	0	1	2	3	4

Score \_\_\_\_\_/80



**Criterion Based ACL Reconstruction Protocol:  
POSTOPERATIVE REHABILITATION**

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**APPENDIX 4: ACL – Return to Sport Index**



## Criterion Based ACL Reconstruction Protocol: POSTOPERATIVE REHABILITATION

### ACL Return to Sport Index

Circle the appropriate number for your response. Please complete all questions.

**Not at all**

**Extremely**

1. Are you confident that you can perform at your previous level of sport participation?

0 1 2 3 4 5 6 7 8 9 10

Not at all

Extremely

2. Do you think you are likely to re-injury your knee by participating in your sport?

10 9 8 7 6 5 4 3 2 1 0

3. Are you nervous about playing your sport?

10 9 8 7 6 5 4 3 2 1 0

4. Are you confident that your knee will not give way by playing your sport?

0 1 2 3 4 5 6 7 8 9 10

5. Are you confident that you could play your sport without concern for your knee?

0 1 2 3 4 5 6 7 8 9 10

6. Do you find it frustrating to have to consider your knee with respect to your sport?

10 9 8 7 6 5 4 3 2 1 0

7. Are you fearful of re-injuring your knee by playing your sport?

10 9 8 7 6 5 4 3 2 1 0

8. Are you confident about your knee holding up under pressure?

0 1 2 3 4 5 6 7 8 9 10

9. Are you afraid of accidentally injuring your knee by playing your sport?

10 9 8 7 6 5 4 3 2 1 0

10. Do thoughts of having to go through surgery and rehabilitation again prevent you from playing your sport?

10 9 8 7 6 5 4 3 2 1 0

11. Are you confident about your ability to perform well at your sport?

0 1 2 3 4 5 6 7 8 9 10

12. Do you feel relaxed about playing your sport?

0 1 2 3 4 5 6 7 8 9 10

Raw SCORE \_\_\_\_\_/12 = \_\_\_\_\_



**Criterion Based ACL Reconstruction Protocol:  
POSTOPERATIVE REHABILITATION**

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**APPENDIX 5: Powers Functional Test**



## Criterion Based ACL Reconstruction Protocol: POSTOPERATIVE REHABILITATION

### Powers Functional Test

Patient sticker

- Give the patient verbal instructions. Example: *This is a step down test. Stand on the box on your surgical leg, bend your knee, and touch your opposite heel to the ground.*
- If desired, show the patient how to do the test.
- Allow for two practice attempts – surgical leg only.
- Complete each test twice. View once from an anterior vantage point and once from a lateral vantage point. Video if desired. Document biomechanical aptitudes or faults.
- Scoring: 2 = adequate / 1 = borderline / 0 = inadequate

#### Anterior view

#### Lateral view

	<b>Hip Stability</b> (Knee(s) aligned)	<b>Pelvis Stability</b> (Pelvis level)	<b>Trunk Stability</b> (Torso vertical)	<b>Shock Absorption</b> (Soft landings)	<b>Hip Strategy</b> (Hips down and back)
1 Step Down	0 1 2	0 1 2	0 1 2	-----	0 1 2
2 Drop Jump	0 1 2	-----	-----	0 1 2	0 1 2
3 Lateral Shuffle	0 1 2	-----	0 1 2	-----	0 1 2
4 Deceleration	0 1 2	0 1 2	0 1 2	0 1 2	0 1 2
5 Triple Hop	0 1 2	0 1 2	0 1 2	0 1 2	0 1 2
6 Run Cut	0 1 2	0 1 2	0 1 2	0 1 2	0 1 2

Passing / low risk      45-50  
 Moderate risk            40-44  
 Substantial risk         <40

Score: \_\_\_\_\_/50

- 1 Patient stands on surgical limb on 6" box. Bends knee to touch opposite heel to floor.
- 2 Patient stands on 12" box. Jumps to ground, rebounds vertically, and lands.
- 3 In athletic stance, patient shuffles quickly sideways 4-5 times then rapidly changes direction. Go first toward surgical limb so that direction change takes place on affected extremity.
- 4 Run 4-6 steps forward, plant on surgical leg in single leg squat, then back pedal for 4-6 steps.
- 5 Patient completes three moderate to large forward hops on surgical limb.
- 6 Run 4-6 steps forward, plant on surgical leg in single leg squat, then cut 90 degrees and continue running forward.



**Criterion Based ACL Reconstruction Protocol:  
POSTOPERATIVE REHABILITATION**

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**APPENDIX 6: Noyes Functional Test**





## Criterion Based ACL Reconstruction Protocol: POSTOPERATIVE REHABILITATION

### Noyes Functional Test

Patient sticker

-Give the patient verbal instructions. Example: *This is a single hop for distance. Jump from your left leg to your left leg as far as you possibly can. You must land in control for at least one full second before you put your other leg down.*

-If desired, show the patient how to do the test.

-Allow for two practice attempts on each leg.

-Measure three official trials alternating legs. Record the mean and the limb symmetry index. Give the patient ample rest between tests.

-The literature advocates for 85% limb symmetry index to demonstrate preparedness for return to sport (Reid et al 2007). A referring physician may subscribe to higher standards.

#### 1. Single Hop

	Affected	Unaffected
1)	_____	_____
2)	_____	_____
3)	_____	_____
Mean	_____	_____

Limb Symmetry Index \_\_\_\_\_%

#### 2. Triple Hop

	Affected	Unaffected
1)	_____	_____
2)	_____	_____
3)	_____	_____
Mean	_____	_____

\_\_\_\_\_%

#### 3. Cross Over Triple Hop

	Affected	Unaffected
1)	_____	_____
2)	_____	_____
3)	_____	_____
Mean	_____	_____

\_\_\_\_\_%

#### 2. Timed Six Meter Hop

	Affected	Unaffected
1)	_____	_____
2)	_____	_____
3)	_____	_____
Mean	_____	_____

\_\_\_\_\_%