

Anterior Cruciate Ligament (ACL) Reconstruction Protocol (Hamstring Graft) Dr. N. Klippenstein

Important Points:

- It is important to complete the exercises as instructed 2 to 3 times per day.
- Take pain medication as prescribed by your doctor and use your cooling cuff frequently (10 to 20 minutes at a time) to help control pain.
- Elevate leg with pillows above the level of your heart if you continue to have persistent swelling.

Restrictions:

- Use your crutches for the first 3 weeks following your surgery. Concentrate on walking well without a limp.
- Avoid deep knee bends for 3 months (past 90 degrees) if your surgery included a **meniscal repair**.

0 to 3 Weeks:

- Use crutches at all times, partial weight bearing only. Focus on straightening your knee as soon as possible.
- **GOALS:** Develop range of motion from 0 to 90 degrees.

3 to 6 Weeks:

- Weight bearing as tolerated and wean yourself from your crutches. You must be able to walk without a limp and straighten knee fully before you start walking without crutches.
- You may start using a stationary bike with no tension once you have seen your physician.
- DO NOT stretch your hamstrings until 4 weeks, no hamstrings strengthening until 6 weeks.
- **GOALS:** 0 to 120 degrees of range of motion (if you have had a cartilage repair, do not bend greater than 90 degrees), light exercises with foot on the ground (see package), no limp with walking, maintain aerobic fitness (biking).



6 to 12 Weeks:

- *Your ACL graft is now at its weakest point. Continue to follow your exercises as prescribed as it is imperative that you protect your ACL during this phase.
- You may start proprioception drills and walking on the treadmill. **NO RUNNING.**
- **GOALS:** Full range of motion that is pain free, good aerobic fitness, progress strengthening of quads and hamstrings, balance progression.

3 to 6 Months:

- Full gym strengthening program, plyometric (jumping) drills, straight plane running (at 12 weeks).
- May start plyometric drills (2 foot hopping: forward, backward, side to side). Progress to single leg plyometrics as well bounding and cutting by 4 to 5 months.
- **GOALS:** Continued strengthening, increase aerobic endurance, sport specific drills.

6 Months +:

- Agility training, gradual return to sport.
- **BRACING:** Discuss with surgeon the use of a brace for return to sport.

TIMELINES (approximate):

Driving: 2 to 4 weeks (you need to be able to make a quick stop)

Work:

Sedentary -	3 weeks
Light -	4 to 6 weeks
Medium -	3 months
Heavy -	4 to 6 months

Sports:

Walking/stairs -	1 to 2 months
Light individual -	3 months
Jumping/pivoting -	6 months
High performance -	6 to 9 months

Physiotherapy HOME EXERCISES following your ACL reconstruction

Exercises 1-4 are stretches. Repeat each one 5-10 times. Do this 3 times a day. Begin these day 1.

1. KNEE STRETCH

Place a rolled up towel under your heel to stretch behind your knee. Hold this for 10-15 seconds.



2. Calf Stretch

Wrap a towel around the ball of your foot. Keep your knee straight while pulling your foot up. Hold for 20-30 seconds.



3. Knee Bending

Grasp your thigh, pull your leg towards your chest allowing the knee to bend. Hold for 20-30 seconds. Use your hands to lower your leg between reps.



4. Sitting Knee Flexion

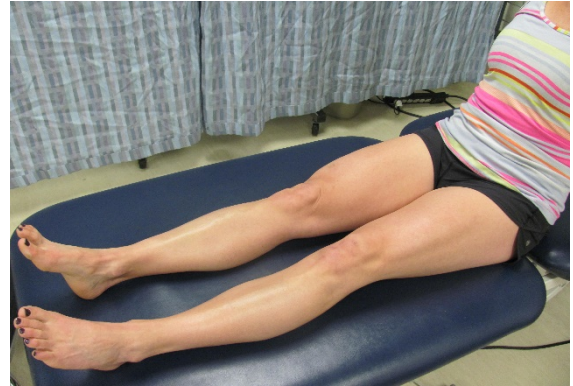
Use your good leg to help bend your knee back as far as possible. Hold for 30 seconds.



Exercises 5-10 are strengthening. Work slowly, holding each repetition for 5 seconds. Begin with one set of 10 and progress as tolerated to 2-3 sets of 10. Do 3 session of exercises a day. Begin these day 3.

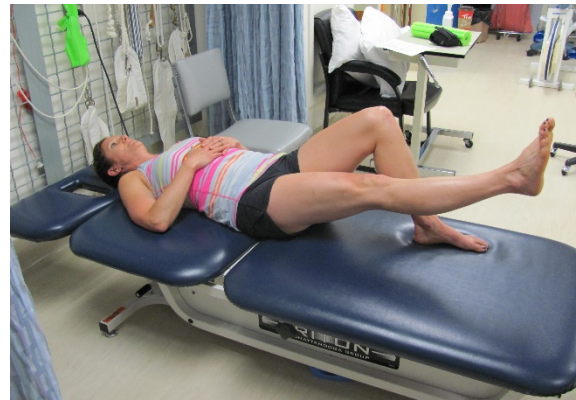
5. Static Quadriceps

Press back of knee down into bed by
Tightening your thigh muscles



6. Straight Leg Raise

Tighten muscles on the front of thigh, lift your
Surgical leg 8-10 inches while keeping knee
straight.



7. Standing Hamstring Curl

Holding the counter for balance, bend your
Knee as far as you can by lifting your foot up
Behind you.



8. Hip Abduction

With your hand on the counter for balance,
Lift your leg out to the side



9. Hip Flexion

With your hand on the counter for balance,
Lift your surgical leg forwards with your knee bent.
Lower it back down.



10. Hip Extension

With your hand on the counter for balance,
Move your surgical leg straight backwards.

