



ACL Reconstruction Protocol (Hamstring Tendon Graft/Patella Tendon Graft)

In theatre:

- Surgery Performed
- Medial para-patella incision in proximal tibia for graft harvest, usually four strand hamstrings – or midline incision for patella tendon graft.
- Arthroscopic procedure to reconstruct ligament.
- Cryocuff applied beneath cricket pad splint.

Post-Op: The afternoon after surgery.

- Toes, ankles, quads.
- Passive terminal extension (heel on towel).
- Knee flexion.
- Patella mobilisation.
- Mobilised partial weight bearing with a canvas splint and elbow crutches – patient may be non-weight bearing if they have had:
 - Microfracture.
 - Meniscal Repair .
 - Collateral repair.

Day 1 – 3

Continue with above exercises and add

- Straight leg raise.
- Active hamstrings on sliding board (patella tendon graft) passive for hamstring grafts.
- Co-contraction quads and hamstrings.
- Proprioception.
- Walking practice with crutches including stairs.
- Home exercises checked. Advised to exercise 3-4 times a day.
- Use of home ice pack explained for pain and swelling management.

Early treatment aims:

- To achieve full extension.
- To be able to straight leg raise without lag.
- To have 90° flexion before starting out patient physiotherapy at 5 – 7 days post op.

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Days 3 - 14

Discard cricket pad splint when full extension achieved with SLR, good quadriceps / VMO control and progress to full weight bearing.

- Stitches out at 10-14 days.
- Knee flexion on sliding board 0-110°.
- Bilateral heel raises.
- Mini squats.
- Low step ups.
- Hamstring exercises.
- Patella mobilisations.
- Maintenance of terminal extension.
- Proprioception.
- Static bike as range permits.
- General leg exercises, hip add/Abd. and gluts.
- **No inner range quads for 12 weeks.**
- Gait re-education – wean off splint and crutches.

2 Week Post-Op Goals

- Full quads activation.
- ROM 0-110°.
- Minimal joint effusion (esp. am).
- Full weight bearing.
- Function – cycling.

Check all exercises are performed with knee positioned over centre of foot including cycling.

Hamstring Grafts

- Gentle hamstring stretches at first outpatient appointment.
- Prone SLR.
- Bike without toe clips.

2 – 6 Weeks

Start class regime as a precursor to entering ACL class. Enter class as soon as can perform necessary exercises.

- Full range of movement.
- Closed kinetic chain exercises.
- Theraband exercises.
- Progress proprioception work.
- Stretches, quads, hamstring and calf.
- VMO exercises.
- Swimming – avoid breaststroke until 3/12.

6 Week Post-Op Goals

- Controlled balance – single leg.
- Full range of movement.
- Minimal activity related effusion.
- Function – Power stepper
Road cycling.

Hamstring grafts

- Open hamstring curls at 2-3 weeks depending on comfort.
- If hamstring becomes aggravated treat as muscle tear i.e. stretches, frictions, electrotherapy.

6-12 Weeks

12 Week Post-Op Goals

- Increase difficulty - all exercises.

Hamstring grafts

- Resisted hamstring curls commenced around 6 – 8 weeks if comfortable.

- Equal strength hip and gastroc muscles and hamstrings if patella tendon graft.
- Equal Proprioception on trampet – single leg.
- Function – jogging.

12 – 16 Weeks

- Return to solo sports when have good strength, control and proprioception.
- Leg extension with weight - keep weight low initially.
- Running activities.
- 180° jump on floor / trampet / mat.

16 – 24 Weeks

Return to training for specific sport including:

- Figure of 8 running.
- Shuttles.
- Hopping.
- Vertical jumps.

6 – 9 Months

Earliest return to contact sport.

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