

## ACL RECONSTRUCTION PROTOCOL

Name of Protocol/Regime	Consultant	Updated On	Updated By	Review Date
<b>ACL Reconstruction</b>	Mr Dawson	5/5/16	Barbara Pinguey/ Rachael Edgar	6/18

**Please note that surgeons may have different post op instructions which must be adhered to**  
**Inpatients**

WT BEARING STATUS	Therapy Guidelines
<ul style="list-style-type: none"> <li>Normally Immediate FWB unless otherwise stated in post op notes</li> </ul>	<ul style="list-style-type: none"> <li>FWB means reduced incidence of AKP, improves quads activity, benefits for cartilage nutrition also</li> <li>Return to driving 6/52 if can emergency stop (if can stamp on floor with no pain)</li> <li><b>No open chain quads until 16/52 (for ACL)</b></li> </ul>

### Pre Op / Day of surgery

- Check post-op sheet!
- Provide Initial ACL booklet which includes exercises (advice: stop exercises if increased pain/heat/swelling)
- Advice on no open chain exercises
- Cryotherapy / advice on ice
- Provide Elbow crutches and ensure safe mobility for discharge
- Complete out-patient physiotherapy referral and attach post op notes to referral

### On discharge from ward

- Photocopy op. notes to attach to referral.
- Plan for D/C, refer to outpatients and complete D/C summary.
- Refer to OT for ADL's as required.
- Ensure that the patient has the ACL booklet.

### **Outpatients – Operation notes must be attached**

Post-op 0-2 weeks Phase 1 (Early post op phase)	
Goals	Therapy Guidelines
<ul style="list-style-type: none"> <li>Control pain</li> </ul>	<ul style="list-style-type: none"> <li>Exercises started immediately as reduced</li> </ul>



<ul style="list-style-type: none"> <li>• Control swelling</li> <li>• Restore full knee extension and maintain ROM</li> </ul>	<p>strength, pelvic control, LL stability, neuromuscular control and poor technique are implicated in early OA or injury.</p> <ul style="list-style-type: none"> <li>• SLR (only if no lag) because increased shear forces at joint if quads weakness</li> <li>• Aim for flexion 90-110 degrees in 1-2/52</li> <li>• Ax ankle/hip as weakness/reduced ROM can increase load on knee</li> <li>• Encourage VMO activation</li> <li>• Discuss realistic time frames as per protocol</li> <li>• Be aware of hams vulnerability</li> <li>• No open chain quads exercises for 16/52</li> </ul>
--	--

**Exercises**

- Heel slides flexion /extension
- Static Quads / Patella flicks
- Passive Knee extension
- SLR (Only if no lag)
- Knee flexion in sitting
- Core stability – Trans abs activation
- Gastroc. stretches and strengthening

**2 – 6 weeks post-op**

**Goals**

1. Increase Control
2. Ensure full extension and near full flexion
3. Improved Gait pattern – Wean off crutches
4. Early proprioceptive work
5. Restore normal gait pattern

**Exercises**



**2 - 3 weeks**

- Closed chain quads – Wall slides / sit to stand / half squat at bar
- Single leg standing (if no lag)
- Core stability – trans abdominus / hip hitching / glute medius

**3 - 4 weeks**

- Bike High seat
- Step ups unaffected leg first
- Heel Raises
- Hamstrings in side lying (hip neutral, not flexed)
- Side lying hip ext (leg extended)
- Wobble board work (both feet on board) / wii fit balance
- Walking forwards/backwards/sideways

**4 – 5 weeks**

- Wobble board tilting forward / back / side
- Prone hamstrings with Theraband (patella tendon graft only – avoid if hamstrings graft)
- Steps ups both legs
- Hip Extension / abduction with Theraband resistance
- Single leg trampette balance

**5 – 6 weeks**

- Stepper (little pressure)
- Hams bench (patella tendon only)
- Single leg heel raise
- Gym Ball – Balance, leg over ball / Bridging (no single leg extension i.e no open chain)

**6 week communication letter via email to Consultant**

<b>6-8 weeks post-op</b>	
<b>Goals</b>	<b>Therapy Guidelines</b>
<ul style="list-style-type: none"> <li>• Proprioceptive work</li> <li>• Aim normal gait</li> </ul>	<ul style="list-style-type: none"> <li>• Graft is at its weakest between 6-12 weeks as regaining blood supply/can take up to 3 months for graft incorporation: must discuss this with patient as patient will be feeling stronger and more confident at this vulnerable stage</li> <li>• Graft donor site to be treated as a tear, therefore initial exercises need to concentrate on recruitment and regaining length rather than resistance</li> </ul>
<b>Exercises</b>	



**6 – 7 weeks**

- Stepper – increasing pressure
- Single leg dips
- Wheely Chair Pulls forwards (patella tendon graft only – if pain free)
- Rower
- Prone Hamstrings with theraband (hamstring graft)
- Step ups holding weight

**7 – 8 weeks**

- Treadmill walking
- Straight lunges
- Wheely Chair pulls forwards (hamstring graft – if pain free)
- Single leg trampette + ball throw and catch

**8-12 weeks post-op**

Goals	Therapy Guidelines
<ul style="list-style-type: none"> <li>• Proprioceptive work</li> <li>• Aim normal gait</li> </ul>	<ul style="list-style-type: none"> <li>• Graft is at its weakest between 6-12 weeks as regaining blood supply/can take up to 3 months for graft incorporation: must discuss this with patient as patient will be feeling stronger and more confident at this vulnerable stage</li> <li>• Graft donor site to be treated as a tear, therefore initial exercises need to concentrate on recruitment and regaining length rather than resistance</li> </ul>

**Exercises****8 – 9 weeks**

- Hams bench (hamstring graft)
- Gym ball - bridge with heel raise and lateral shift
- Step on bench jump off
- Dribble ball around cones
- Treadmill jogging (if good proprioception and control)

**9 – 10 weeks**

- Single leg wobble board / Hedgehog
- Straight shuttle runs
- Skip

**10 – 11 weeks**

- Two footed jumping if OK jogging
- Side Lunges
- Wobble board Eyes closed
- Gym ball Hams Curls

**11 – 12 weeks**

- Squat to touch floor and spring up
- Trampette jog and jump off (no twist)

**12-15 weeks post-op**

**Exercises****12 - 13 weeks**

- Gym Ball bridging – Leg extension non operated leg, balance and heel raise operated leg

**14 & 15 weeks**

- Wheely chair pulls backwards
- Mini trampette and twist

**16-17 weeks post-op****Goals**

- Commence open chain exercises
- Increase strength / proprioception / control to facilitate discharge

**Therapy Guidelines**

- Increase resistance gradually with open chain (0.5kg weekly)
- Need 5/5 MRC quads to return to high level activity
- Patient must not experience pain or show signs of limping at any time whilst running
- Pain and swelling must be abolished as they can inhibit muscle activation

**Exercises**

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Start Quads bench</li> <li>• Bench pulls backwards</li> <li>• Running around cones</li> <li>• Hopping</li> <li>• Single leg Squats</li> <li>• Trampette jog and jump off with twist</li> </ul> | <ul style="list-style-type: none"> <li>• Grapevines</li> <li>• Bounding forwards</li> <li>• Step overs</li> <li>• Gym Ball bridging alternate legs</li> <li>• Jog and floor touches side</li> </ul> |
|---|---|

**RETURN TO SPORT ON CONSULTANTS CONSENT.**

**PROGRESS AS CLINICALLY APPROPRIATE WITHIN GUIDELINES.**

