

ACL REHABILITATION PROGRAMME

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| Rehabilitation consists of: | <ul style="list-style-type: none"> • Daily exercises (done 2 to 3 times daily). • Stretching (to be done daily). • Strength training (3 / 4 times weekly) starting week 3. • Balance exercise / Perturbation training. • Plyometric exercise. • Sport specific activity and drills. • Return to sport screening tests by physiotherapist at 9 months post-surgery (this is done to ensure the patient is ready to return to contact sport). <p>NB:</p> <ul style="list-style-type: none"> - For the first 6 months post-surgery, no repetitive terminal extension allowed. Open chain exercises restricted to 90° – 60° only for four months. For a further 2 months 90° – 30° only. - No active hamstring exercise for the first 4 weeks. |
| Week 1 and 2 | <ul style="list-style-type: none"> • Daily exercises: <ul style="list-style-type: none"> ○ Foot pump exercise. ○ Self-tightening quads. ○ VMO activation in prone lying (tummy lying). ○ SLR – back lying. ○ Heel slide, sitting 90°. ○ Clam exercise (if pain-free). ○ Hip abduction – side lying, knee 90° (progress to knee extended). ○ Knee extension standing with theraband. ○ Hip extension standing. ○ Hip abduction in standing. ○ Hip flex (straight knee) standing. ○ Wall slide (once daily only). ○ Toe raises. ○ Balance, toe standing both legs. ○ Balance, flat foot one-leg. ○ RICE. ○ Stretch: Passive knee extension – ‘torture pillow’ (20 minutes, 3 times daily). <p>All exercises 3 x 8 to 15.</p> |
| Week 3, 4 and 5 | <ul style="list-style-type: none"> • Daily exercises: <ul style="list-style-type: none"> ○ Self-tightening quads. ○ SLR – lying or sitting (add ankle weight if necessary). |



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| | <ul style="list-style-type: none"> ○ VMO sitting on a chair. ○ VMO in long sitting. ○ Heel slide, sitting 110°. ○ Hip abduction – side lying, knee extended (add ankle weight when ready). ○ Hip extension / abduction in standing (add ankle weights when ready). ○ Gluteus medius – side lying, hip in external rotation (toes pointing up). ○ Back lying wall slide. ● Stretching: <ul style="list-style-type: none"> ○ Dynamic stretching, sciatic nerve. ○ Passive knee extension stretch ('torture pillow'). ○ Stretching of hamstrings and quads (use towel for quads if necessary). ● RICE. ● Stationary bike (no resistance, 15 to 20 minutes daily). ● Strength exercise: <ul style="list-style-type: none"> ○ Mat exercise -1: Buttocks (gluteus maximus): Repeated bridge with feet firmly on the floor. Progress to bridge on heels. ○ Mat exercise 1: Strengthen buttocks: one leg pelvis lift (bridge) – repeat lifts. ○ Mat exercise -2: Hamstrings: Bridge and hold position "shift" feet back / forth 1 – 2 cm. ○ Mat exercise 2: Strengthen hamstrings: one leg pelvis lift (bridge) and hold for 15 seconds, progress to curling toes up and balancing on heel (week 5). ○ Mat exercise 3: Strengthen quads, hands on floor, one leg standing, knee flex (difficult exercise) – week 5 only. ○ Hamstring exercise 1 in prone (inner to middle range only) – week 5. ○ Step-ups – forward and side. ○ Squats - 45°. ○ Wall slide - 45°. ○ Toe raises. ○ Stationary bike. ○ Walking on treadmill backwards. All exercises 3 x 15. ● Perturbation training: <ul style="list-style-type: none"> ○ Balance on one leg, open and closed eyes (hold for 10 second intervals). ○ Balance on wobble board – both legs (hold for 10 second intervals). ○ Balance standing on operated leg, slide good leg front / back and side. |
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| <p>Week 6, 7 and 8</p> | <ul style="list-style-type: none"> • Stretching: <ul style="list-style-type: none"> ○ Passive knee extension stretch. ○ Stretch hamstrings, quadriceps, iliotibial band and calves. ○ Dynamic knee stretch – sciatic nerve. • RICE. • Stationary bike – increase duration and resistance as tolerated. • Strength exercises: <ul style="list-style-type: none"> ○ Mat exercise 1+ buttock – using step. ○ Mat exercise 2+ hamstrings – pelvic lift and slide both feet or “run” on heels. ○ Mat exercise 3+ quads – knee to touch floor. ○ Hamstring exercise 1+ in prone with light weight / theraband (TB). Progress to outer range. ○ Hamstring curls in standing position with theraband (TB). Progress through ranges. ○ Additional hamstring exercises – supine lying, pelvic lift using big gym ball, pull ball towards buttocks. Progress through range. ○ Leg extensions / leg abduction in standing (ankle weights if necessary). ○ Gluteus medius exercises: <ul style="list-style-type: none"> 1. Side lying leg lifts (toes pointing upwards). 2. Figure 4 in (lying / standing). 3. 7 4 7 drill. 4. One-leg squat “hand to floor”. ○ Squat – 45° to 90° as pain allows. ○ Wall slide – 45° to 90°. ○ Step-ups / Step-downs. ○ One leg squats off step – only if patient is ready. ○ Squats on incline board. ○ ‘Crab-walking’. ○ Toe raises. ○ Abduction / adduction (abd. / add.) machine at the gym. • Perturbation training: <ul style="list-style-type: none"> ○ Advance exercises: <ul style="list-style-type: none"> ▪ Skateboard. ▪ One leg standing – flex trunk forward / back. ▪ 7 4 7 drill. • Trampoline work – week 8. <p>All exercises 3 x 15.</p> |
| <p>Week 9, 10 and 11</p> | <ul style="list-style-type: none"> • Daily stretching: <ul style="list-style-type: none"> ○ Stretch of quads, hamstrings and iliotibial band. • Strength exercises: <ul style="list-style-type: none"> ○ Mat exercise 1++ buttock - using ball – hands behind head. ○ Mat exercise 2++ hamstring – pelvic lift and one leg |



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| | <p>slide (good leg off the floor).</p> <ul style="list-style-type: none"> ○ Mat exercise 3++ quads, hands standing on one leg, knee flex off step. ○ Hamstring exercise 1++ in prone with weight. ○ Hamstring curls in standing with weight. ○ Hamstring exercise using gym ball. ○ Squats (introduce weight). ○ One leg squat. ○ Wall slides (introduce weight). ○ Gluteus medius exercise as per weeks 6 – 8 (then add weights). ○ Leg extensions / abduction in standing (increase weight). ○ Leg press. Consult with your physiotherapist regarding range of movement for this exercise. ○ Toe raises. ○ Abduction / adduction machine. <ul style="list-style-type: none"> ● Perturbation training: <ul style="list-style-type: none"> ○ Balance 1 leg, bend down 3-12-9 o' clock. ○ Balance 1 leg on wobble board – head rotation / ball game. ○ Advanced balance exercise on skateboard. |
| Week 12, 13 and 14 | <ul style="list-style-type: none"> ● Strength training 3 to 4 time weekly with physio and at gym: <ul style="list-style-type: none"> ○ Mat exercise 1, 2 and 3 as per week 9, 10 and 11. ○ Hamstring exercise 1 in prone – can use gym machine. ○ Hamstring curl machine at gym (sitting / standing). ○ Leg extensions / abduction with bands or weights. ○ Squats and wall slides – increase weight / one leg wall slide. ○ Dead lifts – be careful with correct technique. ○ Leg press – concentric work both legs, eccentric work operated leg only. ○ Toe raises. ● Stretching. ● Advanced perturbation training. ● Plyometric training: (Only if patient is pain free on these drills) <ul style="list-style-type: none"> ○ Side / forward / back jumps over towel – 2 legged – progress to operated leg only when tolerated. ○ Twist both legs (soft knee). ○ Jump-ups sideways, 1 leg – onto step. ○ Jump-ups forwards / backwards, 1 leg onto step. ○ Skipping forwards 30m. ○ Skipping with rope. |
| Progression over the next 3 months: | <ul style="list-style-type: none"> ● Strength training: <ul style="list-style-type: none"> ○ Squats and wall slides: <ul style="list-style-type: none"> ▪ Increase weight. ▪ Squat with one leg – introduce weight when tolerated. ▪ Variation squats, i.e. non-affected leg up on chair – squat with jump. ▪ Squat on wobble board. ○ Leg press – increase to more explosive exercise. |



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| | <ul style="list-style-type: none"> ○ Hamstring curls prone / sitting / standing using machine – increase weight. ○ Toe raises – increase weight. ○ Dead lifts – increase weight. ○ Lunges - progress to weight and reverse lunges. ● Advanced perturbation training. ● Plyometric training: <ul style="list-style-type: none"> ○ One leg sideways and forwards onto step, increase pace and step height. ○ Plyometric jumps “Burpies”. ○ High jumps. ○ Combination jumps. ● Running: <ul style="list-style-type: none"> ○ Circle. ○ Skate and direction change: 4 to 5 months. ● Sport specific drills. ● Agility drills, i.e. cones, figure-of-eight. |
| Cardiovascular Exercise: | |
| Stationary bike | 4 to 6 weeks. |
| Treadmill | Backwards at 3 weeks, and forwards at 8 weeks. |
| Road bike | 16 to 20 weeks. |
| Elliptical machine | 8 weeks. |
| Swimming (crawl) | 12 weeks. |
| Jogging in a straight line | 16 to 20 weeks. |
| Running on an uneven surface | 6 to 7 months. |
| Biokinetics | 4 months. |
| Golf | 6 months. |
| Cutting drills | 9 months. |
| Contact sport | 9 to 12 months. |



Good luck with your rehabilitation.

