

Anterior Cruciate Reconstruction

MR JONATHAN SPENCER

BSc(Hons), MBBS, FRACS, FAOrthA

The aim of surgery is to reduce pain, improve function, improve overall quality of life and mobility. Overall success rate is 95%.

What to Expect

- 1-2 days in hospital
- 2 weeks of swelling and discomfort requiring significant pain killers
- 6-12 weeks for reasonable recovery
- 6-12 months for a good to full recovery

Possible Complications of Surgery

- Wound infection
- Deep joint infection
- Deep vein thrombosis (DVT)
- Fracture
- Nerve injury
- Failure of reconstruction
- Revision surgery
- Heart attack
- Chest infection
- Pulmonary embolism

Risks

- 5% chance of minor complication
- 0.5-1% chance of serious complication
- Risk of dissatisfaction with the outcome of surgery

Post Operation Wound Care

- Keep wool and crepe bandages on for 24 hours after the operation.
- Keep wounds clean, dry and covered for 2 weeks or until the wound is completely healed. If the dressings get soaked through, they will need to be changed.
- Do not soak the incision (ie. bath or pool) until the wound is completely healed.
- Mr Spencer mainly uses dissolvable stitches.
- If you have any concerns about your wound please contact Mr Spencer's rooms.

After your Anterior Cruciate Reconstruction : A Rehabilitation Guide

Committing to a rehabilitation programme after your operation is essential to a good outcome. The time frames below are approximate, vary between individuals and are best guided by Mr Spencer or your Physiotherapist. Notes in italics below are guidelines intended for your Physiotherapist.

Initially closed chain exercises (where the foot is fixed e.g. squatting) are performed to minimize any strain on the graft.

Weeks 0-2 Aim: Knee Bend 90 degrees, straighten as much as able

- Wear Richard Splint for 2 weeks (at night only) to help you achieve a straight leg.
- Use crutches for the first 2 weeks and weight bear as comfortable, aim for as close to "normal" walking as possible i.e. similar step length on each side. Progress off crutches as you are able to.
- Minimize swelling. In the first 2 weeks, rest as often as you can with your leg in elevation (ideally your leg should be higher than your heart). You can use a compression bandage (such as doubled Tubigrip). Minimise activities that make your swelling worse, such as excessive walking, for the first 6 weeks.
- Minimise pain. Ensure adequate pain relief medication. Use ice on your knee for 15-20 minutes 3-4 times/day (including after exercises). Continue to check that your skin is ok whilst using ice.
- Regain full straightening of your knee as soon as you are able to.
- Regain as much knee bend as you are able to.
- When resting your leg, ensure your knee is straight.
- Do exercises 3-4 times/day. Try to perform exercises with minimal pain. Ease off exercises if they cause an increase in pain and/or swelling.
- *If a Hamstring graft has been performed, don't overstress the Hamstrings with exercises for at least 6 weeks.*
- *Example Exercises - ankle pumps in elevation, knee flexion in sitting/long sit/prone, knee extension (eg 2 minutes 3 x/day) - towel under heel +/- VMO activation, +/- weight on knee; prone hangs, calf stretch, VMO activation long sit, co-contraction hamstrings and quadriceps throughout 0-30 degrees (pain free hamstring contraction), maintain hip strength, start proprioception exercises.*

Weeks 2-6 Aim: Knee bend 120 degrees, full straightening by 4 weeks

- Weight bear as much as you are able to and wean off crutches as able.
- When stair climbing/walking, do it slowly to ensure as much symmetry as possible.
- You may be able to return to work during this period. This is job dependent, discuss this with Mr Spencer. Try to continue to elevate your leg at work to avoid an increase in swelling.
- Driving may be possible if you feel safe and competent to do so. You may need to check with your insurance company to ensure that you're covered to drive.
- Start stationary bike if your knee range allows a full rotation of the pedals (normally at least 70 degrees of knee flexion). Gradually increase the duration and then the resistance over time as your pain allows.
- From 4 weeks onwards (and once the wound is 100% healed) you can start an aquatic exercise programme (if desired) as guided by a Physiotherapist.
- *Start Hamstring stretch. No isolated Hamstring resistance exercises until at least 6 weeks after your operation.*
- *Gait pattern: aim for knee extension with heel strike.*
- *Progress functional, closed chain exercises as able to improve VMO control (mini squat, modified lunge) wall slides, ball squats, proprioception exercises. No open chain kinetic exercises.*
- *Maintenance exercises for core strength and gluteals.*

Anterior Cruciate Reconstruction

MR JONATHAN SPENCER

BSc(Hons), MBBS, FRACS, FAOrthA

6-9 weeks Aim: Continue to achieve knee range of movement

- Swimming with a pull buoy between legs will help to maintain your cardiovascular fitness and upper body strength.
- 8 weeks: Stepper Machine, Rowing Machine, Cross Trainer.
- 8 weeks start a supervised, progressive walking programme on alternate days. Initially on a flat surface, start slowly with rests as required and increase duration.
- 8-10 weeks: Bike ride on the path/road (if you feel safe).
- *Closed kinetic chain (fixed foot) strengthening of muscles stabilising the knee (leg press, steps, lunges, squats) Progress to unilateral squat if controlled.*
- *Proprioception exercises for knee progressing from 2 to 1 leg stance and eyes closed, start to challenge base of support and centre of gravity. Aim for operated leg to equal opposite side with proprioception, strength, range of movement.*
- *Start hamstring strengthening.*

10-12 weeks

- Swim with a light kick, straight legs, no frog kick.
- Weeks 10-14: Start a supervised jogging programme. Straight lines, flat surface, start with 1 km (or less) and gradually increase if painfree. Aim for good proprioception and good knee control with a jump, land, single squat before beginning jogging. Progress speed and duration slowly as able.
- *Continue to increase strength, balance and proprioception exercises.*
- *Add lateral movements such as sideways squats, side step, grape vine, hopping.*

3-5 months

- Knee has essentially returned to normal with everyday activities.
- 4 months onwards: Introduce breaststroke/frog kick.
- Low impact step exercises classes.
- *Strength and agility exercises, sport specific activities/exercises.*
- *Open chain exercises allowed.*

6 months +

- *Sports specific training and exercises: dynamic control, change in direction, COG and BOS sport specific exercises, figure 8 running, change direction with cones, interval training with sprints, variable pace, backward running in safe environment.*
- Return to sport as advised by Mr Spencer or your Physiotherapist. Ensure sport warm up involves alignment and proprioception work to help prevent further injury.

No contact sport until 9 months post operation (discuss further with Mr Spencer).