

Dr Louis Shidiak

MBBS FRACS FAOrthA
B Appl Sc (Physiotherapy)

Hip & Knee Surgeon
Joint Replacement
Hip Arthroscopy Surgery
Hip Preservation

specialtyorthopaed

Anterior Cruciate Ligament Reconstruction

Rehabilitation Programme

Day 1-14 AIM

- Reduce post-operative pain, control effusion and minimise effects of surgery on soft tissue.
- Restore normal gait.

GOALS

- Reduce joint effusion.
- Prevent infection / facilitate wound heal.
- Re-establish muscle activation.
- Restore full extension.
- Manage donor site morbidity.

NB

- NO open chain quad exercises.

TREATMENT STRATEGIES

- Partial weight bearing to full weight bearing as tolerated.
- Use of ICE, co-contractions and external pressure support to control pain and swelling.
- Static squats, co-contraction (Progressing into weight bearing positions) NB quadriceps exercises are to be closed kinetic chain.
- Active range of motion aiming for full extension by 2 weeks post-surgery.
- Prevent secondary patella-femoral joint problems (patella mobilisation, myofascial Releases ITB etc).
- Retrain full extension at heel strike.
- Gentle hamstring stretches.

Two- Six weeks

AIM

- Restore normal function.

GOALS

- Restore normal function.
- Reduce persistent effusion.
- Early proprioceptive retraining.
- Develop muscle control and endurance.

Dr David Duckworth
Shoulder & Elbow

Dr Peter Gray
Hip & Knee

Dr Ali Gürsel
Hip & Knee

Dr Roderick Kuo
Foot, Ankle & Trauma

Dr Adrian Low
Shoulder & Knee

Dr Jun Nagamori
Sports Knee

Dr Nicholas Smith
Hand & Upper Limb

Dr James Sullivan
Hip & Knee

Dr Sunny Randhawa
Hip, Knee & Trauma

Dr Louis Shidiak
Hip & Knee

Dr Mohammed Babalola
Shoulder, Elbow & Hand

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TREATMENT STRATEGIES

- Improve muscular control by progressing co-contractions e.g. Two-leg quarter squats, step-ups, lunges.
- Introduce stationary bike, stepper and squats as tolerated (do not start these activities until any persistent effusion settles).
- Swimming once wound has healed.

Three-Four weeks

Initially hamstring strengthening is achieved via co-contraction (closed kinetic chain). It is important to concentrate on hamstring stretches & increase resistance gradually to prevent recurrent injury.

Four to Six weeks

Open kinetic chain hamstring strengthening may begin but care must be taken to avoid strain injury as it impedes progress. Low resistance, high repetition weights to increase muscles endurance.

Assessment and monitoring of gluteal control and length hamstrings, ITB, gastrocs and soleus etc. will avoid secondary deficits from developing.

Proprioception

Six – Twelve weeks

AIM

- Improve proprioception

GOALS

- Improve endurance of leg musculature.
- Increase total leg strength.

TREATMENT STRATEGIES

- Progress co-contractions to more dynamic movements.
- Dynamic proprioception retraining.
- Straight line jogging allowed at 12 weeks.
- Hamstring strengthening aimed at increased power and speed of contraction.
- Cycling on normal bicycle.
- Muscle endurance training.
- Cardiovascular Fitness.

Twelve weeks- Five months

AIM

- Prepare to return to sport.

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GOALS

- Introduce more sport specific activities.
- Develop patient confidence.
- Introduce agility and reaction time into proprioception work.

TREATMENT STRATEGIES

- Progress general strength work.
- Hopping and jumping introduced into proprioceptive retraining (focus on good landing technique).
- Agility work (shuttle runs, ball skills, sideways running, skipping ropes etc).
- Pool work may commence with flippers
- Sports specific activity (sport dependant)

Five- Six months

GOALS

- Return to sport safely

TREATMENT STRATEGIES

- Open kinetic chain quadriceps and exercises can be done safely
- Introduce plyometrics and sport specific drills
- Return to training and participating in skill exercises
- Improve power and endurance
- Advice re: Modification for gradual return to sport

Prepared by Dr Louis Shidiak

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