

Sports Physicians

Dr Donald Kuah
Dr Ameer Ibrahim
Dr Scott Burne
Dr Corey Cunningham
Dr Seamus Dalton

Physiotherapy

Kingsley Gibson
Brent Kirkbride
Tom Donaldson
Adam Kable
Robert Mullard
Melanie Tri
Joe Zhang
Henry Jones

Stages	Objectives	Rehabilitation Exercises
Stage 1 0-4 weeks	<ul style="list-style-type: none"> • Protect integrity of repaired tissue • Restore ROM within restrictions • Reduce pain and inflammation • Maintain gait pattern with appropriate aids • Restore normal standing and sitting postural alignment <p>To progress to Stage 2:</p> <ul style="list-style-type: none"> • Minimal pain with all stage 1 exercises • Able to side lying SLR • ROM $\geq 75\%$ of the uninvolved side with no pinching into flexion • -ve trendelenburg • Cleared for full weight bearing 	<p>Range of Motion:</p> <p>Passive ROM exercises within surgical post-operative restrictions – emphasize IR</p> <p>Heel slides</p> <p>Quadruped rocking</p> <p>Exercise bike – high saddle, nil resistance</p> <p>Abduction in standing</p> <p>Half kneeling pelvic tilts</p> <p>Strength/Function:</p> <p>Static glute and adductor squeezes</p> <p>Quad/Hamstring co-contraction</p> <p>Short lever hip flexion</p> <p>SLR: supine and side lying</p> <p>Core with hips centred – supine pilates mat work</p> <p>Proprioception:</p> <p>Weight shift / single leg balance</p> <p>Pelvic tilts</p> <p>Gait:</p> <p>Crutch walking</p> <p>Part practice – weight acceptance, hip ext at toe off</p>
Stage 2 4-8 weeks	<ul style="list-style-type: none"> • Address pre-disposing factors contributing to excessive load on anterior hip structures. • Protect integrity of repaired tissue • Restore full ROM • Restore normal gait pattern • Progressively increase muscle strength <p>To progress to Stage 3:</p> <ul style="list-style-type: none"> • Nil pain with ADLs • ROM $\geq 90\%$ of the uninvolved side • Pain-free/normal gait pattern • Hip flexion strength $>60\%$ of the uninvolved side • Hip add, abd, ext, IR, ER strength $>70\%$ of the uninvolved side • Normal gait pattern with no pain 	<p>Range of Motion:</p> <p>Stationary bike – increase resistance as tolerated</p> <p>Stretching – hip flexor, piriformis adductors, quad, h/s, calves</p> <p>Strength/Function:</p> <p>Focus on low load closed chain functional exercises</p> <ul style="list-style-type: none"> - Mini-squats - Glute bridges +/- theraband <p>Progress core with hips centred – supine pilates mat work</p> <p>Standing hip abduction and extension</p> <p>Proprioception:</p> <p>Weight shift</p> <p>Single leg balance – progress surface difficulty (foam mat/dyna-disc)</p> <p>Gait:</p> <p>Part practice</p> <p>Progressively increase walking load</p>

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Stages	Objectives	Rehabilitation Exercises
Stage 3 8-12 weeks	<ul style="list-style-type: none"> Restoration of muscular endurance/strength Restoration of cardiovascular endurance Optimize neuromuscular control/balance/proprioception <p>To progress to Stage 4:</p> <ul style="list-style-type: none"> Hip flexion strength >70% of the uninvolved side Hip add, abd, ext, IR, ER strength >80% of the uninvolved side Cardiovascular fitness equal to preinjury level Demonstration of initial agility drills with proper body mechanics 	<p>Range of Motion: Stretching – hip flexor, piriformis, adductors, quad, h/s, calves</p> <p>Strength/Function: Progress core with hips centred – supine pilates mat work, side bridges Glute bridge progressions Squats +/- theraband, single leg drop squats Stationary lunges Crab walks</p> <p>Plyometrics: DL landing to SL landing progressions Low intensity DL jumping with controlled landing</p> <p>Proprioception: Single leg balance – utilising bosu, wobbleboard, UL tasks, clock balance Walking balance tasks</p> <p>Gait: Begin grass running progressions</p> <p>Cardiovascular fitness: Stationary bike with resistance, pool swimming – no breast stroke kick.</p>
Stage 4 12-18 weeks	<ul style="list-style-type: none"> Return to competition Generalised strength and conditioning <p>Return to sport testing:</p> <ul style="list-style-type: none"> Hip flexion, add, abd, ext, IR, ER strength >90% of the uninvolved side Hip Flexion >90 degrees Completion of functional sports test as attached Ability to perform sport-specific drills at full speed without pain Gradual return to training 	<p>Strength/Function: Squats Lunges Deadlifts Single leg glute bridges</p> <p>Plyometrics: SL hopping Box jumps Progress jumping/hopping/landing drills incorporating multi-directional movement</p> <p>Proprioception: Sport-specific and coordination balance work</p> <p>Gait: Running drills Agility drills Increase running load Sport-specific drills</p>

Return to Play Protocol for Hip Arthroscopy

These tests are helpful in determining if a patient can return to full training. These tests are to be done by the treating therapist. No medication to the injury can be used during any of these tests. It is assumed that the patient has passed all relevant clinical testing not mentioned in this document before these tests are performed.

Hop Tests:

- The athlete must demonstrate no more than a 15% difference compared to the uninjured side. (Or >90% LSI)
- The athlete must not exhibit symptoms of pain or instability during the tests.
- A trial is discounted if the athlete falls or touches the ground with the opposite limb.

1) Single hop (for distance)

- Athlete performs a single leg broad jump and must stick the landing. Measure the distance from start to finish for 3 trials.

2) Triple hop (for distance)

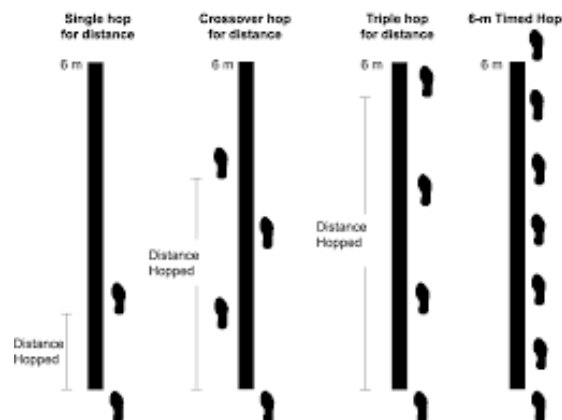
- Athlete performs a single leg triple hop for distance and must stick the landing. The athlete must not stop in between hops. Measure the distance from start to finish for 3 trials.

3) Triple Cross-over hop (for distance)

- Athlete performs a single leg cross over triple hop across a line and must stick the landing. The athlete must not stop in between hops and must not touch the line. Measure the distance from start to finish for 3 trials.

4) Timed 6 metre hop

- Athlete performs consecutive single leg hops over a 6 metre distance for speed. The athlete must stick the landing. Time the performance from start to finish for 3 trials.



5) Single leg 20cm Jump landing

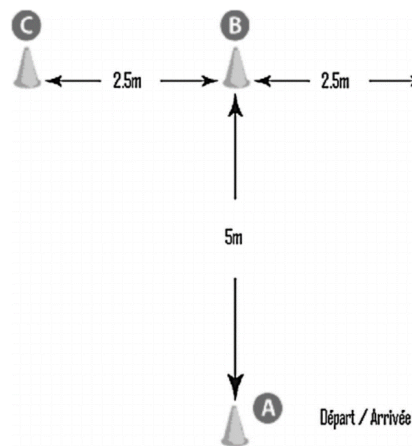
Stand on one leg and perform a jump, landing off a 20cm box. The landing must be held for 5 seconds with balance maintained. The entire sequence is to be completed with good mechanics including proper landing stance, knees flexed and in line with foot, level pelvis, and vertical alignment of trunk.

6) Single Leg Vertical jump for height

Stand on one leg, unsupported, sideways next to a wall. Bend your knees and jump as high as possible. Tap your hand on the wall at the maximum vertical height. One practice trial is given for each limb. Perform two alternating trials on the unaffected and affected sides. The vertical height is measured and the averages recorded for the L and R legs.

7) Agility T-Test

Set up 4 cones as per diagram below. Time entire sequence. Look for time of approximately less than 11 seconds and exhibiting symmetry between sides.



8) Star Excursion

The goal of this test is to maintain single-leg balance on one leg while reaching as far as possible with the contralateral leg in three different directions. The three movement directions are anterior, posteromedial and posterolateral, performed on each leg. Therefore there are six tests to be performed, in the following order:

- Right Anterior Reach
- Left Anterior Reach
- Right Posteromedial Reach
- Left Posteromedial Reach
- Right Posterolateral Reach
- Left Posterolateral Reach

9) Single Leg Squat

Start with hands across the chest. Standing on 1 leg, squat down as far as comfortable in a slow controlled manner x 5 repetitions at a rate of 1 squat per 2 seconds.

Failure if excessive:

- Loss of balance
- Trunk rotation or lateral flexion
- Lateral deviation or rotation of the pelvis
- Hip adduction or internal rotation
- Knee valgus