



AUCKLAND BONE AND JOINT SURGERY

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PROXIMAL FEMORAL OSTEOTOMY (PFO) REHABILITATION PROTOCOL

GENERAL GUIDELINES

- Formal physiotherapy does not typically commence until 6-8 weeks after surgery
- Focus on protecting osteotomy position during bone healing
- Mr. Boyle may alter time frames for use of crutches
- Supervised physiotherapy takes place for 4-6 months after surgery
- Mr. Boyle will typically arrange for clinical review and x-rays at 6 weeks, 12 weeks, 6 months and 12 months after surgery. Follow up will continue after that point via email/phone or clinical visits

GENERAL PROGRESSION OF ACTIVITIES OF DAILY LIVING

- No bathing/tub/pool (shower only) until 4 weeks after surgery.
- No driving until: 4 weeks for automatic transmission cars, left leg surgery
 8-12 weeks for manual transmission cars, or right leg surgery
- Use of crutches for ambulation for 6-8 weeks until adequate bone healing on x-ray
- Weight bearing: 0-6 weeks post-op: touch WB with crutches
 6-8 weeks post-op: if bone healing satisfactory, full WB, wean crutches
- Return to work after 2-4 weeks as directed by physiotherapist/Mr. Boyle based on work demands

REHABILITATION PROGRESSION:

Frequency of physiotherapy visits should be determined based on individual patient status and progression. The following is a general guideline for progression of rehabilitation following proximal femoral osteotomy (PFO). Progression through each phase should take into account patient status (e.g. healing, function) and surgeon advisement. Please consult Mr. Boyle if there is any uncertainty concerning advancement of a patient to the next phase of rehabilitation.

PHASE I:

Begins immediately post-op through approximately 6 weeks

Goals:

- Protect osteotomy position and screw fixation
- Minimize effects of immobilization
- Control inflammation and swelling
- Patient education on rehabilitation progression

Weightbearing Status:

- 0-6 weeks: touch WB with two crutches

Exercises:

- No formal physiotherapy or exercises during first 6 weeks after surgery
- Patient to move hip through restricted ROM as instructed during hospital admission
- Supine ROM only (no standing exercises), avoid pain, ROM limitations:
 - Hip flexion 10°-90°; IR 15°; ER 15°; abduction 15°; adduction 15°
- No strengthening exercises

PHASE II:

Begins approximately 6 weeks post-op and extends to approximately 8 weeks post-op.

Criteria for advancement to Phase II include:

- Healing evident on x-rays
- Minimal swelling/inflammation

Goals:

- Increase weight bearing from touch WB to full WB
- Slowly improve hip ROM
- Protect osteotomy position and screw fixation
- Commence proprioception training

Weightbearing Status:

- 6-8 weeks: full WB with two crutches; progressively wean off crutches

Exercises:

- Gentle gravity-eliminated hip ROM exercises (pain free), increase range as comfort allows
 - Heel slides
 - Isometric abduction & adduction
 - Supine abduction & adduction
- Prone lying to increase hip extension (lying over a pillow initially)
- Educate patient on weaning from crutches over two-week period if possible
- Aquatic/pool therapy if possible (extreme care entering and exiting water)
 - Walking in waist deep water (equivalent to partial WB)

- Stationary bike from week 6 if comfort allows (elevated seat, no resistance)

PHASE III:

Begins at approximately 8 weeks and extends through approximately 12-14 weeks.

Criteria to advance to Phase III include:

- Healing evident on x-rays
- No or minimal hip pain

Goals:

- Regain full hip range of motion
- Improve strength and proprioception of the lower extremity
- Avoid overstressing the osteotomy position and fixation

Exercises:

- Continue flexibility and hip ROM exercises as appropriate for patient
- Commence anti-gravity hip ROM exercises, including:
 - Standing hip flexion, abduction, adduction & extension
 - Bridges
 - Resistance ROM with theraband if pain allows
- Stationary bike (elevated seat, gradually increase resistance)
- Aquatic/pool therapy if possible (extreme care entering and exiting water)
 - Walking in waist deep water
 - No swimming
- Continue proprioceptive education to assist mobilization and gait

PHASE IV:

Begins at approximately 12-14 weeks and extends through 5-6 months post-op.

Criteria for advancement to Phase IV:

- Healing evident on x-rays
- Full, pain-free hip ROM
- No evidence of hip flexor inflammation

Goals:

- Regain full, symmetric strength and proprioception

Exercises:

- Progressive resisted exercises, depending on patient strength
 - Side-lying hip abduction and adduction
 - Standing hip flexion, abduction and extension
 - Bridges
 - Resistance ROM with theraband
- Continue to progress flexibility and hip ROM

- Stationary bike (elevated seat, gradually increase resistance)
- Stationary bike (lower seat as comfort allows, continue to increase resistance)
- Aquatic/pool therapy if possible
 - Walking in waist deep water
 - Commence freestyle kick and freestyle swimming (no breaststroke until 6 months)

PHASE V:

Begins at 5-6 months post-op and extends as required.

Criteria for advancement to Phase V:

- Healing complete on x-rays
- Full, pain-free hip ROM
- Symmetric hip strength (flexion, abduction, adduction, extension)
- Surgeon clearance to resume sport-specific training

Goals:

- Safe return to sport/athletics
- Maintenance of strength, endurance, proprioception

Exercises:

- Continue strengthening program based on individual needs and deficits
- Initiate plyometric program as appropriate for patient's athletic goals
- Commence and progress agility exercises including, but not limited to:
 - Side steps
 - Crossovers
 - Figure 8 running
 - Shuttle running
 - One-leg and two-leg jumping
 - Cutting
 - Acceleration/deceleration/sprints
 - Agility ladder drills
- Progress swimming as comfort allows
- Commence jogging and progress running distance based on comfort and patient needs
- Initiate sport-specific drills as appropriate for patient
- Gradual return to sports participation
- Maintenance program for strength and endurance

ROM = range of motion; WB = weight bearing; IR = internal rotation; ER = external rotation