

Periacetabular osteotomy

Phase I: Protective Phase

Weeks 1-4

Goals

- Control pain
- Neutralize muscle atrophy
- Promote healing of tissues

Precautions

- Touch-down weight-bearing (20 to 30 pounds)
- Avoid prone lying
- Minimize active hip flexion
- Hip flexion range of motion (ROM) limited to 30 to 80 degrees
- Sleep with pillows under involved leg

Suggested exercises



Glute sets



Quad sets



Hamstring sets



Isometric hip adduction

Other exercises to add:

- Ankle pumps
- Isometric hip abduction
- Transverse abdominis activation

Phase II: Early Mobilization Phase

Weeks 4-8

Goals

- Increase ROM within tolerance
- Neutralize muscle atrophy
- Control pain

Precautions

- Touch-down weight-bearing during Weeks 6-8 (physician discretion)
- Gentle ROM within tolerance
- Lay prone if lacking hip extension
- Avoid exercises with long lever arms (no single-leg raises)

Joint mobilizations



Long axis distraction



Inferior femoral glides

- Grade III and IV joint mobilizations may be performed to increase ROM; long axis distraction may be performed for pain

Suggested exercises



Supine hip abduction



Supine bridging



Standing hip abduction



Standing hip extension



Standing hip adduction



Standing hip flexion



Side-lying clams

Other exercises to add:

- Bike for cardio (no resistance)
- Hamstring curls
- Seated marching

Phase III: Progressive Strengthening Phase

Weeks 8-12

Goals

- Normalize gait in full weight-bearing (FWB)
- Regain muscle strength and symmetry

Precautions

- Progress to FWB per physician clearance

Suggested exercises



Prone hip extension



Side-lying hip abduction



Supine hip flexion



Single-leg bridging



Mini squats



Step-ups



Wall sits

Other exercises to add:

- Side-lying hip adduction
- Single-leg stance
- Leg press
- Progress core stabilization
- Gradually add resistance to bike

Phase IV: Functional Strengthening Phase

Weeks 12-16

Goals

- Progressive functional strengthening

Precautions

- Progress strengthening within pain tolerance

Suggested exercises



Single-leg squat



Single-leg deadlift



Lunges

Phase V: Return-to-Sport Phase

Week 16 and beyond

Goals

- Improve cardiovascular endurance
- Continued functional strengthening
- Sport-specific training

Precautions

- Criteria to begin running progression:
 - Cleared by physician
 - Non-antalgic normalized gait pattern
 - Patient performs single-leg squat with proper mechanics (no trendelenburg, dynamic genu valgum or lateral trunk lean)

Suggested exercises

- Agility drills
- Plyometrics
- Sport-specific training
- Running progression

Discharge criteria:

- Run with non-antalgic gait and no trendelenberg
- Cutting and agility drills performed with proper form and no hesitation on involved side
- Performance of jumping activities with proper mechanics
- Physician clearance