



Periacetabular Osteotomy Rehabilitation Guidelines Dr. Thomas Ellis, MD

Immediate Post-Operative Phase (Post Op Weeks 1-4)

Goals of Phase

- Protect osteotomy sites, control pain and edema, minimize atrophy

Precautions

- Partial flat-foot weight bearing < 20 lbs. for 6 weeks
 - Avoid hip flexion >90 degrees
 - Avoid long lever LE exercises
- *Depending on procedure other ROM restrictions may apply*

Frequency: 1x/1-2 weeks

Suggested Interventions

- Bilateral lower extremity circulation and muscle activation
- Specific gluteal/abdominal muscle activation and retraining
- Gait training per weightbearing precautions
- Supine bent knee fall ins/outs within protected ROM (<20°)
- Pain free gentle circumduction PROM
- Cryotherapy/compression

Criteria to Progress to Intermediate Phase of Rehab

- Good tolerance to low level interventions
- Pain well-controlled (<3/10 on 11-point pain scale)

Early Post-Operative Phase (Post Op Weeks 4-6)

Goals of Phase

- Protect osteotomy sites, control pain and edema, minimize atrophy, restore ROM

Precautions (continue per Phase 1)

- Continue foot flat protected weightbearing (<20 lbs. weightbearing)
- No flexion >90 with exercise
- Avoid active hip flexion

Recommended Exercises

- Continue interventions from Phase I as appropriate
- Submaximal isometrics adduction/abduction in hook lying position
- Short lever pain free A/AAROM within protected ROM
- Short arc knee extension
- Standing hip abduction within pain-free ROM
- Pool walking in chest deep water once incision fully healed
 - Begin with 10 minutes progressing x 5 min as tolerated

Frequency: 3 days/week with rest day between sessions until tolerance improves

Criteria to Progress to Intermediate Phase of Rehab

- Physician clearance to begin WBAT
- Pain well-controlled (<3/10 on 11-point pain scale) free ROM

Intermediate Phase (Post Op Weeks 6+)

Goals of Phase

- Increase hip A/PROM, improve hip and LE strength, improve balance, improve proprioception, normalize gait pattern without AD

Precautions

- Monitor for joint and soft tissue inflammation
- Criteria to d/c crutches for community ambulation:
 - \geq 30 seconds of SLS balance without loss of pelvic height
 - 10 repetitions of correctly performed prone hip extension test
 - Score of 0-1 on active hip abduction test

Frequency: 1-2x/week

Suggested Interventions

- Low resistance upright bike
- Hip and LE strength progression (bilateral to single leg)
- Core stability progression (utilizing transitional positions)
- Gait training

Example Exercises

- Prone hip extension
- Bridges
- Standing TKE
- Leg press
- Clamshells with resistance
- Quadruped hip extension
- Single leg balance
- Chop/lift patterns in half kneeling
- Step up/step downs
- Double and single leg squats with suspension trainer
- Single leg deadlift

Criteria to Progress to Late Phase of Rehab

- Negative Trendelenberg Test
- Pain free with ADLs
- Normalization of gait pattern without AD
- Community ambulation without fatigue or symptoms

Late Postoperative Phase

Goals of Phase

- Control body in multiple planes and tolerate low impact plyometric activities, asymptomatic with recreational activity

Precautions

- Avoid provocation of symptoms with exercise progression

Frequency: 2x/week

Suggested Interventions

- Multi-directional hip and lower extremity strengthening progression
- Progression of core stabilization
- Low impact plyometrics
- Structured walk-jog interval program
- Low intensity agility drills

Example Exercises

- Single leg mini squats with multidirectional LE reach
- Reduced weight bearing hopping on shuttle
- Side shuffle
- Progressive hopping drills

Criteria to Progress to Return to Sport

Phase of Rehab

- Full and pain-free strength
- Full and pain-free ROM
- No reactive pain or inflammation with therapeutic interventions
- Ability to perform unilateral functional activities without compensatory patterns or deviation