### Acetabuloplasty

This protocol should be used as a guideline for progression and should be tailored to the needs of the individual patient.

- Weight bearing as tolerated, use crutches to normalize gait.
  - \* Crutches are usually discontinued at 5-7 days, once gait is normalized.
- Strict impact precautions unnecessary, but functional progression may still be protracted because of severity of associated damage.
  - May still need to be delayed for 12 weeks to minimize exacerbation of symptoms.
- Always use pharmacologic prophylaxis against heterotopic ossification (unless contraindicated.)
  - · Quiz patient
  - Must initiate and maintain immediately postop

### PHASE 1:

WEEK 1

### Initial Exercise (Weeks 1-3)







Glut sets

# Initial Exercises (Weeks 1-3)



Quad sets



Heel slides, active-assisted range of motion



Hamstring sets



Log rolling



Adductor isometrics



Pelvic tilt

# Initial Exercises (Weeks 1-3)



Trunk rotation



Seated knee extensions



Double leg bridges



Prone on elbows



Weight shifts – sitting, supported, anterior/posterior, lateral



Prone knee flexion

## Initial Exercises (Weeks 1-3)



Standing abduction without resistance



Standing flexion without resistance



Standing adduction without resistance

### Other Exercises Week 1

- Seated heel lifts
- Standard stationary bike without resistance at 3 days post-op (10 min. if tolerated)
- Upper body ergometer, upper body strengthening



Standing extension without resistance



Pain dominant hip mobilization - grades I, II

# In Addition to Previous Exercises (Weeks 1-3)



Abduction isometrics



Seated physioball progression – knee extension



1/4 Mini squats



Hip flexion, IR/ER in pain-free range



Standing heel lifts



Theraband resistance on affected side – Abduction (start very low resistance)

## In Addition to Previous Exercises (Weeks 1-3)



Theraband resistance on affected side – Adduction (start very low resistance)



Theraband resistance on affected side – Flexion (start very low resistance)



Theraband resistance on affected side – Extension (start very low resistance)



Superman

#### Other Exercises Week 2

- Wall mini-squats
- Physioball mini-squats with cocontraction
- Pool exercises (water walking, range of motion, march steps, lateral steps, backward walking, mini-squats, heel raises, hamstring and hip flexor stretches)

# In Addition to Previous Exercises (Weeks 1-3)





Stiffness dominant hip mobilization – grades III, W



Clamshells (pain-free range)



Leg raise - Abduction



Double leg bridges to single leg bridges



Leg raise – Extension

## In Addition to Previous Exercises (Weeks 1-3)



Shuttle leg press 90 degree hip flexion with cocontraction of adductors



Seated physioball progression - hip flexion



Dead bug



Forward walking over cups and hurdles (pause on affected limb), add ball toss while walking



Quadriped 4 point support, progress 3 point support, progress 2 point

#### Other Exercises Week 3

- Continue stationary bike with minimal resistance 5 min. increase daily
- Active range of motion with gradual end range stretch within tolerance
- Leg raise Adduction
- Single leg sports cord leg press (long sitting) limiting hip flexion

## In Addition to Previous Exercises (Weeks 1-3)

### Goals of Phase 1

- ☐ Restore range of motion
- ☐ Diminish pain and inflammation
- ☐ Prevent muscular inhibition
- $\square$  Normalize gait

### Criteria for progression to Phase 2

- ☐ Minimal pain with phase 1 exercises
- $\square$  Minimal range of motion limitations
- $\square$  Normalized gait without crutches

### PHASE 2: WEEKS 4-5

## Intermediate Exercises (Weeks 4-6)



Crunches



Standing theraband/pulley weight – Abduction



Bosu squats



Standing theraband/pulley weight – Adduction

PHASE 2: WEEKS 4-5

## Intermediate Exercises (Weeks 4-6)



Standing theraband/pulley weight – Flexion



Clamshells with theraband



Standing theraband/pulley weight – Extension



Sidestepping with resistance (pause on affected limb), sports cord walking forward and backward (pause on affected limb)



Single leg balance – firm to soft surface

#### Other Exercises Weeks 4-5

- Gradually increase resistance with stationary bike
- Initiate elliptical machine
- Pool water exercises flutterkick swimming, 4 way hip with water weights, step-ups

### Intermediate Exercises (Weeks 4-6)



Leg press (gradually increasing weight)



Physioball hamstring exercises – hip lift, bent knee hip lift, curls, balance



Superman on physioball – 2 point on physioball

#### Other Exercises Week 6

- Single leg balance firm to soft surface with external perturbation (ball catch, sports specific/simulated ex.)
- Knee extensions, hamstring curls

### Goals of Phase 2

- ☐ Restore pain-free range of motion
- ☐ Initiate proprioception exercises
- ☐ Progressively increase muscle strength and endurance

### Criteria for progression to Phase 3

- ☐ Minimum pain with phase 2 exercises
- ☐ Single leg stance with level pelvis

PHASE 3: WEEKS 7-8

## Advanced Exercises (Weeks 7-8)



Step-ups with eccentric lowering



Side steps over cups/hurdles (with ball toss and external sports cord resistance), increase speed



Lunges progress from single plane to tri-planar, add medicine balls for resistance and rotation



Single leg body weight squats, increase external resistance, stand on soft surface



Theraband walking patterns – forward, sidestepping, carioca, monster steps, backward, ½ circles forward/backward – 25 yds. Start band at knee height and progress to ankle height

#### Other Exercises Weeks 7-8

- Full squats
- Single stability ball bridges

#### Goals for Phase 3

- ☐ Restoration of muscular endurance/strength
- ☐ Restoration of cardiovascular endurance
- ☐ Optimize neuromuscular control/balance/proprioception

PHASE 3: WEEKS 7-8

### Advanced Exercises (Weeks 7-8)

### Criteria for Progression to Phase 4

- ☐ Single leg mini-squat with level pelvis
- ☐ Cardiovascular fitness equal to preinjury level
- ☐ Demonstration of initial agility drills with proper body mechanics

PHASE 4: WEEKS 9-11

## Sports specific training rehab clinic based progression



Single leg pick-ups, add soft surface

### Other Exercises Weeks 9-11

- All phase 3 exercises
- Pool running (progress from chest deep to waist deep), treadmill jogging
- Step drills, quick feet step-ups (4-6 inch box) forward, lateral, carioca
- Plyometrics, double leg and single leg shuttle jumps
- Theraband walking patterns 1 rep of six exercises x 50yds, progress to band at knee height and ankle height

PHASE 4: WEEKS 12 & BEYOND

### Sports specific training rehab clinic based progression

### Other Exercises Weeks 12 & Beyond

- Running progression
- Sport specific drills
- Traditional weight training

#### Criteria for full return to competition

- $\Box$  Full range of motion
- ☐ Hip strength equal to uninvolved side, single leg pick-up with level pelvis
- ☐ Ability to perform sport-specific drills at full speed without pain
- ☐ Completion of functional sports test