



Post-Arthroscopic Rehabilitation of the Hip


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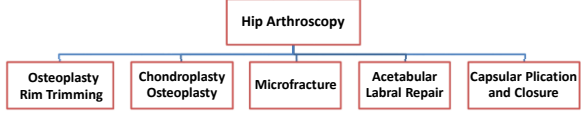
Outline

- Hip Arthroscopy menu
- Rehabilitation phases
 - Goals
 - Precautions
 - Activity & exercise interventions
 - Criteria for advancement
- Return to activity

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Types of Arthroscopic Surgery



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            graph TD
            A[Hip Arthroscopy] --> B[Osteoplasty Rim Trimming]
            A --> C[Chondroplasty Osteoplasty]
            A --> D[Microfracture]
            A --> E[Acetabular Labral Repair]
            A --> F[Capsular Plication and Closure]
            
```


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Phases of Rehab

- PHASE I – Immediate
 - Weeks: 1 – 4
 - 6-8 weeks if microfx
 - Maximum Protection and Mobility
- PHASE II - Intermediate
 - Weeks: 4 - 10
 - Gait
 - Controlled Stability
 - Closed Chain Activity


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Phases of Rehab

- PHASE III – Advanced
 - Weeks: 10 - 16
 - Strengthening
- PHASE IV – Return to Function Progression
 - Weeks: 16 – beyond
 - Activity Specific
 - Return to sport test
 - ~16-20 weeks

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Immediate Exercises: PHASE I

Maximum Protection and Mobility

Weeks 1 – 4 (6-8 weeks microfx)

Goals

- Protect integrity of repaired tissues
- Diminish pain and inflammation
- Restore passive range of motion within restriction
- Prevent muscular inhibition
- Patient education

Precautions

- Specific ranges of motion (based on restrictions)
- Weight bearing activity (based on restrictions)
- Hip pain and pinching

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Range of Motion Limitations

Based on Procedure and Post Operative Prescription


	Osteoplasty	Chondroplasty	Microfracture	Acetabular Labral Repair	Capsular Plication
Weightbearing	FFWB (~20 lbs or 1/6 BW)				
Flexion	90° x 10 Days			120°: 21 D	
Extension	Gentle x 10 D	0° x 3 Weeks		>0° after 21 D	
External Rot	Gentle x 3 Wks	0° x 3 Weeks		0° x 21 D	
Internal Rot	No Limit				
Abduction	25° x 3 Wks	35° x 3 Weeks		45° x 2 Wks	
Bledsoe Brace	0 - 90° x 10 Days			0-105° x 21 D	

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PROM



- Circumduction, circumduction, cir.....
- CPM



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More little ex.

- Tummy time
- Opposite knee to chest/post. pelvic tilt

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Immediate Exercises: PHASE I

Maximum Protection and Mobility

- Stationary bike with min resistance
 - Upright posture to ↓ flexion
 - Gait progression – crutch weaning as appropriate
 - Foot straps
- Stretches
 - Posterior chain – hamstrings, gastroc/soleus
 - Piriformis w/o ER

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Immediate Exercises: PHASE I

Maximum Protection and Mobility

- Exercises
 - Quadruped rocking
 - Isometrics – abd, add, glute squeezes
 - Prone heel squeezes
 - Active prone IR – stool rotations
 - Clamshells/ closed when approp.
 - Heel slides
- Careful w/ active hip flexion as able


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Immediate Exercises: PHASE I
Maximum Protection and Mobility: **Quadruped Rolling**




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Immediate Exercises: PHASE I
Maximum Protection and Mobility: **Clamshells & Lat Raise**

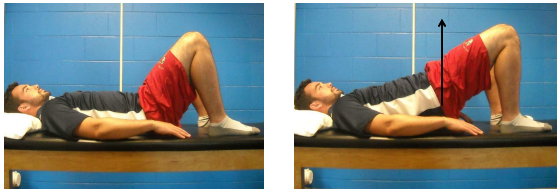


Note ROM limits




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Immediate Exercises: PHASE I
Maximum Protection and Mobility: **Glute Bridges**



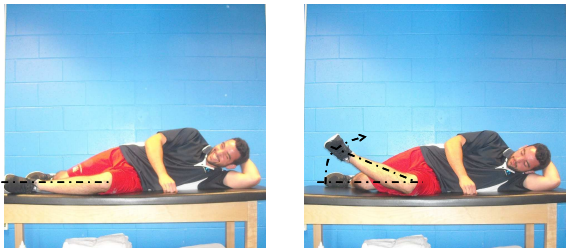
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Immediate Exercises: PHASE I
Maximum Protection and Mobility: **Heel Squeeze, Side Plank**



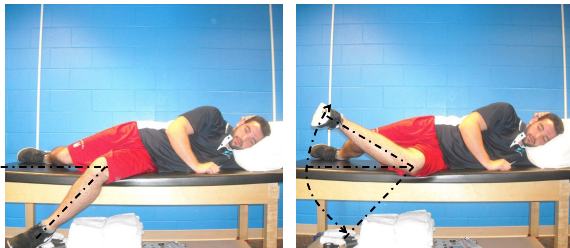
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Immediate Exercises: PHASE I
Maximum Protection and Mobility: **Inverted Clam Shells**



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Immediate Exercises: PHASE I
Maximum Protection and Mobility: **Inverted Clam Shells**



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Immediate Exercises: PHASE I
Maximum Protection and Mobility

Progression Criteria to Phase 2: Controlled Stabilization

- Minimal pain with all phase I exercise
- ROM \geq 75% of the uninvolved side
- Proper muscle firing patterns for initial exercises
- Do not progress to phase II until full weight bearing is allowed
 - Phase 1 and 2 overlap


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Immediate Exercises: PHASE I
Maximum Protection and Mobility: Stick Series

- Late Phase 1 \rightarrow Phase 2

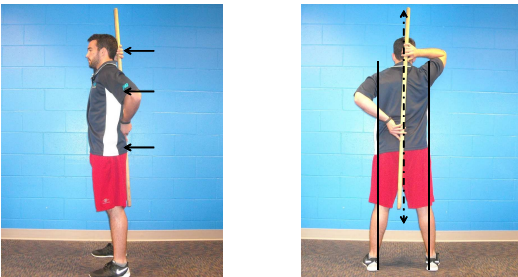
Stick Series/Hip Hinge

- still 50% WB



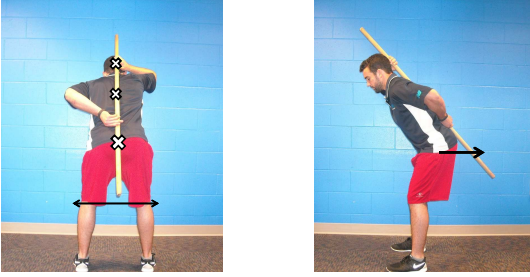
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Immediate Exercises: PHASE I
Maximum Protection and Mobility: x3 Pts of Contact



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Immediate Exercises: PHASE I
Maximum Protection and Mobility: Stick Hip Hinge



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Intermediate Exercises: PHASE II
Controlled Stabilization and Gait/Closed Chain

Weeks: 4 – 10 Gait
Stability
Closed Chain Activity

Goals

- Normalize gait
 - Correct muscle imbalances
- Restore full range of motion
- Improve neuromuscular control, balance, and proprioception
- Initiate functional exercises maintaining trunk and pelvic stability

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Intermediate Exercises: PHASE II
Controlled Stabilization and Gait/Closed Chain

Weeks: 4 – 10 Gait
Stability
Closed Chain Activity

Precautions

- Range of motion (based on restrictions)
- Pain in the hip or pinching
- No treadmill use
- No ballistic or forced stretching

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Intermediate Exercises: PHASE II
Controlled Stabilization

- **Activities**
 - Continue PROM
 - Crutch weaning (if not already)
 - Progress stationary bike
 - Joint mobilizations – 6-8 weeks prn
- **Exercises (progress from previous phase)**
 - Balance progression
 - Sing leg/dynadisc/ foam
 - Knee bends/mini-squat

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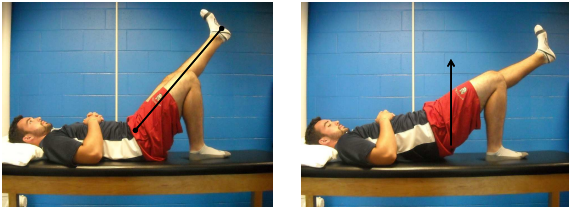
Intermediate Exercises: PHASE II
Controlled Stabilization

- **Exercises**
 - Advanced trunk
 - Planks
 - Side stepping
 - Hamstring Concentric
- **Endurance**
 - Bike, elliptical

Stick Series Progression: Single Leg Activation

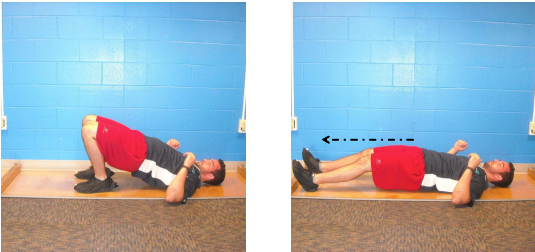
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Immediate Exercises: PHASE II
Controlled Stabilization: **Bridge Progression**



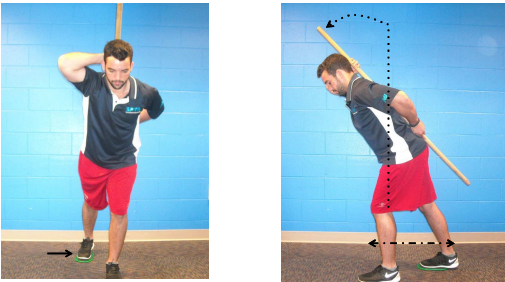
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Intermediate Exercises: PHASE II
Controlled Stabilization: **Eccentric Hamstring**



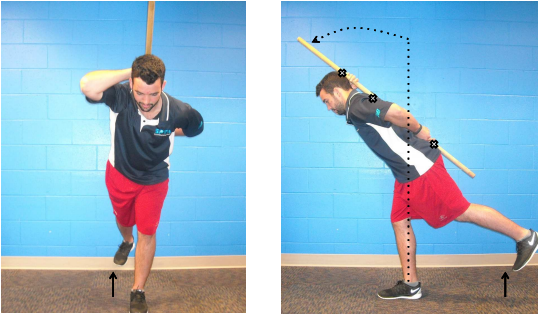
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Intermediate Exercises: PHASE II
Controlled Stabilization: **Stick Hinge Progression**



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Intermediate Exercises: PHASE II
Controlled Stabilization: **Stick Hinge Progression**



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Intermediate Exercises: PHASE II
Controlled Stabilization: Stick Hinge Progression

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Intermediate Exercises: PHASE II
Controlled Stabilization

Progression Criteria to Phase 3: Advanced Strengthening

- Full range of motion
- 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

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Advanced Exercises: PHASE III
Strengthening

Weeks: 10- 16

Goals

- Correct residual muscle imbalances
- Restore normal gait pattern
- Tolerate early phases of functional activity
- Prepare for return to participation

Precautions

- Treadmill use not recommended
- Gradual progression to activity
- Avoid hip flexor, adductor and piriformis irritation
- No contact activities

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Advanced Exercises: PHASE III
Strengthening

Exercises (progress from previous phase)

- Stairs
 - Step downs/single leg balance
- Squat Progression
 - Single leg/assisted/machine
 - Lunges
 - Lateral dynamic stability

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Advanced Exercises: PHASE III
Strengthening

Exercises

- Introduce power, agility, quickness
 - Late stage III
 - Ladder
 - Cones
 - Box jumps
 - Slideboard

Stick Series Progression

- Rotation, Chair Squat / Hip Activation

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Advanced Exercises: PHASE III
Strengthening: Advanced Stick Hinge: Rotation

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Advanced Exercises: PHASE III
 Strengthening: Advanced Stick Hinge / Squatting

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Advanced Exercises: PHASE III
 Strengthening: Advanced Stick Hinge / Squatting

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Advanced Exercises: PHASE III
 Strengthening: Band Walk Series

Return to Function: PHASE III
 Strengthening: Sliding Lunge

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Advanced Exercises: PHASE III
 Strengthening

Progression Criteria to Phase 4: Return to Function

Being medically cleared per MD

- Hip flexion strength >70% of the uninvolved side
- Hip add, abd, ext, IR, ER strength >80% of the uninvolved side
- Cardiovascular fitness approaching preinjury level
- Demonstration of initial agility drills with proper body mechanics

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Return to Function: PHASE IV
 Activity Specific

Weeks: 20 - beyond

Goals:

- Monitor exercise tolerance as volume and intensity increase
- Address any hip/trunk stability or mobility issues that might remain
- Continue to increase cardiovascular exercise
- Progress dynamic balance activities
- Pass functional movement/activity testing


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Return to Function: PHASE IV
Activity Specific

- **Activities**
 - Continue PROM/joint mobs prn
 - Progress cycling/elliptical/running
- **Exercises**
 - Full speed ladder
 - Full speed cones
 - Sport specific drills
 - Full slideboard training
 - ...

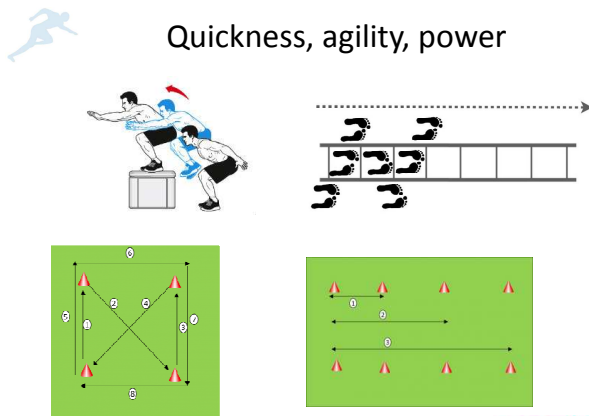
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Return to Function: PHASE IV
Activity Specific: Dynamic Slide Board



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Quickness, agility, power




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Criteria for RTP

- Full ROM p. free
- Complete movement testing
- Sport specific drills at full speed w/o pain
- Completion of functional sport test
 - ex. **VAIL SPORT TEST™**
- Cleared by surgeon




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Vail Sport Test



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Longer Term Precautions

- Avoid treadmill
- Squat load & depth ?
- Cost v. benefit of activity

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Thank you !!



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