TENNESSEE ORTHOPAEDIC CLINICS

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Abductor Repair Protocol

Arthroscopic Surgery: Therapist Information

Please read entire protocol prior to initiating therapy

Please do not hesitate to contact Dr. Ivie with questions or concerns.

Rest is a vital component of recovery from hip arthroscopy. **Less is more.**

Manual therapy (including modalities, dry needling, ART, etc.) is an important part of recovery. The initial weeks of therapy should focus on manual treatment and gait/crutch training.

Utilize the exercise descriptions as a guide. They are not intended to serve as a substitute for clinical decision-making; adjust within given guidelines and precautions as needed.

Patients' progression will vary widely. It is rare to have a patient progress through this rehab protocol without setbacks.

Do not feel obligated to do every exercise in the protocol.

Good recovery depends on the therapist and patient monitoring the effects of each particular exercise. **If it hurts, don't do it!** – regardless of the time from surgery.

LESS PAIN=MORE GAIN!

Phase I: Weeks 1-6

Initially, therapy sessions should be dedicated to manual techniques and gait/crutch/walker training. Isometrics should be completed at home.

Goals:

- Diminish pain and inflammation
- Protect integrity of repaired tissue
- Restore Range of Motion (ROM) within restrictions
- Prevent muscular inhibition
- Restore normal gait

Precautions:

Do not push through hip pain or pinching

No distraction or joint mobilizations in this phase

No scar massage using lotions until incisions are completely healed

ROM restrictions for first 12 weeks (unless otherwise noted):

- Flexion limited to 90 degrees
- **AB**duction limited to 30 degrees
- Internal rotation limited to 20 degrees at 90 degrees of flexion
- External rotation limited to 30 degrees at 90 degrees flexion
- Prone internal rotation and log roll no limits
- Prone external rotation limited to 20 degrees
- Prone hip extension limited to 0 degrees

  No abduction strengthening.

  Otherwise, patient should stay in a comfortable range

- Post-op Hip Brace Guidelines:
  - Patient will be fitted for a post-op hip brace prior.
  - This brace should be worn for the first 6 weeks following surgery.
  - If the brace causes significant discomfort, please first contact Dr. Ivie's office to determine if early discontinuation is approved.
  - At 6 weeks patient may begin weaning out of the brace – may begin just before or simultaneously with crutch weaning.

Weight bearing restrictions:

- WB 30% for 2 weeks; patient may progress weight bearing as tolerated following the 2 week post-operative mark.
- Progression to full weight bearing by 6 weeks post –op.
- Patient should walk with 2 crutches or walker for a minimum of 6 weeks at all times
- 6 weeks post op is the minimum time frame to expect to be crutch free.
- The goal is to protect the hip from overuse and to re-establish a normal gait pattern.
- May walk without crutches once patient no longer walks with pain or limp.
- Start slowly. Crutch weaning typically takes 2-4 weeks, but may take longer depending on the patient.

Criteria for progression to the next phase:

- Minimal pain/pinching and swelling
- Proper muscle firing patterns for initial exercises

Diminish pain and inflammation:

- PRICE – Protection, Rest, Ice, Compression, Elevation
- Use these items together to reduce pain and swelling
- Icing is encouraged to be done in prone position if possible – will allow for mild stretching of the hip flexors
- Modalities as indicated – Ultrasound and Electric Stimulation

Strategies to reduce pain during ADLs:

- Hook foot of non-surgical leg under ankle of surgical leg to assist with supine to sit transfers
- Use tall chairs or place something in seat to raise hips while seated (particularly important for tall individuals)

Exercises:

- Ankle Pumps: Do throughout the day
- Transverse Abdominus (TA) Contraction
- Short Arc Quads
- Posterior Pelvic Tilt
- Gluteal Sets
- Quad Sets

Soft Tissue Massage

- Once a day: mobilize and gently flush out edema

Stationary Biking with No Resistance:

- Once a day for 20 minutes
- Upright stationary bikes only
- Set the seat high and avoid leaning forward to eliminate pinch in groin
- This is typically well-tolerated. Stop if painful and reintroduce in 1-2 weeks.

Passive Range of Motion (PROM)

- Performed by therapist and caretaker
    - Flexion – 20 repetitions. Gentle stretch only. Do not force motion.
    - Circumduction in Flexion- 3 x 20 repetitions (both clockwise and counterclockwise). Have partner flex hip, staying in PAIN-FREE range, and move in a circular motion. Start with small circles. Gradually increase range as you are able to tolerate. Do not force motion.
    - Circumduction in Neutral- 3 x 20 repetitions (both clockwise and counterclockwise). Have partner move leg in circular motion with knee straight. Start with small circles. Gradually increase range as you are able to tolerate. Do not force motion.
    - Supine Hip Roll (Internal Rotation) Have partner gently rotate leg inward. For some patients this is more comfortable with the hip slightly abducted.
- Follow ROM precautions
- Stay in PAIN-FREE range only. Do not force motions.
- Patient should remain completely passive.
- Assisting with motion will cause soreness.
- Perform once a day for 8 weeks

Stretching:

- Prone Lying – at least 15 minutes per day, on hands only if comfortable without back pain
- Cat and Cow – 5 second holds, 10 times each way
- Prone laying Quadriceps Stretch with band– 5 x 20 seconds
- Quadriceps Stretch extension rest on table – 5 x 20 seconds

Phase II: Weeks 6-16

Goals:

- Continue to reduce pain and inflammation
- Protect integrity of repaired tissue
- Continue to normalize ROM
    - Still no abduction exercises/strengthening
- Prevent muscular inhibition
- Restore normal gait

Precautions: Same as Phase I

Criteria for progression to the next phase:

- Minimal pain/pinching and swelling
- Proper muscle firing patterns during completion of all exercises
- ROM > 85% of uninvolved side (minimal pain)

Brace Weaning Progression

- May start decreasing time spent wearing the post-op hip brace starting 6-8 weeks post op.
- Usually best to start by stopping use of brace when at home for about 4 hours per day.
- Then may decrease total use, including when outside of home by 1-2 hours as tolerated.

Crutch/Walker Weaning Exercises

Focus on avoiding/eliminating Trendelenburg/compensated Trendelenburg. Increase weight-bearing by 25% every 1-3 days until you reach 100% - starting **NO SOONER** than 6 weeks post op.

Continue using both crutches during this period.

1. Weight Shifting
2. Single Leg Balance – avoid Trendlenberg
3. Forward and backward walking with balance pauses

4. Side-stepping with NO resistance

Exercises: Continue all exercises from Phase I, **no abduction exercises or strengthening.**

Add the following:

- Abduction – 20 repetitions. Gentle stretch only. Do not force motion.
- Bent Knee Fall Outs
- Double Leg Bridging
- Prone Hip Extension- pillow under hips
- Prone Froggies – if uncomfortable, introduce later
- Prone Hamstring Activation: 1 set, 20-30 repetitions, once per day. Facilitate hamstring contraction by lying on your stomach and bending you knee to 90 degrees. Try to avoid hips from flexing and use your transverse abdominis.

Soft Tissue Massage

- Continue as in Phase I
- Once incisions have healed completely, more aggressive scar massage can be performed using Vitamin E oil (or lotion of choice)

Stationary Biking

Begin adding resistance at Week 9. Start slowly. Do not increase time and resistance on the same day.

Passive Range of Motion

Continue as in Phase I

Stretching

- Continue all stretches in Phase I
- Add the following:
- Gentle Hip Flexor Stretch
- Gentle Adductor Stretch
- Piriformis Stretch
- Gentle IT Band Stretch
- FABER Stretch – **DO NOT** force movement. Patient should be supported on pillows to increase comfort.
- Modified Child's Pose (Do not push too far to avoid pinching)
- Modified Cobra

Phase III: Weeks 17+

Goals:

- Continue exercises from Phase II
- Normalize gait and avoid compensation patterns/Trendelenburg
- Begin abduction exercises – add in GRADUALLY
- Do not exercise through pain

If clinically indicated and tolerating passive abduction/phase II exercises, **may add the following without resistance no earlier than 13 weeks:**

- Standing Hip Abduction: 3 sets of 10 repetitions
    - Standing on your nonsurgical leg (and holding onto the wall if needed), bring your surgical leg outward in abduction while keeping your leg straight. Attempt to keep your pelvis level.

Exercises:

- Prone- Isometrics into pillow
- Heel Slides with strap
- Heel Slides without strap
- Abduction:
    - Standing Hip Abduction with Internal Rotation
    - Stool Rotations
    - Bent Knee Fall Outs with band
- Sidelying Gluteus Medius Progression:
    - Assisted Side Leg Raises (eccentric component only)
    - Side Leg Raises with Step Stool or Pillows (partial motion)
    - Side Leg Raises
    - Clams – Level 1
    - Clams – Level 2
    - Clams – Level 3
    - Side Leg Raise with Circles – progress from small to large circles
- Gluteus Maximus Progression:
    - Hip Extension in Quadruped
    - Prone on end of table – Hip Extension with External Rotation
    - Quadruped – Opposite arm and leg extended. Raise and tap

    - Standing Hip Extension with External Rotation – use band when appropriate
- Bridging Progression:
    - Double Leg Bridges
    - Bridges with kick-outs
    - Single leg bridging to fatigue
- Balance Progression:
    - Single Leg Balance on Flat Surface
    - Clock exercise on flat surface
    - Single Leg Balance on Balance Boards
- Prone Planks:
    - Forearms and Knees
    - Forearms and Toes
    - With Alternating Hip Extension
    - Prone plank with alternating lateral stepping
    - Side Planks: (For advanced, do any combination of the following with forearm on Bosu)
    - Side Plank on Knee
    - Side Plank
    - Side Plank with Top Hip Abduction Holds
    - Side Plank with Top Hip Abduction
    - Side Plank with Top Hip Clam
- Side Stepping:
    - Side-stepping without resistance
    - Side-stepping with resistance (pulling weight stack preferred, but can use band)