RODRIGUEZ HIP & KNEE

Direct Anterior Total Hip Replacement Rehabilitation Program

The rehabilitation protocol following *Direct Anterior Total Hip Replacement* is an integral part of the recovery process. This document includes instructions, and a detailed rehabilitation protocol. It is provided to you with the aim of maximizing the success of your post-surgical recovery.

Immediately following discharge from the hospital, please contact your physiotherapist in order to schedule you in and to begin your recovery process. This involves the following three phases: *early, progressive*, and *advanced*. The duration of each phase will vary between individuals.

1) The ***early phase*** involves seeing your surgeon as directed and regular visits with Dr. Rodriguez-Elizalde for treatment and early exercises.

2) The ***progressive recovery*** phase is designed to transition you from your early exercises and treatment to predominantly active care. This is accomplished by co-management of your care by physiotherapists, where your visits will include passive and/or manual therapies along with one-on-one exercise rehabilitation. Visits with your surgeon may still be required, however this will be determined on an individual basis.

3) The ***advanced phase*** begins as you approach full function. You should continue to have regular one-on-one exercise rehabilitation visits which will help you return to unrestricted, full function and optimal levels of physical abilities. You may continue to have visits with your overseeing clinician as required, which will be determined on an individual basis.

This document is meant as a guideline and may vary between individuals based on their progress throughout the rehabilitation process. The following rehabilitation program extends across a 3-month period, however full recovery may take longer based on individual progress.

The main goals of recovery are the following:

- Optimal range of motion
- Optimal level of strength
- Achieve optimal function

The surgeon must be notified if any of the following are present:

- Persistent joint effusion or drainage
- Chronic pain
- Difficulty with ambulation
- Insufficient quadriceps control
- Inability to reach ROM and outcome measure targets
- Regression from achieved milestones

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PHASE 1: Early recovery

- Cryotherapy and elevation to decrease pain and inflammation
- Work in increasing extension and flexion ROM
- Work on normalizing gait, use of assistive devices as instructed
- Demonstration of good neuromuscular control
- Regain quadriceps control and minimize quad lag
- Regular applications of Polysporin and Bio Oil to the incision upon dressing removal for 2 weeks

Week 0-2:

ROM

- Hip and knee ROM exercises

Strengthening

- Abdominal bracing
- Calf pumps with resistance
- Heel slides
- Straight leg raises (anterior approach)
- Seated terminal knee extensions
- Pelvic bridges
- Seated rectus femoris hip flexion (to 90 degrees at the hip with posterior approach)
- Bent over hip extensions (straight leg)
- Standing active ham curls

Proprioception

- Weight transfers (lateral)

Week 3-6:

Cardiovascular fitness

- Stationary upright bicycle (high seat, low resistance)
- Begin arc trainer or elliptical (short stride, low resistance)

ROM

- Knee and hip ROM exercises (restrict to 90 degrees at the hip with posterior approach)

Strengthening

- Modified crunches (one bent, one knee straight)
- Forward planks
- Single leg half pelvic bridge
- Standing hip flexion (to 90 degrees at the hip with posterior approach)
- Standing hip abduction
- Bent over hip extensions
- Isometrics (quads, hams, adductors, abductors)
- Leg press (up to ¼ body weight)

Proprioception

- Weight transfers (lateral)

PHASE 2: Progressive recovery:

- Continue to unilaterally increase strength of involved side until strength equals uninvolved side
- Progress gait training to independent ambulation without assistive device
- Improving and master diverse functional activities
- Return to activities and sport as discussed with your surgeon

Week 7-9:

Cardiovascular fitness

- Stationary bicycle (high seat, low resistance)
- Arc trainer or elliptical (short stride, low resistance)

ROM

- Continue with knee and hip ROM exercises if goals not met

Strengthening

- Modified crunches (one knee bent, one knee straight)
- Forward planks
- Lateral planks
- Straight leg raises
- Wall squats
- Leg press (up to ½ body weight)
- Static lunges (anterior approach)
- Lateral step ups
- Hamstring curls

Proprioception

- Single leg stance (¼ squat position)

Week 10-12:

Cardiovascular fitness

- Stationary bicycle
- Arc trainer or elliptical

Strengthening

- Prone hip extensions (knee straight → knee bent, posterior approach)
- Side lying hip abduction
- Single leg pelvic bridge
- Leg press (up to ½ body weight)
- Static lunges
- Forward step ups
- Lateral step ups
- Knee extensions
- Hamstring curls

Proprioception

- Balance board (lateral, two feet, ¼ squat position

PHASE 3: Advanced recovery

- Strength of involved side approximately equal to uninvolved side
- Normalized gait pattern
- Mastery of sport-specific activities (if return to sport is indicated)

After week 12

Continue as above, increasing the difficulty of the exercises and return to full activities as discussed with your surgeon. Bilateral strengthening if strength of involved side approximately equal to uninvolved side.