



# **Gill Orthopaedic Clinic, P.A.**

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## **DISCHARGE INSTRUCTIONS & PHYSICAL THERAPY PROTOCOL FOR ACHILLES TENDON REPAIR**

Recovery after surgery entails controlling swelling and discomfort, healing, return of range-of-motion of the lower extremity, regaining strength in the muscles in the extremity, and a gradual return to activities. The following instructions are intended as a guide to help you achieve these individual goals and recover as quickly as possible after your surgery.

### **A. COMFORT:**

- 1. Elevation** – Elevate your leg above the level of your heart. The best position is lying down with two pillows lengthwise under your entire leg. This should be done for the first several days after surgery.
- 2. Swelling** – Place crushed ice in a cloth covered plastic bag at the surgery site for no more than 20 minutes, three (3) times a day.
- 3. Medication** –  
**Pain Medication-** Take medications as prescribed, but only as often as necessary. Avoid alcohol and driving if you are taking pain medication.
- 4. Driving** – Driving is NOT permitted until approved by the physician.

### **B. ACTIVITIES:**

- 1. Range-of-Motion** – Move your leg through range of motion as tolerated.
- 2. Exercises** – These help prevent complications such as blood clotting in your legs. Wiggle your toes. Thigh muscle tightening exercises should begin the

day of surgery and should be done for 10 to 15 minutes, 3 times a day, for the first few weeks after surgery.

3. **Weightbearing Status** – You are NOT allowed to put any of your weight on your operative leg. This will change as you begin therapy.
4. **Physical Therapy** – PT should be started 3-5 days after surgery. You should call the physical therapist of your choice for an appointment as soon as possible after surgery. A prescription for physical therapy, along with physical therapy instructions (included in this packet) must be taken to the therapist at your first visit.
5. **Athletic Activities** – Athletic activities **should be avoided** until allowed by your doctor.
6. **Return to Work** – Return to work as soon as possible. Your ability to work depends on a number of factors – your level of discomfort and how much demand your job puts on your leg. If you have any questions, please call your doctor.

**C. WOUND CARE:**

1. Tub bathing, swimming, and soaking of the leg **should be avoided** until allowed by your doctor – Usually 2-3 weeks after your surgery. Keep the cast/splint on, clean and dry for the first 3 days after surgery.
2. You may shower after surgery by putting a plastic bag over the cast and sitting in the bathtub. The cast must remain dry.

**D. EATING:**

1. Your first few meals, after surgery, should include light, easily digestible foods and plenty of liquids, since some people experience slight nausea as a temporary reaction to anesthesia.

**E. CALL YOUR PHYSICIAN IF:**

1. Pain in your leg persists or worsens in the first few days after surgery.
2. Excessive redness or drainage of cloudy or bloody material from the cast/splint
3. You have a temperature elevation greater than 101°
4. You have pain, swelling or redness in your calf or increased swelling of your leg.
5. You have numbness or weakness in your leg or foot.

**F. RETURN TO THE OFFICE:**

1. Your first return to our office should be within the first 1-2 weeks after your surgery. Call Dr. Romanowski's office to make an appointment for this first post-operative visit.

## **REHABILITATION PROGRAM FOLLOWING ACHILLES TENDON REPAIR**

*The intent of this protocol is to provide the therapist with guidelines of the post-operative rehabilitation course after an Achilles tendon repair. It should not be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam findings, individual progress, and/or the presence of post-operative complications. The therapist should consult the referring physician with any questions or concerns.*

The goals of Achilles repair are:

- To return the patient to his/her previous level of activity, and
- Decrease the risk of re-rupture.

In addition to extremity conditioning, total body conditioning should be utilized throughout this protocol.

The following rehabilitation program is offered to provide consistent, efficient and goal-directed rehabilitation. The program is divided into six phases. Each phase has:

- **TIME FRAME** provided for the purpose of guidance and protection. However, it is understood that all patients will vary somewhat in their speed of recover,
- **GOALS**, which provide the rationale behind the treatment approach,
- **TREATMENT RECOMMENDATIONS** are the therapeutic modalities, which can be used to safely achieve the goals for each phase,
- **NOTES** provide parameters for the use of braces, crutches, etc., and
- **PRECAUTIONS** are offered to make the treating PT and patient aware of special problems that may arise during specific phases during the rehabilitation program.

If any questions arise during the course of the rehabilitation program, do not hesitate in contacting the surgeon.

### **PHASE I (0 to 3 weeks)**

Begins immediately post-op through approximately 3 weeks

Goals:

- Control inflammation and pain
- Full hip and knee motion
- Voluntary quad contraction

Cast:

- Short leg cast in neutral plantar flexion

Therapeutic Exercises:

- Hip and knee ROM and strengthening exercises
- Toe curls and spreads

Weight-bearing Status

- NO weight-bearing

**PHASE II (3 to 6 weeks)**

Begins approximately 3 weeks post-op and extends to approximately 6 weeks after the incision and healed and there is minimal swelling

Goals:

- Normal gait

Brace/Weightbearing Statuses:

- Walking boot in 30 degrees plantar flexion, may be adjusted each week into dorsiflexion by 5 degree increments
- Start with toe-touch and increase to partial weight-bearing
- Wear boot for sleeping
- Continue with crutches

Therapeutic Exercises:

- Start gentle active dorsiflexion until Achilles stretch is felt
- Passive plantar flexion
- No active plantar flexion or passive dorsiflexion

**PHASE III (6 weeks to 10 weeks)**

Begins approximately 6 weeks post-op and extends to approximately 10 weeks if there is dorsiflexion to  $-10^{\circ}$

Goals:

- Establish normal gait
- Progress with strength, power, and proprioception
- Wean into regular shoe

Brace and Weighth-Bearing Statuses

- Progress to full weight-bearing
- May switch to shoes with a heel (cowboy boots, heel lift of  $\frac{1}{4}$  inch)

Treatment Recommendations:

- Slowly progress with passive ROM and stretch Achilles tendon
- Advance active dorsiflexion to neutral
- Initiate active plantar flexion at 8 weeks
- Begin stationary bicycle with heel push only
- Gait training
- May progress to pool swimming and jogging at 8 weeks

#### **PHASE IV: (10 to 14 weeks)**

Begins approximately 10 weeks post-op (normal gait) and extends through approximately 14 weeks

##### Goals:

- Advance with strength and proprioception

##### Brace and Weight-Bearing Status

- Wean to a regular shoe as tolerated
- Full weight-bearing

##### Therapeutic Exercises:

- Progress to cycling in shoe
- Full active ROM in all planes
- Gentle full passive ROM in all planes
- Begin and gradually increase active/resistive exercises of the Achilles (i.e. submaximal isometrics, cautious isotonic, Theraband)
- Swimming

#### **PHASE V: (14 weeks to 6 months)**

Begins approximately 14 weeks post-op and extends through approximately 6 months

##### Goals:

- Advance to recreational activities

##### Therapeutic Exercises:

- Closed chain exercises: Controlled squats, lunges, bilateral calf raises (progress to unilateral), toe raises, controlled slow eccentrics vs. body weight
- Cycling, VersaClimber, elliptical trainer, rowing machine, NordicTrack (gradually\_
- Plyometrics
  - Box Steps (6 and 12 inches)
- Proprioception
  - Balance on stable and unstable (BAPS) surface with eyes closed
  - Ball catching and throwing from stable and unstable surface

#### **PHASE VI: (6 months to 9 months)**

Begins approximately 6 months post-op and extends through approximately 9 months

##### Goals:

- Progress to all sports and physically demanding job

##### Therapeutic Exercises:

- Progress to jogging, then running
- Plyometrics
  - Stair running

- Box jumps (6 and 12 inches)
  - Progress with eccentric loading
- Proprioception
  - Mini-tramp bouncing
- Sports-specific drills (cutting, pivoting, start at 25% of speed and progress as tolerated)

Release to Sports

- Full painless ROM
- Full strength
- Able to perform all sports-specific drills