

## Guidelines for Anterior Tibialis Repair

The patient is generally started in therapy at 3 weeks post op. They will have a removable splint on that will keep the foot in dorsiflexion. This splint should be easy to remove so the patient does not have to tighten up on any of the foot or ankle tendons to remove. **Also, when they do remove it, it needs to be passively held in neutral or dorsi flexion. It should not be allowed to drop into plantar flexion.**

**General Info:** This protocol is based on the treatment we do for hand tendon repairs. It is an early controlled active motion program. We allow some limited gliding of the tendon so it does not get stuck in the scar tissue. Some things to be aware of before you treat the patient:

1. If they are moving easily and scaring around the incision is very slight, progress slowly. We want to make sure enough scar tissue has healed around the tendon before we put much tension on it.
2. Some tendon repairs will be near an aponeurosis (ankle/toe). Clarify with the MD to see if this is the case. Sometimes they remove part of the aponeurosis. If the repair is just above or below this and if it is a bulky repair the tendon will have trouble gliding through this region and limit motion.
3. Some tendons in the foot get very frayed. If this is the case, when the tendon is repaired it can often be shortened and therefore motion will be limited. This can stretch out over time but probably not during the course of therapy. Again, you can ask MD about this.
4. Edema will increase the resistance of the tendon moving so always be gentle with motion when there is excessive or prolonged edema.

### Week 3-4 post op

1. Patient is either in a boot or a bivalve cast/ splint. They are not allowed to bear weight on the foot.
2. As mentioned above you want to start moving the joint and get some minimal gliding of the tendon without putting any stress on the tendon repair. Do not allow the foot to move beyond neutral unless specified.
3. Passive dorsi flexion.
4. Place and Hold- Passively move foot into dorsi flexion. Have the patient “gently” hold it in this position. Patient should only use about 30% of max effort.
5. Active plantar flexion to about 10-15 degrees.
6. Scar massage.
7. Edema control.
8. If needed you can also work on toe flexion if the ankle is kept in neutral.

### Week 4 post op

1. Same as above.
2. Can now start gentle active dorsi flexion. Sometimes patients forget what muscle needs to be contracted. You may have to tap over the muscle or scratch the outside of the foot to “tell the brain” this is what we want moved.
3. Active plantar flexion can be increased to 20-25 degrees.

### Week 5 post op

1. Progress with active dorsi- flexion.
2. Active plantar flexion to whatever the patient can do.
3. Can initiate very gentle active assistive or passive motion for plantar flexion.

### Week 6 post op

Doctor will notify you or the patient if they can start with weight bearing. The patient should start with partial weight bearing with a slow progression to full.

1. Can do both A/PROM for both directions
2. Continue with scar massage and edema control
3. Do not start anything resistive to the tendon until they are 8-10 weeks post op.

4. You can start closed chain activities, single leg weight bearing (starting with support), balance activities on firm surface, etc.

**Examples:** Intrinsic foot strengthening-towel crunches, big toe curls; Active dorsi flexion with sustained toe flexion; Non weight bearing core strengthening if indicated

When the patient is full weight bearing then you can also add: Step ups; Squatting; Biking with no toe cage; Bridges with foot flat on table; Clam shells in supine; cone taps; calf stretches if restricted.

#### **Week 8 post op**

1. Goal is to attain full AROM. If not continue to focus on ROM and progress as tolerated.
2. You also want to attain symmetric gait without assistance. If not, progress gait re-education.
3. Begin slow progression of resistive dorsiflexion and isolation of tibialis anterior.
4. Advance CKC loading activities focusing more on single limb and proprioception, including unstable surfaces and lateral loading.

#### **Week 12-16 post op**

Transition back to pre-morbid level of activities including recreation and sport specific loading.

#### **Weeks 16-20 post op**

Progress to running and plyometric activities only when cleared by the MD.