Post-Operative Instructions
Quad/Patellar Tendon Repair

Day of surgery
A. Diet as tolerated
B. Icing is important for the first 5-7 days post-op. While the post-op dressing is in place, icing should be done continuously. Once the dressing is removed on the third post-operative day, ice is applied for 20-minute periods 3-4 times per day. Care must be taken with icing to avoid frostbite. Alternatively, Cryocuff or Game-ready ice cuff can be used as per instructions.
C. Pain medication as needed every four-six hours (refer to pain medication sheet)
D. Make sure you have a physical therapy post-op appointment scheduled to begin ~2 weeks after your surgery, which will be after your first postoperative visit.

Video instructions for your brace can be found at https://www.youtube.com/watch?v=jyRZkSyFBOQ

First Post-Operative Day
A. Continue icing
B. Pain medication as needed.

Second Post-Operative Day Until Return Visit
A. Continue icing
B. Unless otherwise noted, weight-bearing is toe touch only with crutches for the first week after surgery. After 1 week, you can bear as much weight on the affected leg as you can tolerate.
C. Call our office @ 646-501-7223 option 4, option 2 to confirm your first postoperative visit, which is usually about 1-2 weeks after surgery if you have not been given a time. If you are experiencing any problems, please call our office or contact us via the internet at www.newyorkortho.com.

Third Post-Operative Day
A. You may shower this evening. You MUST keep the extremity dry while showering. After showering, remove surgical bandage and apply fresh 4x4 surgical sponges/gauze to the incision and wrap with an ACE bandage. You will need to follow this routine for 2 weeks after surgery.
The knee consists of four bones that form three joints. The femur is the large bone in the thigh and attaches by ligaments and a capsule to the tibia, the large bone below the knee commonly referred to as the shin bone. Next to the tibia is the fibula, which runs parallel to the tibia on the outside of the leg. The patella, commonly called the knee cap, is embedded in the quadriceps and patellar tendon which articulates with the front of the femur, forming the patellofemoral joint (Figure 1). The patella acts as a pulley to increase the amount of force that the quadriceps muscle can generate and helps direct the force in the desired upward direction.

Complete ruptures or partial tears of the patellar tendon or quadriceps tendon can result from landing from a jump, a fall causing excessive knee flexion or other heavy loading of the tendon. Quadriceps tendon ruptures usually occur in people older than 40 years of age. One review article cited 88% of patients with quadriceps tendon rupture were 40 and older. In contrast, most patellar tendon ruptures occur in patients younger than 40. One study reported the average age for patellar tendon rupture to be 28. In both cases it is more likely to occur in males than females. Chronic tendinopathy from repetitive sporting activity; chronic diseases (i.e. renal failure, hyperparathyroidism, diabetes) that compromise blood supply to the tendon; or chronic steroid use may weaken the quadriceps tendon or patellar tendon and make it more susceptible to rupture. The nature and size of the tear, the age of the patient and the activity level of the patient are all important factors in determining the safest and most effective treatment. Good outcomes can be obtained with non-surgical treatment for many small, partial tears. This may involve a short period of immobilization, followed by supervised rehabilitation with a physical therapist or athletic trainer.

Surgical repair is usually necessary to obtain the optimal outcome for large, partial tears and complete ruptures. Most often the torn tendon is re-attached to the knee cap by passing the tendon through drill holes in the knee cap for fixation. In some cases graft tissue may be added to the repair to obtain the desired length of the repaired tendon. In rare cases an “end to end” tendon repair may be done. This technique is used when the tendon is ruptured in the midportion as opposed to near the boney insertion. In either operation, often times a “relaxing suture” is placed to provide extra protection to the repaired tendon by taking some tension off the repair during the initial healing phase (Figure 2).

The outcome from surgical repair is dependent on several variables. People who have their surgery performed early after the injury generally do better than people who have delayed surgery.
Most people should be able to return to their previous occupation and level of daily activity. Return to sports will be dependent on the sport to which the individual is returning, age, severity of the injury and return of strength.

Supervised and structured post-operative rehabilitation is an integral component to obtaining an optimal outcome. Research from our institution has shown that early rehabilitation and mobilization are safe and effective for maximizing outcome.3

Our rehabilitation guidelines are presented in a criterion based progression program. General time frames are given for reference to the average, but individual patients will progress at different rates depending on their age, associated injuries, pre-injury health status, rehabilitation compliance, tissue quality, and injury severity. Specific time frames, restrictions and precautions may also be given to protect healing tissues, and the surgical repair/reconstruction.
## Rehabilitation Protocol: Quad/Patellar Tendon Repair

### POST-OPERATIVE

<table>
<thead>
<tr>
<th>Appointments</th>
<th>○ First PT visit 4 weeks after surgery</th>
</tr>
</thead>
</table>
| Goals                 | ○ Passive or active-assistive ROM for full extension and 0-30° flexion per MD discretion  
                          ○ TTWB crutch gait for 6 weeks with brace locked at 0°  
                          ○ Brace locked at 0° for all activities except therapeutic exercise |
| Precautions           | ○ Water precautions |
| Therapeutic Exercises | ○ AAROM for flexion (see above) and full extension  
                          ○ Isometric quad, ham, adductor and abductor  
                          ○ Ankle theraband exercises |
| Other Suggestions     | ○ Heat/Ice before and after PT sessions |

### Weeks 2-6

<table>
<thead>
<tr>
<th>Appointments</th>
<th>○ PT as necessary to meet goals</th>
</tr>
</thead>
</table>
| Goals                 | ○ Passive or active-assistive ROM, adding 15° flexion each week with a goal of 90° at 6 weeks  
                          ○ Advance beyond 90° after 6 weeks  
                          ○ Remove suture from incision and re-apply steri-strips at 2 weeks  
                          ○ TTWB crutch gait with brace locked at 0° |
| Therapeutic Exercises | ○ As above  
                          ○ Upper extremity exercise is okay |

### Weeks 6-12

<table>
<thead>
<tr>
<th>Appointments</th>
<th>○ PT as necessary to meet goals</th>
</tr>
</thead>
</table>
| Goals                 | ○ D/C brace at 6 weeks  
                          ○ PWB with crutches  
                          ○ Progress to FWB gait as tolerated |
| Therapeutic Exercises | ○ AAROM and gentle stretching  
                          ○ Lower extremity PRE’s with low weight/high repetition  
                          ○ Stationary bicycle  
                          ○ Impact activities per MD discretion |
References


Rehabilitation Protocol: Quad/Patellar Tendon Repair

Name: _______________________________ Date: _____________________

Diagnosis: __________________________ Date of Surgery: _______________

☐ Week 0-2
  • First PT visit 2 weeks post surgery
  • Passive or active-assistive ROM for full extension and 0-30° flexion per MD discretion
  • TTWB crutch gait for 6 weeks with brace locked at 0°
  • Brace locked at 0° for all activities except therapeutic exercise
  • Therapeutic exercise:
    o A.A.ROM for flexion (see above) and full extension
    o Isometric quad, ham, adductor and abductor
    o Ankle theraband exercises
  • Water precautions

☐ Week 2-6
  • PT as necessary to meet goals
  • Passive or active-assistive ROM. Add 15° flexion each week with a goal of 90° at 6 weeks. Advance beyond 90° after 6 weeks.
  • Remove suture from incision and re-apply steri-strips at 2 weeks
  • TTWB crutch gait with brace locked at 0°
  o Therapeutic exercise:
    - As above
    - Upper extremity exercise okay

☐ Week 6-12
  • PT as necessary to meet goals
  • Weeks 6-8: full weight-bearing as tolerated in unlocked hinged knee brace
  • May discontinue brace at week 8
  • Therapeutic exercise:
    o A.A.ROM and gentle stretching
    o Lower extremity PRE’s with low weight / high repetition
    o Stationary bicycle
    o Impact activities per MD

Protocol Modifications:

Comments:

Frequency: _____ times per week  Duration: _____ weeks

Signature: _______________________________ Date: ________________
Post-Op Brace Fitting Instructions

Instructions for the application of the tibia brace following surgical intervention:

**Initial Application by a Medical Professional Only!**

1. Unlock strap clips (A).
2. Spread long PA bar, open, by brace out flat, position device with knee centered between hinges. Orient the brace so the hinges are facing in the direction indicated and the small calf pads are towards the front.
3. Lace friction clips on the telescoping bars. For proper fit, slide upper and lower telescoping bars to recommended leg length. Lack friction clips. Hinge bar length indicators assist in verifying the correct length selection on thigh and calf.
4. Position long PA bar laterally and modally to the leg, center hinge along the long bone.
5. Loosely fasten the 2 straps closed to the knee.
6. Loosely fasten the remaining 2 straps.
7. Pull strap right to remove slack behind the leg. Be careful to maintain the lateral and medial positions of the hinge bars.
8. Lack strap lock clips.
9. Pull strap right through the buckles. Be careful to maintain the lateral and medial positions of the hinge bars.
10. Secure strap ends, use hook and loop to attach ends to affix straps. It may be necessary to shorten straps by folding them over before attaching Y-tabs.

**Range of Motion (ROM) Hinge Adjustments:**

11. Extension limit settings may be selected between -10° (hyperextension) and 20° by pulling the tab out and sliding it to desired position.
12. Flexion limit settings may be selected between -10° and 120° (repsented as last tick mark on scale).
13. The hinge may be locked by sliding the quick lock button into the locked position at any one of 5 positions: -10° (hyperextension), 0° (neutral), 10°, 20°, 30° of flexion.

**BridgeTech Incision Pad Application and Adjustments:**

14. The BridgeTech Incision Pad can be added to the T Scope Premier to alleviate pressure around the incision site. You will need to replace one of the existing pads when using the BridgeTech Incision Pad.
15. To replace one of the existing pads, remove the existing pad from the cuff. Make sure the incision pad will be placed in the proper location once the brace is applied.
16. Apply the BridgeTech Incision Pad to the cuff with the flat side down, making sure the tear-away sections point away from the medial (inside) side of the brace. The tear-away sections will be in the proper location once the brace is applied.
17. To bridge an incision point, remove individual tear-away sections as needed.
18. To provide additional support and pressure relief, affix the tear-away sections of the BridgeTech Incision Pad to the strap that is below the brace on either side of the fiber.

**Use and Care of Your T-Scope Brace:**

After initial applications, the T-Scope may be removed and repositioned by undoing the buckles only.

Hand wash the foam pads and straps with mild soap and air dry. Do not place pads or straps into a dryer.

Extra foam pads are available from: 1-800-321-0607.
**USO Y CUIDADO DE LA RODILLERA T SCOPE:**

1. El cuadrante de la rodilla debe estar centrado correctamente en el rango de movimiento deseado. Si no es así, ajustarlo según sea necesario.
2. Para aplicar el cuadrante de la rodilla, el cuadrante debe estar centrado sobre la articulación del rodilla. Si no es así, ajustarlo según sea necesario.
3. Para retirar el cuadrante de la rodilla, el cuadrante debe estar centrado sobre la articulación del rodilla. Si no es así, ajustarlo según sea necesario.
4. Para aplicar el cuadrante de la rodilla, el cuadrante debe estar centrado sobre la articulación del rodilla. Si no es así, ajustarlo según sea necesario.
5. Para retirar el cuadrante de la rodilla, el cuadrante debe estar centrado sobre la articulación del rodilla. Si no es así, ajustarlo según sea necesario.

**APLICACIÓINE INDICADO DEBE ESTE EJECUTADA ESCLUSIVAMENTE DA UN OPERATORE SANITARIO:**

1. Aplica el embebido de incisiones BridgeTech sobre la mano con el cinturón que se va a utilizar. Se asegura el embebido a la mano con el cinturón que se va a utilizar. Se asegura el embebido a la mano con el cinturón que se va a utilizar. Se asegura el embebido a la mano con el cinturón que se va a utilizar.
2. Fije el embebido a incisiones BridgeTech sobre la mano con el cinturón que se va a utilizar. Se asegura el embebido a la mano con el cinturón que se va a utilizar. Se asegura el embebido a la mano con el cinturón que se va a utilizar. Se asegura el embebido a la mano con el cinturón que se va a utilizar.
3. Para aplicar el embebido de incisiones BridgeTech sobre la mano con el cinturón que se va a utilizar. Se asegura el embebido a la mano con el cinturón que se va a utilizar. Se asegura el embebido a la mano con el cinturón que se va a utilizar. Se asegura el embebido a la mano con el cinturón que se va a utilizar.
4. Para retirar el embebido de incisiones BridgeTech sobre la mano con el cinturón que se va a utilizar. Se asegura el embebido a la mano con el cinturón que se va a utilizar. Se asegura el embebido a la mano con el cinturón que se va a utilizar. Se asegura el embebido a la mano con el cinturón que se va a utilizar.

**GEBRAUCH UND PFLEGE DER T-SCOPE-ORthesE:**