Special Uncommon Case: Meniscus Root Tear

A root tear is where the meniscus is torn at the attachment to the bone. When this happens, it is just like a suspension bridge with its cables cut. The meniscus no longer bears any weight. Like a tree with root rot, very little pressure is needed to push the tree out of the ground and similarly the meniscus out of the joint. The meniscus pushed out of place with no root attachment increases the stress on the bone and cartilage it's meant to protect.

A root repair is required to save the meniscus and restore its load sharing function. As it turns out, this also requires a special type of arthroscopic repair of the root back to the bone. This means non-weight bearing for at least six weeks and a protective bending sports type brace for 4 months after surgery. The good news is when this works well, it is helpful in protecting the knee from the long-term effects of a root tear, namely rapidly advancing osteo-arthritis and a knee replacement.

When Dr. Reznik does this type of repair, he will order the special post repair unloader brace to help protect the repair while allowing for good motion. This also helps improve day-to-day function as the meniscus is protected while it heals. The goal is a good repair, good healing, and potential protection from early arthritis.

The post-op PT protocol is below:

Meniscal Root Repair Rehab Protocol
Dr. Alan Reznik

The following guidelines are for the rehabilitation of patient's status post Meniscal Root Repair. Normal variations will occur. Report Significant deviations to the surgeons. Meniscal Root Repair precautions will be maintained throughout the rehabilitation. These include the following:

- **No forceful flexion beyond 90 degrees**
- **No weight bearing for 6 weeks**
- **No closed chain exercises for 6 weeks**

•No squatting, running or jumping until cleared by physician (~4 months)

•Knee Immobilizer for 4 weeks, then after 4 weeks, use medial unloader brace

Post Op Phase I: day one to two weeks
General Comments

•Knee Immobilizer to maintain full extension to be worn at all times
•Non-weight bearing
•ROM 0-90 degrees, no forceful flexion beyond 90 degrees
•Therapy 3x/week unless otherwise indicated

1. **Electrical Stimulation to the Quads**
2. **Four planes SLR with no weight**
3. **Active prone knee flexion**
4. **Resisted plantar flexion with TheraBand**
5. **Ice and elevation**

Post Op Phase II: two weeks to four weeks

1. **Add weights to SLR at 2 weeks**
2. **Standing Hamstring Curls at 2-4 weeks**
3. **Begin NK quads and hamstring exercises**
4. **Begin stationary bike for gentle ROM at 4 weeks**
5. **Ice PRN**

Post Op Phase III: four weeks to six weeks

1. **May begin to wean out of knee immobilizer at 4 weeks and switch to medial**
   unloader brace. Continue Medial unloader brace and start weight bearing in 6 weeks
2. **Root repair to start unloader brace during daytime. Continue Knee Immobilizer at night.**

3. Progress with PRES
4. Add resistance to bike if pain free ROM
5. Gait Training as needed without immobilizer (partial weight bearing with unloaded brace and two crutches only)
6. Begin balance exercise at 6 weeks

Post Op Phase IV: six weeks and beyond

1. Wean from crutches/continue unloader brace until 4 months post op
2. Continue on established program
3. Progress to protected closed chain exercises restricting loaded weight bearing to less than 60 degrees of flexion
4. Discharge to home exercise program when:
Pt presents with stable knee
Pt demonstrates pain free ROM of 0-120 degrees
Pt demonstrates good quad set