Meniscal Allograft Transplantation Rehabilitation Protocol

Description of Procedure: A size-matched cadaver donor meniscus is transplanted into the site of the original meniscus. The meniscus is anchored anatomically by bony fixation centrally and non-absorbable vertical mattress sutures peripherally (exits through accessory posterior incision).

Safety Warning: Meniscal motion is greatest past 60 degrees. During patient cellular invasion of transplant excessive loading may be detrimental. Avoid any tibial rotation for eight weeks to protect meniscus.

Phase I (Weeks 0 to 6)

Weight Bearing
- Foot flat for balance for the first 10 days
- Progress to weight bearing as tolerated after suture removal

Brace
- Worn for four weeks post-operatively (remove for continuous passive motion (CPM) and exercise)

Range of Motion
- 0 to 2 Weeks: 0 to 60 degrees with CPM
- 2 to 4 Weeks: 0 to 90 degrees with CPM
- 4 to 6 Weeks: Full motion

Therapeutic Exercise
- 0 to 2 Weeks
  - Prone hangs, heel props, quad sets, straight leg raises (SLR), hamstring isometrics; complete exercises in brace if quad control is inadequate
  - Core proximal program
  - Normalize gait
  - Functional electrical stimulation (FES) biofeedback as needed
- 4 to 6 Weeks
  - Addition of heel raises, total gym adduction/abduction exercises and incorporate use of stationary bide (high seat, low resistance)
  - No weight bearing with flexion more than 60 degrees during Phase I

Phase II (Week 6 to Month 3)

Weight Bearing
- Progression to full weight bearing normalized gait pattern; no limping

Brace
- Discontinue use per Dr. Farr's instruction

Range of Motion
- Full active range of motion

Therapeutic Exercise
• Begin closed chain activities: Mini-squats 0 to 45 degrees progressing to step-ups, leg press 0 to 60 degrees, closed chain terminal knee extensions, toe raises, balance activities, hamstring curls, increase to moderate resistance on bike

Phase III (Months 3 to 9)

Weight Bearing
• Normal gait

Brace
• None

Range of Motion
• Full and pain-free

Therapeutic Exercise
• Advance bilateral and unilateral closed chain exercises with emphasis on concentric/eccentric control
• Continue with biking, elliptical and walking on treadmill
• Progress balance activities

No closed chained exercises until six weeks post-op.

CPM used if concomitant cartilage restoration performed at the time of the osteotomy.

Progression back to sport is dependent on case per case basis and determined by Dr. Farr. If pain or swelling occurs patient is expected to stop causative activity and follow-up with our office.

Leg extension exercises with resistance are not allowed indefinitely.