

Orthopaedic Sports Specialists, P.C.

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Meniscus Transplantation - Rehabilitation Protocol

Our protocol for rehabilitation following meniscal repair is divided into four phases: maximum protection, moderate protection, advanced phase and return to activity phase. These time periods are based primarily on the healing time of peripheral tissues, and location of the tear. **Remember – allografts have less pain.**

The Key Factors in Meniscal Repairs Include:

1. Anatomical site of tear.
 2. Suture fixation-can lead to failure if too vigorous
 3. Location of tear-anterior or posterior
 4. Other pathology; i.e. PCL, ACL
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Phase I Maximum Protection Phase: Weeks 1-8:

Stage I: Immediate post-surgery day 1 thru week 4

Ice, compression, elevation

Electrical Muscle Stimulation

Brace locked at 0 degrees for ambulation

Range of motion 0-60 degrees

Motion is limited for the first 2 months, depending on the development of scar tissue around repair site. Gradual increase in flexion ROM based on assessment of pain (0-30 degrees then 0-50, 0-70, 0-90)

Patellar Mobilization

Scar tissue Mobilization (at incision)

Passive range of motion 0-60 – **DO NOT ALLOW ROLE-BACK**

Exercises

- ∞ quadriceps isometrics
- ∞ hamstring isometrics (post. horn light hamstring exercises for first 3 weeks with gradual increase to 6 weeks)
- ∞ hip abd/adduction

Partial weight bearing with crutches with brace locked at 0 degrees.

Proprioception Training

Stage II: Week 4-8

Advance to weight bearing as tolerated - full (without assisted device), brace locked at 0 degrees.

Aquatic Therapy may begin WBAT in pool

Exercises:

PRE program initiated
Limited range knee extension
(in range less likely to impinge or pull on repair)
Toe Raises
Mini-squats (0-60 degrees)
Cycling
Surgical Tubing Exercises-diagonal patterns
Flexibility Exercises

Phase II - Moderate Protection Phases: Weeks 8-12:**Goals:**

- ∞ Increase strength,power,endurance
- ∞ Normalize Range of motion of knee
- ∞ Prepare patient for advanced exercises
- ∞ Highly advanced Aquatic Therapy

Criteria to Progress to Phase II:

1. Range of motion 0-90 degrees
2. No change in pain or effusion
3. Quad control

Exercises:

Strength - PRE program continues
Flexibility Exercises are emphasized
Lateral Step-ups - 30 sec x 5 sets - 60 sec x 5 sets
Mini-squats
Isokinetic Exercises

Endurance Program:

Swimming
Cycling
Stair Machines
Pool Running

Brace:

Discontinue post-op brace with good quad control, 90% of full ROM, No pain. Our office will coordinate advancement to:

Fit for Custom ACL brace – prevent varus/valgus and hyperextension**Coordination Program:**

Balance Board
High Speed Bands
Pool Sprinting
Backward Walking

Plyometric Program

PHASE III - Advanced Phase: Weeks 13-24:**Goals:**

- ∞ Increase Power, endurance
- ∞ Emphasize Return to Skill Activities
- ∞ Prepare to return to full unrestricted activities

Criteria to Progress to Phase III:

1. Full non-painful ROM
2. No pain or tenderness
3. Satisfactory isokinetic Test
4. Satisfactory clinical exam

Exercises:

Continue all exercises in Phase II
Increase Tubing Program, Plyometrics, Pool Program
Initiate Walk - Running Program

Sports Specific Drill Program:

Individualized to meet patients athletic goals
Sports simulation activities
Address demands for deep flexion, rapid extension, lateral & pivoting activity, and risk for contact.

Return to Activity:

Doctors release.

Criteria for Return to Activity:

1. Full non-painful ROM
2. Satisfactory Clinical Exam
3. Satisfactory isokinetic Test

PHASE IV - Advanced Phase: Weeks 25-52:**Goals:**

- ∞ Increase Power, endurance
- ∞ Return to Skill Activities and sports

Criteria to Progress to Phase IV:

1. Full non-painful ROM
2. No pain or tenderness
3. Satisfactory isokinetic Test
4. Satisfactory clinical exam
5. Approval from Dr. Joyce

Exercises:

Continue all exercises – more sports specific (pre-practice)
Increase Plyometrics, Pool Program
Initiate Running Program (including grass, cut and turn)

Sports Specific Drill Program:

Individualized to meet patients athletic goals
Sports simulation activities
Address demands for deep flexion, rapid extension, lateral & pivoting activity, and risk for contact.

Return to Activity:

Doctors release.

Criteria for Return to Activity:

1. Full non-painful ROM
2. Satisfactory Clinical Exam
3. Satisfactory isokinetic Test