

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

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