

# 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

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## **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**

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**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