

# Megan R. Wolf, MD Sports Medicine

# **MENISCUS TRANSPLANT**

Post-Operative Protocol

### Phase I - Maximum Protection

#### Weeks 0 to 6:

- Brace 0-90 degrees
  - o Recommend locking brace in extension for sleep
- Non-weight bearing with two crutches for 6 weeks
- Limit knee flexion to 90-degrees for 3 weeks; allow 90-120 degrees between 3 to 6 weeks

# <u>Goals</u>

- o Reduce inflammation and pain
- o 0 degrees of knee extension

## Exercise progression

- Emphasize patellofemoral mobilizations
- o Passive/active knee range of motion with 90° flexion limit
- o Quadriceps setting emphasize VMO function
- Multi-plane straight leg raising
- o Open chain hip strengthening
- Gait training

## Phase II - Progressive Stretching and Early Strengthening

#### Weeks 6 to 8:

- Brace open to 0-90 degrees for ambulation
- Continue using two crutches, with gradual progression of weight bearing
  - o Increase WB to FWB over next 2 weeks

#### Exercise progression

- o Gradual progression to full knee flexion
- Continue to emphasize patella mobility
- o Begin bilateral closed kinetic chain strengthening limited range initially
- Step-up progression
- Begin stationary bike with light resistance initially
- o Gait training normalize gait pattern

# Phase III - Advanced Strengthening and Proprioception

#### Weeks 8 to 12:

## Goals

o Full knee range of motion

# Exercise progression

- Avoid rotational movements for 16 weeks
- Advance stationary biking program (increase intensity)
- Introduce treadmill walking and elliptical trainer
- Begin unilateral closed kinetic chain program
- o Gym strengthening progression (leg press above 90-degrees, hamstrings curls etc.)

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# Phase IV – Advanced Strengthening and Plyometric Drills

## Weeks 12 to 26:

Follow-up examination with the physician

# Goals

o Pass return-to-sport functional test at > 90% (involved vs uninvolved limb) by 26 weeks

# Exercise progression

- o Plyometric drills from bilateral to unilateral at 16 weeks
- o Linear running progression at 16 weeks
- o Progress to lateral and rotational stresses at 18 weeks
- o Multi-directional drills at 18-20 weeks

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