

Meniscus Repair — Peripheral Tears (small–medium longitudinal)

Patient _____

Date _____

Involved side ☐ L ☐ R

Standard Meniscus Repair Guidelines

Peripheral Tears: small – medium longitudinal tears

Phase I (0–4 weeks post-op) — Early Protection

General care

- Avoid deep weight bearing flexion — less force transmitted through meniscus in extension versus flexion
- Avoid pivoting and twisting
- Limit excessive weight-bearing forces — high compressive and shear forces can disrupt healing meniscus
- Peripheral repairs heal more rapidly; complex repairs into the central “white” region heal more slowly; radial repairs must especially be protected as excessive weight bearing can disrupt the repair.
- There are many variations to the protocol based on the type of repair and location of the repair — maintain good communication with the surgeon for any adaptations to this protocol.
- Edema control — ice, elevate and compress 6–8 times per day.
- Keep surgical sites dry and clean

Weight bearing

- Gradual progression of WB with goal of full WB at 2–3 weeks

Immobilization

- Unlock brace to 30 degrees on first visit with gradual progression to 90 degrees by 3 weeks.
- d/c brace at 3–4 weeks

Range of motion (ROM)

- *Don't push to get motion early; don't discourage/restrict available motion*
- The meniscus slides behind the femoral condyles with hyperflexion
- Suggested ROM time-frames: 0–90 for 2 weeks; 0–120 at 4 weeks post-op; 0–135 at 6 weeks post-op
- Avoid hyperextension in anterior horn meniscus repairs
- Patellar mobilizations
- Hamstring and gastrocsoleus stretching initiated immediately to avoid flexion contracture

DR. HUBBARD'S PATIENTS

Flex no greater than 90 deg 5–6 wks.

Therapeutic exercises

0–2 weeks (continued on next page)

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0–2 weeks

- Quad sets, heel slides for ROM, 4-way hip SLR, AA knee extension from 90–0 degrees
- Conditioning may be performed on UBE
- Progress to s/l hip abduction, adduction and prone hip ext when SLR achieved without extensor lag.

2–3 weeks

- Start weight bearing exercise
- Gait training to facilitate quad control
- Active knee extension (quadriceps) between 90–0 degrees and active knee flexion (hamstrings) between 0–90 degrees to avoid stress on meniscus
- McLaughlin recommends 90–30 for extension and 10–90 for flexion due to increased stress on meniscus with last 30 degrees of knee extension (anterior meniscal glide) (Heckmann)
- Limit active knee flexion (5–6 wks) to avoid hamstring strain with medial meniscus repairs
- Initiate leg press from 0–60 degrees

3–4 weeks

- Gait training to normalize gait
- Initiate wall sits and mini-squats from 0–60 degrees of flexion (to protect posterior horn of meniscus)
- Stationary bike when able
- Open chain resisted knee extension from 90–0 degrees (may need to block last 30 degrees — McLaughlin); resisted knee flexion from 0–90 degrees avoiding hyperextension
- Delay resisted hamstring work until 5–6 weeks if medial meniscus repair
- Balance/Proprioception can be initiated with crutch support with partial weight bearing and without crutch support when full weight bearing is tolerated.

Phase II (4–12 weeks) — Progress strength and function

ROM

- Progress to full

Therapeutic exercise · 4–6 weeks

- Gradually progress as tolerated
- Initiate step ups and step downs as tolerated
- Initiate resisted knee flexion for medial meniscus repairs
- Conditioning programs such as dry land walking, straight leg kicking in pool, stair climbing, elliptical cross trainer and/or cross country ski machine — 3x/week for 20–30 minutes
- Progress balance/proprioception exercises as tolerated

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6–12 weeks

- Progress leg press and squatting to 90 degrees
- Progress functional activities as tolerated

Phase III (12–20 weeks) — Advanced strengthening

16 weeks

- Initiate isokinetic workouts on Biodex. Start with faster speeds (240–360 degrees/second). ? block 30 degrees

16–20 weeks

- Initiate light plyometrics — double leg hopping, bounding, double leg box jumps (4"–12" progression)
- Light jogging for small tears

20 weeks

- Biodex test
- Initiate running program for peripheral tears who have $\leq 30\%$ quad and hamstring deficit in average peak torque with isokinetic testing on Biodex

Phase IV (20+ weeks) — Return to sports

Therapeutic exercise and sport specific training

- Progress plyometrics and sport specific training.
- When pt can run straight ahead at full speed then lateral and cross over maneuvers are added (i.e. figure of 8, carioca, cutting at 45 and 90 degree angles and agility ladder)
- Functional testing: 6 meter timed hop test; Single leg broad jump
- 6 months for return to sport: $< 10\%$ quad deficit on Biodex and $< 10\%$ deficit with functional testing for return to sport