POST-OPERATIVE PROTOCOL · PHASE 1 · PAGE 1 OF 3

MENISCUS REPAIR

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These guidelines are a **framework** for the post-operative rehabilitation program. They **do not** substitute for any specific restrictions or requirements determined through the necessary shared decision-making and collaboration between the operating surgeon and the treating rehabilitation team. **Weight-bearing progression depends on the type of repair** — see below.

PHASE 1	PHASE 2	PHASE 3	BRACE	CLEARANCE
WEEKS 0–6	**WEEKS 7–12**	**MONTHS 3–6**	**6–12 WEEKS**	**6–9 MONTHS**
Protect the repair	Gait & full ROM	Return to run	Locked at 0° for gait	Collision sport / full duty

1 PROTECT THE REPAIR · GENERALLY 0–6 WEEKS POST-OP

GOALS Protect the surgical repair · ROM 0–90° or as dictated by the type of repair · regain adequate quadriceps control with no extensor lag · minimize pain and swelling

PRECAUTIONS	◆ Wear brace **AT ALL TIMES**, even when sleeping ◆ **NO FLEXING** the knee with load applied (squat or leg press) ◆ **Note:** bending the knee and partial weight-bearing are both allowed, but **not at the same time**
BRACE	◆ Wear the brace locked in extension during ambulation, respecting the weight-bearing restrictions below
WEIGHT BEARING	◆ Begin as foot-flat, non-weight-bearing ◆ Progress gradually only when wearing the brace locked at 0°

RADIAL, COMPLEX & ROOT REPAIRS — WEIGHT BEARING

- **Weeks 1–6:** NWB to foot-flat weight-bearing only
- **Note:** may need to be modified based on the surgical report

BUCKET-HANDLE, VERTICAL & LONGITUDINAL — WEIGHT BEARING

- **Weeks 1–2:** PWB at 0–25% body weight (progress as tolerated with the knee locked in extension)
- **Weeks 3–4:** PWB at 25–50% body weight
- **Weeks 5–6:** PWB at 50–75% body weight

WOUND	◆ Post-op dressing remains intact until post-op day 3 (~72 hours after surgery) ◆ Shower after post-op day 3 (no need to cover the incision site) ◆ **DO NOT SUBMERGE** the knee in water until incisions are fully healed ◆ Suture removal at 10–14 days post-op per orthopaedics
CRYOTHERAPY	◆ Cold with compression / elevation (ice with compression wrap)
REHABILITATION	◆ Begin scar massage after the incision has healed and the scar is formed ◆ Begin patellar mobilizations after suture / staple removal

WEEKS 1–2 — QUAD CONTROL

- Calf pumps with theraband
- Assisted heel slides within the limits of 0–90°
- Quad sets — use e-stim until the patient can do 10 SLRs without extension lag
- Supine passive extension with a towel under the heel
- Gentle HS and calf stretching
- Hip / glute muscle endurance exercises

WEEKS 3–4 — PROGRESS

- Continue progressing the exercises from weeks 1–2 as appropriate
- Short arc quads; add light weights as tolerated
- Seated ankle ROM and proprioceptive training
- Gait training progression as needed
- UBE

WEEKS 5–6 — ADD LOAD

- Leg press 0–60° (**note:** when ROM >85°)
- Hip extension endurance exercises
- Stationary bike 0–100° knee ROM
- Beginner-level pool exercises when incisions are fully healed; primarily in the sagittal plane (no breaststroke or whip kick motion) — gait training and deep-water jogging only

FOLLOW-UP

- Supervised rehab: 2–3× per week
- PT re-eval: every 1–2 weeks
- Ortho re-eval: ~7–10 days and 6 weeks

2 GAIT & FULL MOTION · GENERALLY 7–12 WEEKS POST-OP

GOALS Normal gait and stair ambulation · full knee ROM

PRECAUTIONS	NO RUNNING
WEIGHT BEARING	Progress gradually to full weight-bearing by 12 weeks
BRACE	Discontinue the brace if there is adequate quadriceps strength and ROM
REHABILITATION	Continue Phase 1 exercises as needed Progress to the following exercises and increase intensity gradually when the patient is ready (no increase in knee pain or effusion since the previous session) **Note:** all resisted exercises should start with low weights, high reps, and in a ROM with minimal pain

WEEKS 7–8 — GAIT TRAINING

- Stationary bike for conditioning — begin with 5–10 minutes and progress gradually
- Gait training: cone walking, marching, retro-walking, exercise band
- General LE stretching: calf, HS, quads, hip flexors, hip adductors
- Begin light elliptical / stairmaster when gait is normalized
- Progressive LE strengthening (calf press, leg press, squats 0–60°, HS curls). **Emphasis on knee extension strength.**

WEEKS 9–10 — NEUROMUSCULAR

- Progressive neuromuscular training
  - Body blade, plyoball, rebounder, platform training
  - Progress in duration and intensity
  - DL to SL
- Progressive strengthening with light resistance
  - Calf press, leg press, squats (progress in depth), hip abduction / adduction, HS curls

WEEKS 11–12 — CONDITIONING

- Gradual progression of stationary bike, elliptical and/or stairmaster for conditioning
- Progressive pool program as tolerated

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VANDERBILT HEALTH

FOLLOW-UP

- Supervised rehab: 2–3× per week
- PT re-eval: monthly
- Ortho re-eval: ~12 weeks post-op

3 RETURN TO RUN · GENERALLY 3–6 MONTHS POST-OP

GOALS Jog at own pace and distance without pain · ≥90% isokinetic quadriceps and HS strength compared with the uninvolved limb · ≥90% SL hop for distance and crossover hop test · meet occupational requirements at 4–6 months

PRECAUTIONS

- **NO PARTICIPATION** in contact sports or physically demanding military schools until cleared by orthopaedics

BRACE

- None

REHABILITATION

- Continue Phase 2 exercises as needed
- Progress to the following exercises and increase intensity gradually when the patient is ready (no increase in knee pain or effusion since the previous session)

WEEKS 13–16 — STRENGTH & AGILITY

- Non-impact aerobic conditioning
- General LE stretching
- Progressive strengthening: lunges, leg press, calf press, squats <90°, HS curls, hip extension / abduction / adduction
- Isokinetic training if available
- Progressive balance training as needed
- Progressive agility and plyometric training

WEEKS 17–26 — RETURN TO RUN

- Progressive jogging program beginning **no earlier than 16 weeks**
  - Increase time and/or distance no more than 10–20% per week

FOLLOW-UP

- Supervised rehab: 1–2× per week
- PT re-eval: monthly
- Ortho re-eval: ~6 months post-op

DISCHARGE GOALS

- Hop test and Y-balance limb symmetry >90%
- Isokinetic testing limb symmetry >85%
- Mitigate future injury risk

BEYOND 6 MONTHS — MISCELLANEOUS

- After 6 months post-op, Phase 3 exercises are continued and gradually increased in intensity and duration as tolerated
- Pass service fitness test at 6–8 months
- Progress activities for return to sport, collision sports or aggressive military training (e.g. airborne school) based on the patient's functional performance and endurance — directed by the orthopaedic surgeon and physical therapist; **may require 6–9 months before clearance without restrictions**

REFERENCES

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Adapted from the Meniscus Repair Rehabilitation guideline in the *Tri-Service Post-Operative Rehabilitation Guidelines*, Defense Health Agency, May 2020.

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