

PRP – Knee

Healing Process:

Initial Stage day 1-10: Gap is filled with wbc's and PRP is activating to prepare for cross bridging.

Proliferation Stage Week 1-Week 3: Allow the initiation of cross-bridging and filling the gap with the prp

Regeneration Stage: Week 2-5: Active repair, collagen synthesis, initiating tensile strength

Remodeling Stage: Week 4 - 6 months: Collagen aligns in the longitudinal axis, increasing tensile strength

Patient Response:

Day 1 and 2: painful in the joint

Day 3-6: Diminishing pain and improving significantly

Day 7: Sometimes no pain at all, improved quality of ROM

***Therefore, pain is not an indicator of the healing process!!!**

Goals:

- Allow the PRP to absorb at the location (7-10 days)
- Muscle belly 3-4 weeks (interval return to sport program begins)
- Tendons and 6-8 weeks (interval return to sport program begins)
- Ligaments 8-10 weeks: MCL/ LCL avoid valgus/ varus stress x 6 weeks!! (interval return to sport program begins),

RANGE OF MOTION AND WEIGHT BEARING

- **Week 1:** Begin PROM only for PT only in the first week.
PWB/NWB Knee immobilizer
- **Week 2:** Begin low level closed chain activity.
Walking only. Remove immobilizer. No squats or lunges
- **Week 3 and 4:** AAROM should get 90% of ROM without stretching by end of week 2
Initiate trot or light jogging activities (not long duration) <15 minutes
- **Week 4:** Begin gentle stretching . **Begin squats and lunges**
Initiate jog, stride and light run straight planes...no deceleration
- **Week 5-6:** Begin Stretching of muscles
Initiate jump progression, cutting activities, sprints, change of direction

STRENGTH: All pathologies must go through week 1 and 2. Weeks 3 and so on.... can be modified depending on the above pathologies and sport related in season vs post season. This schedule is optimal for tissue healing.

- **Week 1-2:** no strengthening, no activity, no modalities, Gentle PROM only Towel slides to 90
- **Week 2:** begin PROM and AAROM exercises within pain free range (no stretching).
Level 1 exercises: SLR's, bridging, planks, heel raises, form run @ walk pace. Selective dynamic warm-up. Begin straight leg closed chain exercises on stable surface only
- **Week 3:** Initiate Leg press or assisted squat and lunge, Dynamic warm-up, Form run @ trot to jog pace ladder @ jog pace. Resisted walk outs -all directions. Begin Bike for cardio
- **Week 4 and 5:** Begin Squat and lunges, Controlled and low intensity (in place) return to sport drills. Progressive 40-60 yards (jog, and stride) . Begin elliptical for cardio

Center for Athletic Medicine

Dr. Preston Wolin

By, Kyle Yamashiro, PT, CSCS

- **Week 6-7:** Begin Jump Progression, Increase speed of agility, change direction, Jogging for cardio
- **Week 8-10:** Begin sprinting and Return to sport activities 50-75%. Effort
- **Week 11-12:** Return to competition

~Please call 773.248.4150 with any and all questions~