Healing Process:

**Post -Injection 1-10:** Gap is filled with wbc’s and PRP is activating to prepare for cross bridging.

**Protection Phase Week 1-Week 3:** Allow the initiation of cross-bridging and filling the gap with the prp

**Light Activity Phase: Week 2-5:** Collagen synthesis and aligns in the longitudinal axis, initiating tensile strength

**Return to Activity: Week 4 - 3 months:** Collagen increasing tensile strength and elasticity

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)
- Plantar Fascia and Achilles Tendon 6-8 weeks (interval return to sport program begins)
- Ligaments 4-10 weeks: Depends on severity of sprain!! (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* walking boot, crutches
- **Week 2:** Begin low level closed chain activity. *Walking only.* Remove immobilizer.
- **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. *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 1and 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
- **Week 2:** begin PROM and AAROM exercises within pain free range (no stretching). *Level 1 exercises:* ABC’s, DF/PF, form run @ walk pace. Selective dynamic warm-Up. Begin straight leg closed chain exercises on stable surface only. Initiate Leg press ankle @0°
- **Week 3:** Begin resisted band strength, 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:** Controlled and low intensity (in place) return to sport drills. Progressive 40-60 yards (jog, and stride). Begin elliptical for cardio
- **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