Knee Rehab after Regenexx ACL complete rupture repair procedures.

	Restrictions	Therapeutic Exercise	Progress to next phase when:
Phase I: Max Protection, ROM, light strength training, gentle balance training Week 0-6	ACL brace for 6 weeks pending MD recs. No plyometrics, cutting movements, or lateral movements. No running.	Gentle Isometric quad sets, hip abductor and core strengthening.	At least 4 weeks Able to perform all exercises with less than minimal 2/10 pain
Phase II: Advanced Resistance training, Balance Week 6-12	Can discontinue brace per MD recs. No plyometrics or cutting movements. Back off any activity that causes more than minimal pain 2/10 during or after exercise or felling of instability.	Begin resistance training: light squats, leg press, core, hip abductor and hamstring strengthening. Balance board exercises Can begin straight jogging at 6 wks if not painful Progress to: Combine strength and balance exercises (ball toss on balance board or trampoline) Single leg exercises: calf raises, squat, dead lift. Shuttle jumping	Able to perform all exercises with no more than 2/10 pain and no feeling of instability x 1 week Single-leg stance 60 sec (eyes closed) Single-leg squat 20 reps (60° flexion) MRI showing ligament healing
Phase III: Guided sport specific training. Week 12-20	Back off any activity that causes more than minimal pain 2/10 or instability during or after exercise. Use brace to start off.	 2 leg to single-leg jumps Progressive plyometrics Speed, agility, and cutting drills Controlled sport specific movements 	Return to sport once MD clearance and progressed to sports specific movements without pain for at least 1 week.
Phase IV: 4.5-12 months Return to Sport/ACL prevention program	No strict restrictions.	The Santa Monica Sports Medicine: PEP (Prevent Injury and Enhance Performance) program: http://smsmf.org/smsf-programs/pep-program Neuromuscular rehab to demonstrate correct form (good knee, hip, pelvic, and trunk stability) with Step Down, Drop Jump, Lateral Shuffle, Deceleration, Triple jump, and Side step-cut.	Only return to full sport with Dr. clearance after reviewing MRI, checking objective stability, and demonstrating correct neuromuscular control.

Note: Need repeat MRI at 3 months. Pending results may platelet boaster injection or repeat stem cell procedure. If second procedure should repeat MRI at 6 months. You need objective ACL stability measurements before and after procedure with rolometer/telos or KT 1000.