

9/21/2008

## Reflection #4

Phase 1 - Reducing Pain and Swelling ~(weeks 0-4)

Post surgery: Keep wound covered with bandages/cast for first couple of weeks. Surgical wounds may be problematic when trying to gain ROM, so it is important to monitor those during phase 2. Limit physical activity to non-exercise. GameReady(20 min with acewrap)

Phase 2 - Increase ROM - (weeks 1-4)

Start with wall slides, ankle pumps (wall), quad sets (wall), and towel toe crunches (wall). 4 sets of 25 for each. Then add in some bike peddling with little to no resistance. Then add in some hamstring curls, standing knee extensions(all 4x25), and bridging the ball(3x12). Treadmill with inclined will most likely be an option as well with slight elevation for 10-15 min.

Phase 3 - Increase Strength - (weeks 4-6)

Continue with some of the previous ROM exercises with heavier weights and progressively go to weight bearing exercises and cardiovascular exercises. Add in walking with shoe only and squatting for strength and balance

Phase 4 - Sport Specific - (weeks 6-12)

Continue with strengthening, balance, and proprioception exercises integrating sport specific exercises. Since the athlete is on the spirit squad it would be a good idea to ease into plyometric exercises dealing with impact(tumbling), front squat for stunting and lifting.

## Rehab Participation #4

S - Athlete has been out of a cast for about 7 weeks after undergoing surgery on the left ankle(OCD lateral reconstruction) Still has some slight pain and stiffness with plantar flexion and inversion. Has recently added inversion ROM to his rehab and is now walking with an aircast. After visiting his physician, the physician has instructed him to increase his rehab to weight bearing and removal of soft cast. The Physician gave him a compression sock to help with swelling. The physician also says to limit further increase of ROM.

O - ROM continues to increase, but the physician wants him to increase strength instead of ROM. There is increased swelling over the PTF ligament. Surgical wounds are almost completely healed and scarring seems to be at a minimal.

A - Left Ankle OCD which led to lateral reconstructive surgery. 5 weeks post op.

P - To continue with rehab protocol. Move to weight bearing exercises which include balancing, directional lunges, step ups, calf raises, and continue with theraband(green). Then friction massage to reduce scarring and GameReady to reduce swelling/inflammation.

## Reflection # 10

Deep Quad Contusion, Football player

Phase 1 - Reducing Pain and Swelling ~(weeks 0-3)

Have athlete wear a compression wrap with ice twice a day (NSAIDs if needed). Integrate static stretching and PNF stretching at patient's pain tolerance 3-5 times daily. Use bike with seat as low as possible. As pain becomes tolerable, massage with knee flexed and hip extended as much as possible.

Phase 2 - Increase ROM - (weeks 1-4)

After swelling has diminished, use hot-pack to warm up the muscle when stretching/exercising. Continue previous stretching and biking exercises as before. If necessary add wall/towel slides to help with ROM. Remove compression wrap when partially through phase two and athlete can tolerate pain. End with ice massage after rehab.

Phase 3 - Increase Strength ~(weeks 3-6)

Continue previous ROM exercises with heavier weights and progressively go to weight bearing exercises and cardiovascular exercises. Add in balancing and squatting progressions to stabilize the hip and strengthen the quad. Include abduction, adduction(hip only), flexion, extension(knee and hip), chair walk, leg press, and ball squeeze.

Phase 4 - Sport Specific - (weeks 4-8)

Continue with strengthening, balance, and proprioception exercises integrating sport specific exercises. Since the athlete is a RB, add in cone drills that involve cutting, change in direction, acceleration, deceleration, catching, etc. for optimal performance.

## Reflection # 11

Achilles Tendon Rupture - Spirit squad athlete

Phase 1 ~ Reducing Pain and Swelling - (weeks 0~4)

Post surgery: Patient will be in a cast for the first week or two. Keep wound covered with bandages/cast for first couple of weeks. Surgical wounds may be problematic when trying to gain ROM, so it is important to monitor those during phase 2. Limit physical activity and instruct them to keep their foot elevated above their heart as much as possible. GameReady(20 min with acewrap)

Phase 2 - Increase ROM - (weeks 3-8)

If given an Achilles boot (with bolster under the heel or 20 degrees plantar flexion) use to walk on full weight bearing when possible. Start with wall slides, ankle pumps (wall), quad sets (wall), and towel toe crunches. Then add in some slow bike peddling with little to no resistance. Progress with PNF and static stretching. Remember that aggressive stretching will lead to re-rupturing of the Achilles tendon.

### Phase 3 - Increase Strength - (weeks 8-16)

Continue with some of the previous ROM exercises with heavier weights and progressively go to weight bearing exercises and cardiovascular exercises i.e. faster biking with more resistance, treadmill. Add in walking with shoe only and squatting for strength and balance

### Phase 4 - Sport Specific - (weeks 15-22)

Continue with strengthening, balance, and proprioception exercises integrating sport specific exercises. Since the athlete is on the spirit squad it would be a good idea to ease into plyometric exercises dealing with impact(tumbling), front squat for stunting and lifting.

## Reflection #12

LCL sprain, Spirit squad athlete

### Phase 1 - Reducing Pain and Swelling - (weeks 0-6)

Post surgery: Patient will be in a cast/brace (25 to 30 degrees flex) from weeks 3-6. Keep wound covered with bandages/cast for first couple of weeks. Surgical wounds may be problematic when trying to gain ROM, so it is important to monitor those during phase 2. The patient should be non weight bearing for the initial phase of rehab. Limit physical activity and instruct them to keep their foot elevated above their heart as much as possible. GameReady(20 min with acewrap)

### Phase 2 - Increase ROM - (weeks 4-12)

Isometric contractions while in brace. 0-4 weeks 30 - 90 degrees 3-6 weeks 25 - 120 degrees physician protocol may vary. When brace is removed progress to seated and wall towel slides. Grade 1 and 2 patella joint mobs. Athlete may also begin 4 way hip in this phase to improve core stability.

### Phase 3 - Increase Strength - (weeks 8-16)

Continue with some of the previous ROM exercises with heavier weights/resistance and progressively go to weight bearing exercises and cardiovascular exercises. Some aquatic rehab may take place late phase 2, early phase 3 after surgical wounds are healed. After full extension is capable then do quad sets/ITKEs. Add in walking, running, biking squatting for strength and balance

### Phase 4 - Sport Specific - (weeks 15-22)

Continue with strengthening, balance, and proprioception exercises integrating sport specific exercises. Since the athlete is on the spirit squad it would be a good idea to ease into plyometric exercises dealing with impact(tumbling), front squat for stunting and lifting.

## Reflection # 13

ACL sprain (accelerated/no meniscal damage), Soccer athlete

### Phase 1- Reducing Pain and Swelling - (weeks 0-4)

The knee is initially going to be placed in a restrictive brace to allow for proper healing. Muscle pumps and massages along with compression and ice will decrease time of healing. Continue to use ice and compression throughout the rehab process to reduce pain and swelling.

### Phase 2 - Increase ROM - (weeks 3-16)

Isometric contractions while in brace. When brace is removed progress to seated and wall towel slides. Grade I and 2 patella joint mobs. A goal of 0 to 110 degrees knee extension should be reached by the end of weeks 3-4 then 125 degrees of extension by the end of week six and 135 degrees by the end of week 10 (some cases may be shorter or longer depending on patient compliance and person's rate of healing) Quad sets may also begin after pain and swelling have reduced. Prone knee hangs to help with extension.

### Phase 3 - Increase Strength - (weeks 12-24)

Continue with some of the previous ROM exercises with heavier weights/resistance and progressively go to weight bearing exercises and cardiovascular exercises. Some aquatic rehab may take place late phase 2, early phase 3 after surgical wounds are healed. After full extension is capable then do quad sets/TKEs. Add in walking, running, biking squatting progression for strength and balance.

### Phase 4 - Sport Specific - (weeks 20-36)

Continue with strengthening, balance, and proprioception exercises integrating sport specific exercises. Soccer players should concentrate on decelerating and making cuts, slow at first, then increase time on different types of terrain (grass, turf, hard wood, etc)

## Reflection # 14

DeL Sprain (Operative), Softball Player

### Phase 1 - Reducing Pain and Swelling - (weeks 0-4)

ROM should be limited to the hand/wrist while arm is stationary at 90 degrees in a sling. After sling is removed, initially limit full extension and flexion to allow for further healing. Modalities should include E-stim and ice.

### Phase 2 - Increase ROM - (Weeks 3-9)

After the first couple of weeks, can begin passive/active assistive ROM with elbow flexion/ext. It is possible to start on wrist/hand strengthening at this point. (putty, ball sand, etc). Progress from passive stretching to active assistive then active, and eventually light resistive (pain free) exercises i.e. t-band or manual resistance.

### Phase 3 - Increase Strength - (Weeks 7-14)

Continue previous exercises with increased resistance and increased speed with less reps. Add in *DIID2* patters. Thrower's Ten program, empty can, curls and tricep extensions should all be integrated throughout the strengthening program.

#### Phase 4 - Sport Specific - (weeks 12-24)

Continue with Thrower's Ten program, add in plyometrics ball bouncing 1<sup>st</sup> vertically on the floor or table then horizontally against the wall progressing throughout the ROM. Work on eccentric/deceleration throwing exercises. Initiate throwing progression(1/2 distance to first base throwing/catching increasing number of throws and distance over time). Begin to work on accuracy with targeted throwing.

## Reflection # 15

Poster Ankle Dislocation - Football Player(lineman)

#### Phase I - Reducing Pain and Swelling - (weeks 0-3)

To reduce swelling and inflammation limit ROM with a boot and add compression (either with GameReady or actual ice and ace wrap). Recommend NSAIDs to help w/ swelling and pain due to pressure. These modalities can be used in correlation with E-stim. **If** pain is tolerable begin isometric contractions with toes.

#### Phase 2 - Increase ROM - (Weeks 2-8)

After the first couple of weeks, can begin passive/active assistive ROM with toe and ankle flexion/extension(dorsiflexion/plantarflexion). After first couple of weeks progress to inversion/eversion. Begin resistive exercises with the toes including towel pull, rock/foam pick up. As with most ROM protocols, progress from passive stretching to active assistive then active, and eventually light resistive(pain free) exercises i.e. t-band or manual resistance. May also begin using BAPS board to initiate proprioception and balance.

#### Phase 3 - Increase Strength - (Weeks 6-12)

Continue previous exercises with increased resistance and increased speed with less reps. Begin balancing exercises with balancing as soon as the patient can handle weight-bearing exercises. Progress from two legs to one and from stable surface to unstable surface(could also try with eyes closed for increased difficulty). When ankle is stable begin calf raises.

#### Phase 4 - Sport Specific - (weeks 10-20)

Continue with strengthening exercises and increase difficulty with reps and weight. Utilize full functional activities such as squats, lunges, monster walks. When those can be accomplished work on plyometrics such as box jumps and agility drills using either cones or an agility ladder. Focus on quick starts and explosions off of the line. Finally towards the end the athlete should be able to push an athlete/sled from their initial lineman stance(running play) and be able to take posterior loading when a player comes at them during protection(passing play).

## Reflection #16

### Chronic Patellar Subluxation, Spirit Squad

#### Phase 1 - Reducing Pain and Swelling ~ (weeks 0-3)

Immobilize the athlete for the first few days of rehab to allow for healing and prevention of further injury. Keep knee in extension and begin treatment with ice, compression and E-stim. Recommend NSAIDs if necessary. Implement kinesiology tape to help with patellar alignment.

#### Phase 2 - Increase ROM - (Weeks 2-4)

ROM shouldn't be that bad. Begin as before with passive - active assistive - active - light resistive. There may be some pain with patellar maltracking issues and chondromalacia. Particularly focus on gaining pain free RROM with knee extension. To do this use a foam ball for TKEs and/or a t-band/manual resistance to do 4 way hip.

#### Phase 3 - Increase Strength - (Weeks 2-8)

Continue previous exercises with increased resistance and increased speed with less reps. Focus on VMO strengthening in order to pull the patella medially. Manual resistance, quad sets, hip sled, squats. Progress to functional squat and lunges in different planes/directions. Also add in balancing exercise for stabilization and strengthening.

#### Phase 4 - Sport Specific - (weeks 8-24)

Focus on maintaining and increasing medial VMO strength of the knee and continue to tape knee. Work on plyometrics and agility drills such as dot drills and step ups - box jumps. Progress to tumbling increasing difficulty with balancing/core exercises in correlation with the knee rehab.