

When dealing with the rehabilitation of a medial epicondylitis, I would start by icing the player and making sure that the player knows to limit his wrist and finger flexion outside of practice. I would not put any compression on the elbow because he already has altered sensation due to pressure on the ulnar nerve. The ulnar nerve is a very superficial nerve and if I put pressure on the elbow it will continue to irritate the ulnar nerve. Because this injury has been bothering the athlete for the past 3 weeks and he has not complained about it until recently, I would not pull the athlete from activity unless the injury becomes more severe. I would experiment with the grip width on the hockey stick by adding more tape. Finding the right width would require good communication between the athlete and me. Throughout the whole rehabilitation, I will continually check the ulnar collateral ligament (UCL) to make sure that it remains healthy. If I ever suspect a UCL strain because of laxity in a Valgus stress test, I would refer the athlete to a doctor to get an MRI right away. Some modalities that I would utilize throughout the rehabilitation would be: ultrasound at 3 MHz, .5 Watts, and a 50 percent duty cycle in order to try and have the area constantly adapting to the change in surrounding areas. The adaptations would help with the fiber alignment and also with the reduction of edema. I would also alternate using phonophoresis and iontophoresis. I would use the phonophoresis for pain control and the iontophoresis for edema reduction. I would use these modalities as needed throughout the rehabilitation.

When starting on the exercises, I would start with working on the athlete's flexibility. I would work on extension before any flexion so the athlete does not continue to put his hand in a position that further irritates the injury. I would work on wrist extension, supination, and elbow extension and flexion with the hand in a neutral position. I would start the exercises with just active range of motion. As the athlete progresses throughout the rehabilitation, I would start to incorporate manual resistance, then resistance through a Thera-Band, and then free weight resistance. When the swelling starts to go down at the medial epicondyle, I would start to incorporate some wrist flexion, pronation, and even some finger flexion. These exercises would progress the same as the wrist extension exercises with resistance. I would gradually incorporate the flexion because you do not want to push the athlete too fast because he could become reinjured. I would have the athlete work on finger extension against resistance using the grid. I could also use a bucket of sand to work on extension against resistance. When the athlete is ready for wrist flexion, he is also ready for some finger flexion. I would work on his grip strength using a variety of exercises. I would use puddy, the grid, sand, or a small walking weight. As the athlete continues to improve, I could use the sand and make the exercise more difficult by making him grab a handful of sand and pronate and supinate in the sand. From the beginning, I would have the athlete do some biceps curls and triceps extensions. As the athlete gets stronger, I would move from bicep curls and triceps extension to internal and external rotation with shoulder adducted. As the athlete becomes ready for a full return to play, I would make sure to reeducate the athlete on proper shooting techniques that limit the wrist flexion. We could do several exercises working on passing and shooting the puck with proper form.

S: Athlete reports no new pain today. He also reports that there is no new pain while doing his exercises. He is 18 days post initial injury

O: Athlete warmed up on the bike for 5 minutes and then performed the following exercises:

SLR's 3x12

Standing Hamstring Curls 3x15

Long Arc Quads 3x15

Step ups 3x12

Calf Raises (3 way) 1x15

The athlete did not ice after exercises because he went to weights immediately following his rehab.

A: ~~peL~~ sprain. Athlete was able to perform all exercises with good strength

P: Athlete will continue to progress with rehab exercises as tolerated.

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For my fifteenth rehab, I choose a basketball player with plantar fasciitis. I would start with a lot of stretching including: gastroc/soleus complex stretching, toe stretching, and stretching of the plantar fasciitis. During this rehab I will not be pulling the athlete from activity. I will tape the athlete with an arch tape when he participates in practice or a game. If the tape helps his pain then I would look into orthotics for the athlete because that would correct the biomechanics. I would utilize ice massage as one of my modalities. The most of this athlete's pain is localized around his medial calcaneal tubercle so I would concentrate the massage on this area. You could also have the athlete do at home ice massage with frozen golf balls or a frozen water bottle. Just have the athlete roll his foot over these items to get a massaging effect. Another modality that I would utilize is ultrasound. I would do this after the acute phases before stretching to warm the tissue to help with a greater stretch. I would use a continuous setting over the medial calcaneal tubercle. You could also use this in conjunction with the warm tub if you want to get an even greater heating of the tissues. If the athlete is having excessive pain or any extra inflammation in the subacute phase, you could also use iontophoresis as a modality. Depending on the medication that you put on the pad, it will help with the athlete's pain or swelling. I would also be utilizing a night splint in order to keep the foot in a dorsiflexed position. This is important because it will keep the planar fascia from shortening up over night causing that severe pain in the morning.

During phase two I would have the athlete focus his exercises on rock pick ups, towel curls, and plantar flexion and dorsiflexion stretching. During all phases of the rehab, I will have the athlete continue to stretch well and encourage good stretching habits even after the rehab is over. At the end of phase two and the beginning of phase three, I would have the athlete start to rock forward on his toes, hold for 3 seconds, and then roll back to his heels. This is both a strengthening exercises and it stretches. During phase 3 I would have the athlete do some calf raises, lunges, and sumo-squats. All of these exercises would start partial weight bearing and progress to full weight bearing and could even be more sport specific if needed in the progression. An exercise that I would use in the middle of phase 3 before allowing the athlete to do full lunges is an exercise with the affected heel back and the athlete would work on pushing off of it. This gets the athlete ready for the forces that will be applied to the structures during both sport and daily activity. During phase three and four I will work on plyometrics with the athlete. I would start with basic jumping in place and progress the athlete up to a box jump line or a set of depth jumps. During phase four I will also work on bounding with the athlete because he will need to handle those stresses with activity. Towards the end of phase four, I will make the athlete's rehabilitation more functional by working on a rebound drill where he has to jump up and grab a rebound, outlet the pass, and run down the court to get ready for offense. I would also work on defensive slides in a functional defensive drill. When the athlete is pain free and has 80 percent strength of his bilateral side, then he can stop the rehabilitation program. I anticipate that this rehabilitation program will take four weeks to get the athlete back to pain free functional play.