

Left Ulnar Collateral Ligament Sprain in a 19- Year- Old Female Gymnast: A Case Study

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Background Information

- The ulnar collateral ligament (UCL) is the primary medial stabilizer of the elbow.⁴
- Injuries to the UCL are most often seen in males in overhead throwing sports.⁴
- Nonsurgical rehabilitation has been shown to have positive outcomes in non throwing sports.³
- An overshoot is a release from the high bar to the low bar with a half turn to catch on top of the low bar.

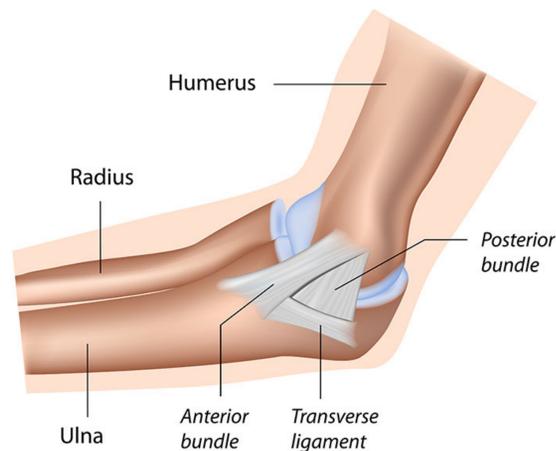


Figure 1: Elbow UCL

Retrieved from: <https://www.lmh.org/get-care/orthokansas/elbow/ulnar-collateral-ligament-of-the-elbow-reconstruction/>

Case Presentation

- 19-year-old female gymnast was performing an overshoot on the uneven bars and felt a sharp pain at the medial elbow
- The patient was experiencing pain to the touch and with valgus force but no laxity was felt.
- Patient was diagnosed with a UCL sprain and was given a two week at home rehabilitation program over winter break
- During the break, the patient was instructed to avoid all activities that caused pain
- The patient had no change in symptoms or abilities after break, and was removed from participation completely
- The patient began a second rehabilitation program and was able to return to participation after three more weeks and returned to competition after four

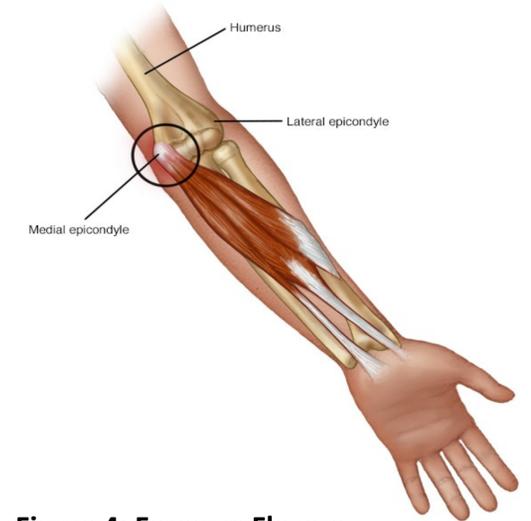


Figure 4: Forearm Flexors

Retrieved from: <https://www.mayoclinic.org/diseases-conditions/golfers-elbow/symptoms-causes/syc-20372868>

Interventions

- The rehabilitation program focused on forearm flexor strengthening and external rotation exercises
- Laser treatments were implemented before the exercise program during the second rehabilitation program
- Gymnastics specific activities were incorporated into the program including handstand shoulder taps and bar swings when the movement was no longer painful

Conclusion

- The majority of UCL injuries can be managed conservatively
- A high magnitude of forces are present on the upper body during the uneven bars event in gymnastics
- Rehabilitation programs focused on forearm strengthening is beneficial for strengthening the medial elbow.

Clinical Bottom Line

- The incidence of nonsurgical UCL injury patterns and management in populations of non-throwing athletes is unknown.⁴
- Few studies have been published on the incidence of injury and return to play recommendations in gymnastics.²
- Rehabilitation programs focused on forearm strengthening can help the patient return to play without the need for surgical intervention.¹



Figure 2: Mid-Overshoot after High Bar Release

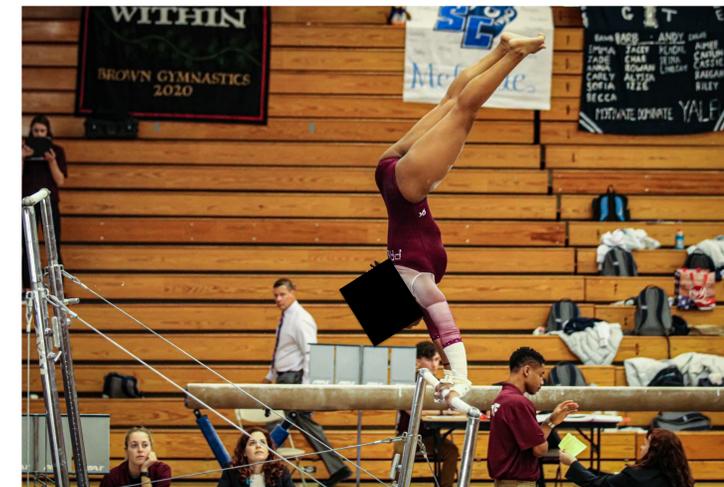


Figure 3: Catching Overshoot Release

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