

Elbow Injury

in Throwing Athletes

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In my last article for “The Training Room”, we discussed biceps tendinopathy in throwing athletes.

This time we’re going to focus on the elbow, describing problems seen in both younger athletes and mature players. Almost all injuries to the elbow result from the tremendous “valgus” force placed on the joint during the acceleration and ball release phases of throwing.

This is a sideways force across the joint that compresses the lateral or outer portion of the joint, while stretching the medial or inner portion. (See picture.)

Interestingly, this valgus force is the same whether you are an overhand baseball thrower or underhand softball pitcher. As we said in our last article, softball pitching is no less stressful just because it is underhand!

In young throwers the “weakest links” in the elbow are the growth plates of the bones. The growth plate in the inner portion of the elbow is pulled open by the tension of the valgus force when throwing, while the outer growth plate is pushed closed. Both opening and closing of the growth plates can lead to pain in the elbow and are often referred to as “Little Leaguer’s elbow.”

The best ways to prevent growth plate injury

are to limit the number of pitches thrown each week (something Little League Baseball has known for decades, but is not enforced in girls softball) and by ensuring that proper pitching mechanics are followed.

In adult players the growth plates have closed, so the weakest link is now the joint ligaments. In particular, the ulnar collateral ligament on the inside of the joint is stretched and can eventually tear, leading to elbow instability. When this happens, the elbow requires reconstructive surgery, commonly known as Tommy John surgery.

As with younger players, watching your pitch-count and making sure pitching mechanics are optimal is the best

prevention. Weight-training both in pre-season and during season can also help. The best exercise for this is wrist curls

1. Using a dumbbell or barbell with forearms resting on thighs and palms facing up, lower the weight until it is resting on your fingertips

2. Curl the bar up until your wrists are completely flexed. Three sets of 10 with a moderate weight should do the trick.

As always, consult a health-care professional when you have any

questions. A certified athletic trainer or sports physical therapist are your first choices for care and may prevent a trip to the “Tommy John” doctor.

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