by

NOCA BASEBALL

"Medial Elbow Pain from throwing occurs in 70% of all players." ... Review of Epidemiology of Pediatric Elbow Injuries in Sports.

Below is a precent picture of a 15 Year Old Player. Righthander. Look at the Right Scapula and compare it to the Left Scapula. Do you notice the difference?



The types of arm pain and the pathologies of those pains are as unique as the players themselves. Believing a coach, instructor, or parent should and will understand this aspect, biomechanics, origins, treatment, and any other dynamics is simply an unfair expectation. A medical professional needs to be consulted and the biomechanics needs to be evaluated in order to have an accurate assessment (**Baseline**) of a player. From there, **Functional** (strength, flexibility), **Neuromuscular** (specific sequencing of muscular firing patterns; brain's ability to communicate to body), and **Structural** (skeletal, body's alignment; often dynamic and ever changing during puberty) assessments can provide us with a **Customized Regimen of Training**. This applies to all ages and all skill levels. In fact, the younger you start, the better you'll be.

Elbow Pain rarely correlates to deficiencies in the elbow. The origins occur way further up the line. The shoulder will direct the elbow. At *NOCA Baseball*, we subscribe to the philosophy, "*it's never your arm's fault!*" Simply explained, the arm is the recipient of previous movements, geometrics, mental approaches, and functionality. It is typically the throwing arm that ends up hurting and being the catch-all for all symptoms.

See the two pictures below. Picture #1 is a left-handed pitcher. Medial elbow pain was diagnosed along with **ulnar neuritis.** He saw a physician. He was prescribed rest and anti-inflammatories, as is standard treatment, then sent on his way. No therapy or return to throwing program was prescribed. (*Picture and Diagram below provided by Eric Cressey*)

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Can you see how he sits in heavy scapular depression on the left side? It's likely that his ulnar nerve symptoms are originating further up the chain. You couldn't "fix" this player's mechanics through pitching lessons no matter how hard you tried!

Picture #2.



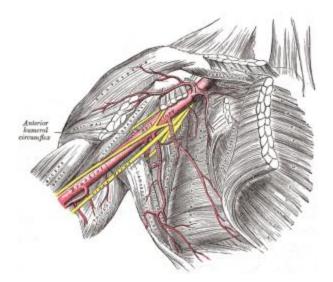
Above is a picture of me at 17 years old (Summer of 1992; that's actually my older brother just below me). Notice my right shoulder dipping down. It wasn't because I just listened to Vanilla Ice! The entire shoulder is depressed/seated because I pitched every inning in every playoff game for 2 straight years, led the state in innings pitched during Prep, and led my Legion team in innings pitched as well. I commonly pitched on No Days Rest, in throbbing pain, and anything else that was needed by my team. I willingly and adamantly demanded the ball, so don't think I ever begrudgingly pitched. I suffered from elbow pain for almost 3 years straight until I turned 20 (finally levelled off with puberty). I started to work out differently and altered my pitching mechanics to be more balanced after Foot Strike. I would often compete through the pain, take

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prescribed anti-inflammatories and use ice as a prophylactic. I had no idea of the contributing factors or what I could to make the pain stop besides just refusing to pitch.

The phenomena of Over-Throwing still occurs, but EVERY kid focuses on the radar gun. This phenomena places the Under-Thrown Players are in danger. A greater percentage of today's players put themselves at risk of under-performance and injury. The causes are improper mechanics, inappropriate mental approaches, coaches that only care about wins, and poor training regimens.

See diagram below. Take note on how the brachial plexus/ulnar nerve runs right under the clavicle as it courses down toward the elbow.



Migrate the scapula and clavicle down, and you can easily compress the nerve (and vascular structures) to wind up with **Thoracic Outlet Syndrome**, a very common but under-diagnosed condition in overhead throwing athletes. Although often missed, our more forward-thinking upper extremity orthopedists accurately diagnose this more today than ever before.

If this player goes out and adds load (works out with weights, does some scam Velocity Program, throws or <u>holds</u> Heavy Balls) or even just starts Pitching Lessons with the local pitching instructor, then you are asking for very real trouble.

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It's simply unacceptable to allow this to continue. We have to be smarter today. We have the data to guide us, so it comes down to education and awareness. *NOCA*'s mission is to teach kids (as young as 7 years old), parents, and coaches how to recognize the warning signs, how to access the data, how to train the athlete, how to customize coaching to each player, and how to teach communication with players. It also means that players need to exist in a **No Fail Environment** and feel super-comfortable communicating with the adults in charge.

Lastly, it means that the coaches really need to be Mentors. Sadly, this is not the case in Travel or Prospect Baseball. There should be Zero Tolerance for those youth coaches that focus on wins, act like a deranged fan rather than a role model, and forget that every movement made is being observed and absorbed by young players. Placing development over wins and focus on the process.

What to do?

- Step 1: Email NOCA Baseball at info@nocabaseball.com.
- **Step 2:** NOCA will get you to one of our Sports Medicine trained Orthopedists from our **Orthopedic Referral Network within 48 hours.** If you already have an Orthopedist, it's probable that he/she is already in our network.
- **Step 3: NOCA Baseball** will then customizes a conditioning and throwing program that allows you to be more efficient, throw harder, and keeps you from repeating the same mechanics that caused this issue in the first place.