

ARTICLES

SHOULDER INJURY PREVENTION IN THE OVERHEAD ATHLETE

By Brandon Penas, PT

Do you ever wonder how fast the human arm has to move in order to throw a baseball greater than 90 miles per hour? The answer: roughly 0.03 seconds from the cocking phase to ball release, thus making the overhead throwing motion one of the most violent, ballistic motions the human upper extremity undergoes. In the sport of baseball, the incidence of both elbow and shoulder injuries among professional and youth players is dramatically high due to the repetitive distraction, compression, and shear forces placed on the shoulder and elbow. In professional baseball, 50 percent of all injuries occur at the throwing shoulder (28%) and elbow (22%). Moreover, fifty percent of youth baseball players between the ages of 9-14 years old complain of shoulder or elbow pain with the number of severe, ligament-related injuries on the rise. In order to decrease the risk of injury, an overhead athlete's body must be developed and consistently maintained year round.

This four-part series will examine and provide various solutions to the underlying factors that predispose athletes to injury associated with overhead throwing/pitching. The four areas that will be addressed include:

Part 1: Throwing Injury Prevention Guidelines for the Underdeveloped Pitcher

Part 2: Pitching Mechanics

Part 3: Shoulder strengthening for the Overhead Athlete