

Improving Your Son's Pitching Velocity

Young pitcher are always looking for ways to throw harder and some at the expense of hundreds of dollars on private pitching lessons or videos which often advertise a magic bullet technique or drill. Yet, like many other endeavors related to improving athletic performance there are no short cuts or infomercials that ever live up to the billing. A time tested method that does provide results is strength training combined with improved pitching mechanics.

Pitching velocity is generated from everything but the arm. This is a very important concept as many young kids (and their parents) think that throwing inning upon inning in the spring, summer, and fall will increase their arm strength and allow them to throw harder. This philosophy only leads to injury and burnout, as pitching with fatigue has been identified as the number one risk factor for youth arm. Pitching in the youth stages can be beneficial, it has to be monitored and inning totals have to be controlled.



Improving his lower body strength and control is the quickest way to adding MPH's to your son's fastball. A high percentage of kids seen in the McLeod Sports Medicine Clinic with arm injuries are not able to perform single leg squats or other movements that indicate strength. While this is not unusual for kids, these deficits manifest as power loss during the pitching motion. An important consideration to consider with these exercises is that they need to be performed correctly to activate the right muscles moving in the right patterns. Otherwise, your son will only be reinforcing his deficits. For a free PDF handout highlighting key lower body and core strengthening exercises, email Dave Stoklosa at DStoklosa@mcleodhealth.org.

Timing is the other key factor of the pitching motion that generates power. Look at the hip and shoulder relationship and trail leg position. An efficient pitcher will use his hips to rotationally accelerate his shoulders but often times younger pitchers will lose power due to their hips opening too soon. A great exercise to improve this timing is "step behind medicine ball" shot-put throws into the wall. The pitcher will perform a step behind side-shuffle step followed by an explosive pitching stride, rotation, and medicine ball throw. It is important to ensure that the hip rotation is followed closely by shoulder rotation without a delay in timing. We want the back hip (right hip for right handed pitchers) to drive the right shoulder towards the plate.

One mechanical characteristic of high velocity throwers is full extension of the trail leg just before lead leg contact. Full extension of the trail leg indicates the pitcher is generating the most momentum towards the plate with his lower half instead of attempting to generate all velocity from

his arm. A simple exercise to improve this technique is to perform leg kick broad jumps. The pitcher (without a ball in his hand) will use his normal leg kick and instead of normally striding to home plate, he will attempt to explode off his back leg by fully extending his knee and hip and jumping towards home plate for maximum distance. Resistance bands can be used around the pitcher's hips for additional strengthening.

Teaching young pitchers good habits from an early age is vital, as correct form will improve performance and decrease injury risk. Pitching is a complex task that requires sequencing of multiple moving body parts. **Continuous throwing all summer will not improve your son's arm strength.** It will put him at a significantly greater chance for injury. Don't keep searching for magic bullets. Teach fundamentals. Strengthen lower bodies.

-Brad Seger, PT

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