

STOP Thinking Long Toss Is About Building Arm Strength

April 22, 2016

The 4th installment of my "STOP" series:

[STOP doing this throwing drill](#)
[STOP focusing on the throwing arm](#)
[STOP making your pitchers 'Stand Tall'](#)

Today we dispel the idea that long toss is about building arm strength as it's the most common response I receive when I ask 'Why is long toss so important?'

Even [a recent NYT Op-Ed](#) insinuated that a healthy pitching arm is centered around developing arm strength:

Baseball Is Injuring Too Many Kids

By JEFF PASSAN APRIL 9, 2016

throw a maximum of one inning at a time, once a week, 30 pitches tops. The rationale behind my rules is simple: **These boys have got years to build up arm strength.** Until research shows more conclusively what is — and what isn't — a safe

STOP thinking long toss is about building arm strength. It's not.

It's been known for more than 20 years that [velocity is NOT about arm strength](#):

Am J Sports Med September 1995 vol. 23 no. 5 638-642

Eccentric and Concentric Strength of the Shoulder and Arm Musculature in Collegiate Baseball Pitchers

flexion strength ratios ranged from 71 % to 110%; eccentric strength averaged 33% higher than concentric strength. **No differences were noted between dominant and nondominant limbs for any of the strength measures or ratios.** Clinically, the findings of this study can serve as a reference during the

When you look at a pitcher who throws 95 mph, is their throwing arm any bigger than their non-throwing arm? NO.

Long toss is NOT about building arm strength.
Long toss is about timing.

“TIMING is EVERYTHING”

What kind of timing? Let's look at hitting.

When hitters practice, they work on hitting the ball with the maximum amount of energy.

Where does that hitting energy come from? The hitter's arms? NO. Their legs.
So...hitters practice to perfect the **TIMING** of transferring energy from their legs into their arms.

This is called 'The Kinetic Chain' and [it's also used in pitching](#):

**The Kinetic Chain in Overhand Pitching:
Its Potential Role for Performance
Enhancement and Injury Prevention**

**THE KINETIC CHAIN'S INVOLVEMENT
IN THE PITCHING MOTION**

The pitching motion consists of 6 phases (Figure 1): windup, early cocking/stride, late cocking, acceleration, deceleration, and follow-through.^{10,12,17,22} These phases are intricately coupled, resulting in **efficient generation and transfer of energy from the body into the arm and, ultimately, the hand and ball.**

When a pitcher throws 60 feet off the mound, their timing can be off but they will still get the ball to the plate.

When a pitcher has to throw 180 feet (the max recommended distance that [you can learn more about here](#)), if their timing is off they won't get the ball there.

As [Tom House of the National Pitching Association says](#):

"Distance magnifies throwing mechanics mistakes."

If you want to learn more about long toss and how to include long toss into your throwing program, you can subscribe to [my video library](#) by [clicking here](#).

Have Questions About This Newsletter?

Contact (PitchingDoc@msn.com / 631-352-7654) Dr. Arnold!