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5 Ways to Protect Your Throwing Arm in 2014 January 30, 2014

#1: Weighted jump rope

- ✓ 3 1-minute sets per day for 12 weeks can increase external rotation strength by 55%:
- ✓ Why is this important? Because <u>external</u> rotation weakness is a risk factor for injury:

The Effects of Jump-Rope Training on Shoulder Isokinetic Strength in Adolescent Volleyball Players

Preseason Shoulder Strength Measurements in Professional Baseball Pitchers

Identifying Players at Risk for Injury

#2: Medicine Ball Deceleration Training

- ✓ <u>The most stressful part of the throw</u> is after ball release (see right picture)
- ✓ Using medicine balls can help strengthen your arm to better handle the follow-through.



#3: Proper Long Toss

- ✓ National Pitching Association Recommendation \rightarrow 120 feet
- ✓ Throwing > 180 feet does not increase velocity BUT <u>significantly increases arm stress</u>:

Biomechanical Comparison of Baseball Pitching and Long-Toss: Implications for Training and Rehabilitation

✓ General Rule: Throw as far as you can on a line up to 180 feet.

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#4: Checking rotator cuff muscle strength

A low strength ratio between external and internal rotator cuff muscles can increase injury risk by 39%:

Preseason Shoulder Strength Measurements in Professional **Baseball Pitchers**

Identifying Players at Risk for Injury

This can be checked with muscle strength testing software: \checkmark





#5: Doing a Video Analysis

"Several MLB baseball teams are proactive and get biomechanical analyses of their healthy pitchers to reduce their risk of injury, maximize their performance, and provide a baseline measurement they can use to compare in case injuries arise."

> -Glen Fleisig, PhD American Sports Medicine Institute Research Director

Before



- Higher position of both glove and throwing elbows
- Greater body control (note how the 2 lines are closer on the right)
- Greater glove control (note how the 2 circles are closer on the right) More weight transferred
- onto the front leg •
- Longer stride



Have a Question About This Newsletter? Call (631-352-7654) or email (PitchingDoc@msn.com) Dr. Arnold!

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