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# Hip Flexibility and Velocity / Trans Fats in Muscle Milk December 6, 2010

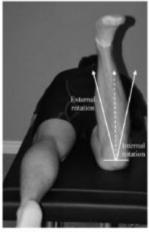
A new study:

## Passive Ranges of Motion of the Hips and Their Relationship With Pitching Biomechanics and Ball Velocity in Professional Baseball Pitchers

Andrew J. Robb, Glenn Fleisig, Kevin Wilk, Leonard Macrina, Becky Bolt and Jason Pajaczkowski Am J Sports Med 2010 38: 2487 originally published online August 31, 2010 DOI: 10.1177/0363546510375535

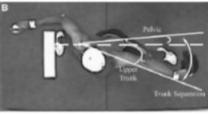
(http://ajs.sagepub.com/content/38/12/2487.abstract?etoc)

Measured hip flexibility and assessed pitching mechanics in 19 professional major league pitchers:











They found that <u>hip flexibility had a direct effect on 2 very important aspects</u> of the pitching delivery:

#### Stride Length

- The stride **must be at least 90% of your height.** Stride length also has to do with **momentum and timing**.
- If your stride length is off, bad timing will result, resulting in decreased velocity and possibly injury.

#### **Hip-Shoulder Separation**

• This is the "torque" that is (1) THE MOST IMPORTANT generator or throwing velocity and (2) a cornerstone of Tim Lincecum's delivery (click here to read more about Linceum's mechanics)

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• The greater the hip-shoulder separation, the higher the velocity:

motion. Presumably, having more range would permit greater kinetic energy production, ultimately producing greater ball and angular velocity. Of the total arc of

#### **How Do I Increase Hip Flexibility?**

• Did some internet searching and found a very good wesite with <u>7 Dynamic Hip Stret</u>ches to incorporate into your training program.

### Trans Fats in Muscle Milk? What's Next?!?!?

I recently did a Protein Supplement Review newsletter (<u>click here for that newsletter</u> - also attached) stating my EXTREME DISAPPROVAL of Muscle Milk because the shakes contain Splenda, vegetable oils, and Acesulfame-K (<u>click here for that newsletter</u> - also attached).

I have now discovered that **Muscle Milk Bars contain Trans Fats** (stated on the label as "Partially Hydrogenated Vegetable Oils"):

http://www.cytosport.com/products/muscle-milk/muscle-milk-bars

#### Why are Trans Fats Bad For You?

- Trans fat raise LDL ("Bad") cholesterol and lower HDL ("good") cholesterol, <u>increasing</u> your risk for heart disease
- Research has shown that groups with the highest intakes of Trans Fats can <u>increase their</u> risk for heart disease by as much as 50%.

All of this in a "healthy" sports supplement relentlessly marketed to your children.

Hope this helps. Best of luck.

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