Complete Chiropractic Healthcare

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Are Curveballs Harmful?

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Every young pitcher wants to throw curveballs and the debate rages as to whether they're causing injury.

So what's the answer?

This 2008 study out of the American College of Sports Medicine:

A Biomechanical Comparison of Youth Baseball Pitches

Is the Curveball Potentially Harmful?

cites some scary statistics:

ing that the curveball was associated with a 52% increased risk of shoulder pain and the slider was associated with an 86% increased risk of elbow pain.[19] In a study comparing the

And while high pitch counts can cause arm injuries, the TYPE of pitch causing injuries still isn't certain:

demiologic research suggests that arm pain or surgeries among young pitchers are associated with quantity of pitching, but the results are inconclusive on the relationship to pitch types.

Fortunately, this 2006 study helped answer the question:

Kinetic Comparison Among the Fastball, Curveball, Change-up, and Slider in Collegiate Baseball Pitchers

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Where they showed ***curveballs to put 9% less stress on BOTH the elbow and shoulder*** compared to throwing a fastball:

TABLE 1
Comparison of Joint Force and Torque Among Pitch Types (N = 29)

	Fastball	Curveball	Change-up
Arm cocking phase			
Elbow varus torque (N·m)	34.8 ± 15.4	31.6 ± 15.2	29.0 ± 14.8
Shoulder internal rotation torque (N·m)	35.2 ± 15.6	31.9 ± 15.3	29.5 ± 15.0

Leading the researchers to conclude:

> UCL strain. Therefore, all present scientific evidence seems to indicate that the curveball is not a more dangerous pitch than the fastball at the youth or collegiate level.

So why the increased risk of pain from throwing curveballs and sliders in youth pitchers?

CONSISTENCY OF MECHANICS!

> level pitchers in this study. This suggests that collegiate pitchers are able to maintain more consistent pitching mechanics and better proficiency. Youth pitchers also demonstrated con-

So if your pitchers cannot pitch with a consistent motion,
they shouldn't be throwing curveballs.

Have A Question About This Newsletter?

Call (631-352-7654) or email (PitchingDoc@msn.com) Dr. Arnold!