Fast facts

• In a study published by the American Journal of Sports Medicine in August 2002, researchers followed 467 baseball pitchers (ages 9 to 14) for one season. Among their findings: The throwing of sliders increased the risk of elbow pain by 86 percent; the curveball increased the risk of shoulder pain by 52 percent.

• The journal noted that although muscle soreness is normal and necessary in a pitcher's development, joint pain is not.

• Authors of a study published in Medicine & Science in Sports & Exercise, found that youngsters who throw more than 75 pitches a game are 50 percent more likely to suffer elbow pain than youngsters throwing fewer than 25 pitches a game.

• The medcosupply.com Web site has distilled journal articles compiled by noted orthopedic surgeons, including renowned orthopedist James

YOUNG ARMS

- Over-the-top pitching throws off young arms
 Case studies
- Every player under count
- Decision protects son's
- arm • Coach K's 10 tips
- <u>Knuckle curve easier on</u>
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- <u>Q&A: Dr. Timothy</u> Kremchek
- Q&A: Larry Redwine
- Q&A: Ted Power
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Andrews of Birmingham, Ala. Among the conclusions: The answer to avoiding youth pitching injuries does not lie in throwing less, but rather in throwing more. The key is to throw fewer pitches in game situations. The site recommends implementation of an interval throwing program. This is a combination of short-toss and long-toss exercises between pitching appearances.

• Another Web site, infosports.com, interviewed former major-league pitcher and manager Larry Dierker and Vern Ruhle, now a pitching instructor in the Reds minor leagues, and concluded that "the main reasons for arm injuries is not overwork per se, but overwork because the arm is not sufficiently strong in the first place ... Few, if any youngsters do nearly enough throwing, particularly long-toss."

• According to the USA Medical & Safety Advisory Committee, coaches need to be aware not only of pitch counts but also of what is known as "multiple appearances." Here is how the committee explains it: "Because a youth pitcher usually stays in the game at another position after pitching, the player is eligible to return to the mound later in the game. ... While it may be a good strategy to have a starting pitcher come back and finish a game, it is not a good idea from a health and safety perspective. Muscles, tendons and ligaments need time to 'cool down' after physical activity, just like they need time to 'warm up' before activity."

• In an article in the American Baseball Foundation newsletter by David Osinski, titled "Youth Pitching: Fleeting Glory - Long-term Results," Dr. James Andrews is quoted: "The best pitchers in the country never make it to the majors because they're the ones in youth leagues and high school who are overused. We're seeing more injuries now because these kids are having more pressure to throw at higher velocities. They're throwing more sliders, more stress pitches. But the crux of the problem is we don't have enough quality pitchers to go around (in the majors) because the good, quality pitchers are being hurt in the youth leagues." The article also discourages the use of weighted baseballs, which are still used by some dads in the Tristate. It is a practice vehemently deplored by local pitching gurus because it strains the arm and can lead to further problems.