

Little league, long term effects

By SHELLEY K. WONG
Associated Press Writer

HARTFORD, Conn. - With baseball glove in hand, 13-year-old Jason Moore stood shirtless in a lab at Connecticut Children's Medical Center, his arm raised as he poised to deliver a pitch.

His father, Chris Moore, a coach for 10 years, chuckled at the sight.

"What have I got you into, Jay?"

With 40 reflective balls stuck to his body and 12 cameras recording his every move, Jason threw pitch after pitch as researchers at the Center for Motion Analysis watched.

Jason is part of an ongoing hospital study, one of several at motion analysis centers across the country, that looks at factors behind Little Leaguer's elbow - elbow injuries affecting young baseball players. Researchers are expanding their biomechanics studies to include children in an effort to reduce injuries in athletes of all ages.

"There are a lot of theories but no actual clear understanding of the causes of these problems," said Dr. Carl Nissen, an orthopedic surgeon at the University of Connecticut Sports Medicine.

Nissen is conducting the study in response to the sharp increase of elbow injuries in young players

over the last decade.

"If I saw a dozen elbow problems in the first few years I worked, I now see well over a 100 a year and the number of times I have to operate has exponentially grown more than that," he said. "It's not just the number of injuries but the severity of them."

CCMC is one of a handful of centers at children's hospitals technologically and financially capable of doing motion analysis, Nissen said. Other centers capable of doing similar research are in San Diego, Philadelphia, Birmingham, Ala., and St. Paul, Minn.

The Hartford center uses imaging technology to translate the player's body and motion onto a computer in three-dimensional form. A computer program then processes the data to measure aspects like movement and throwing patterns. The technology used to collect data is the same used in video games.

Arnel Aguinaldo, director of the Center of Human Performance at the Children's Hospital in San Diego, said recent technological advances have helped increase interest in studying little leaguer's elbow.

"For those in the field, the technology has caught up to where we can look now with a certain amount of confidence and reliability when before we were

limited," Aguinaldo said.

His center mainly studies the mechanics of adult pitchers, including major and minor league baseball players, but has begun work with an orthopedic clinic in Los Angeles to determine what factors relate to elbow and shoulder injuries in younger players.

And though the study is not complete he said he has noticed that young players with more experience have less shoulder and elbow stress because they use a correct pitching form.

"There is a certain pattern in order for the stresses on the elbow and shoulder to be minimized," Aguinaldo said.

He believes pitching technique combined with excessive arm use cause elbow problems.

Like Aguinaldo, Nissen postulates the chief cause behind elbow injuries is overthrowing.

"When I was growing up you played three sports," Nissen said. "Right now these kids are playing soccer for 11 months out of the year or baseball 11 months out of the year and the body never gets to recover. The repetitive motion eventually wears down a young body. I think that's what causes it."

Among the questions the center hopes to answer is whether throwing curveballs increases risk of elbow injuries in adolescent pitchers.

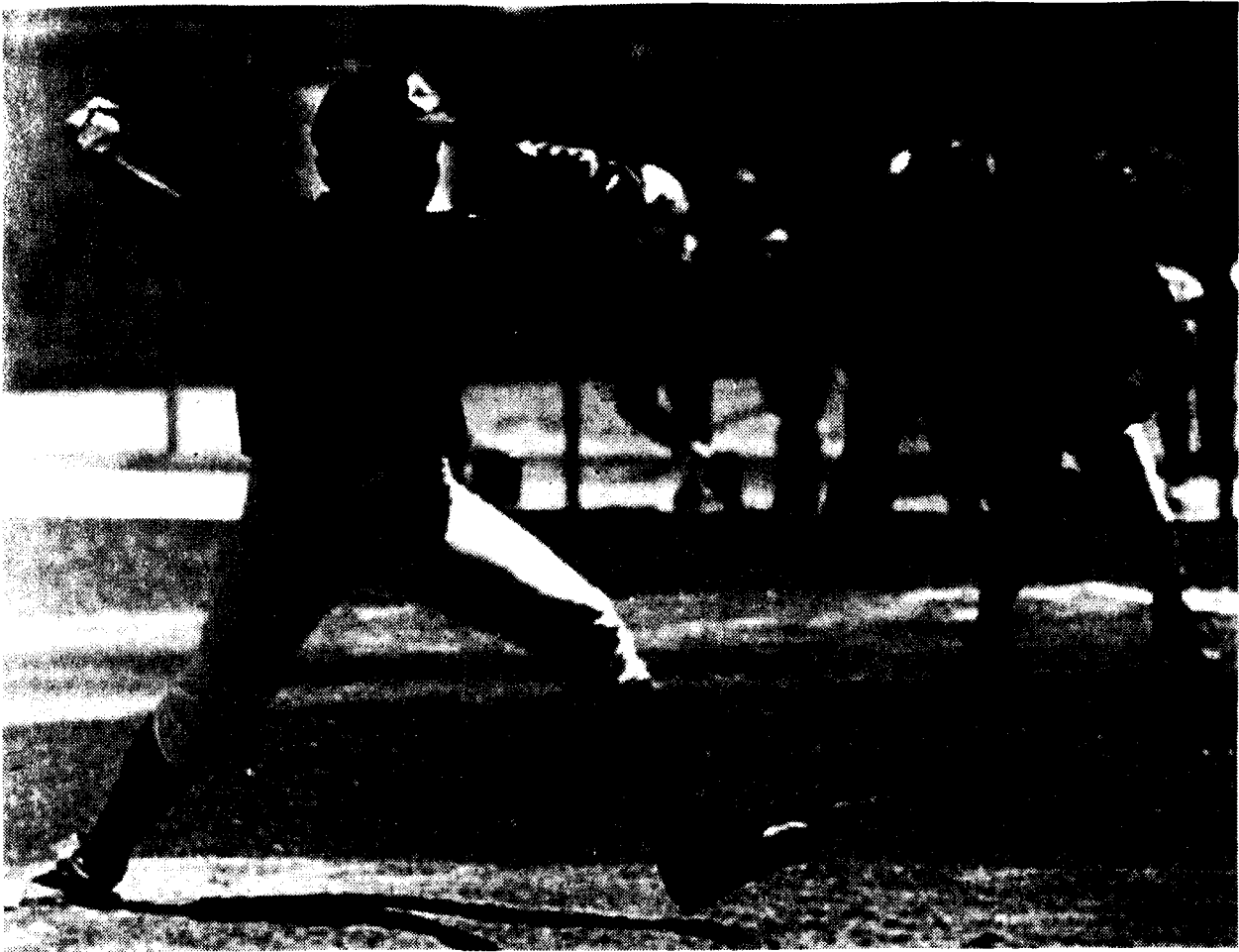


Photo courtesy of google.com

Little league pitchers participate in a study to see if their love of baseball will hurt them later in life..

A 1999 epidemiology study done on young players by the American Sports Medicine Institute in Birmingham hoped to answer the same question. Instead of using computers and cameras to get results, it used a questionnaire

to interview subjects. The study showed the curveball did not put more stress on the arm than a fastball but that a slider did.

"To get to the bottom of this, ASMI and other researchers need to provide epidemiology/

clinical research together with biomechanical research," said Glenn Fleisig, chairman of research at the Alabama institute.

"It's good to have different centers to open the doors and test people out and come up with answers."

Lions' ferocity keeps them ahead

By Matthew Miller
Sports Columnist
mgm5000@psu.edu

If you had to describe the style of play the Nittany Lions' football team employs, it may read like an old Batman comic. There would be a lot of SMASH, POW, and BAM!

Their name does them justice; these Lions play with an intense ferociousness matched by few in the country. This team plays to hit, and believe me, they hit hard. Whether it's junior tailback Tony Hunt leveling tacklers, or senior defensive end Tamba Hali decapitating opposing quarterbacks, players on both sides of the football play with reckless abandon.

The defense has been dominating once again. Led by captains Paul Posluszny and Alan Zemiat, this defensive unit is out for blood. No quarterback is safe, whether he is in the pocket

running away from pass rushers Tamba Hali and Matt Rice, or throwing the ball into the Big Ten's best secondary. This unit is just fun to watch; they are reeking havoc in the backfield and forcing turnovers left and right. Each player is always extremely aware of his surroundings, and their heads are always in the game.

Need some evidence? When Hali forced the fumble that ended the Ohio State upset, Scott Paxton was right there to fall on the ball. When the game was hanging in the balance at Michigan, Alan Zemiat stripped the ball from quarterback Chad Henne and returned it for the go-ahead score. This is a team that plays to win; they go hard on every play and it is evident when you watch them play on Saturdays.

Penn State's tenacious play isn't limited to defense. It can clearly be seen on offense as well. It almost looks as if the offense and defense have contests to

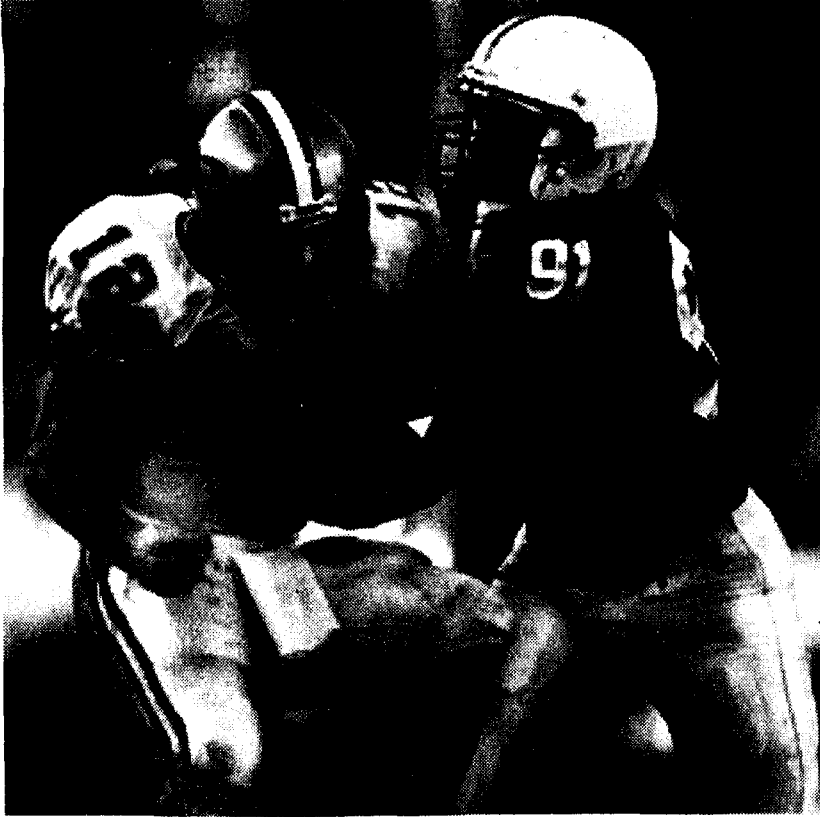


Photo courtesy of The Patriot-News

Hard-hitting Tamba Hali crushes Purdue's Curtis Painter. The Lions have been playing with aggressive ferocity all season.

see who can hit more during a game. It appears as if Tony Hunt is extremely angered when he is handed the ball due to the fact that he breaks around 3 tackles every play. His combination of balance and power is really impressive and is rarely tackled after the first hit, almost looking for contact rather than running away from it.

Saying Michael Robinson is a freak is a slight understatement, he has to be one of strongest quarterbacks in the nation. It is amazing to see a quarterback break tackles the way he does. Sure, others can be faster and more elusive than defenders, but rarely can a quarterback break tackles one on one as he does. His most impressive display of power came verses Minnesota this season. Robinson scrambled to the right side of the field, lowered his shoulder and annihilated safety Brandon Owens. When Robinson stood over his victim,

the crowd went wild as they saw their quarterback effectively end that poor defensive back's season. It's sad, but really an impressive display of how strong Robinson is.

All across the field, and on both sides of the ball, PSU is playing with a purpose. Whether it's a high flying tackle or a massive block from the line, the Lions are tearing and clawing their way to the top..

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Matthew Miller here
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Why should these ladies be the only ones that roar?

contact Karlaan Carlton/948.6744/rlc122@psu.edu