Epidemiological Studies

• Over the last ten years at ASMI, because of this epidemic of throwing arm injuries, we have done the following epidemiological studies with the hope that we could “prevent some of these injuries”

• We have also been instrumental in changing some of the rules in youth baseball to prevent injuries!!
A Few of These ASMI Studies Include:

- **Effect of pitch type, pitch count, and pitching mechanics on risk of elbow and shoulder pain in youth baseball pitchers**
  

- **Risk factors for shoulder and elbow injuries in adolescent baseball pitchers**

The Take Home Message in These ASMI Studies Showed That if a Young Pitcher Throws with Fatigue He Has a 36 to 1 Times Risk of Injury.
From these ASMI epidemiology studies, the USA Baseball Medical & Safety Advisory Committee has made the following recommendations and position statements on Youth Baseball Pitching Injuries.
Injury Prevention


– Pitch count chart
  • Pitches per game, season, year
  • Ages 9-14 yrs

– Discourage
  • Breaking pitches
  • Multiple leagues
  • Showcases
  • Year-round baseball

– Encourage
  • Good mechanics
  • Good conditioning
From These Studies and Recommendations, the Little league Got Involved in Injury Prevention

• Little League Pitch Count Rule (2007)
  – Pitches allowed per game
    • 17-18 yrs  105 pitches
    • 13-16 yrs  95 pitches
    • 11-12 yrs  85 pitches
    • 10 and under  75 pitches
    • 7-8  50 pitches (2008)
  – Days rest after pitching
    • 61 or more pitches  3 days
    • 41-60 pitches  2 days
    • 21-40 pitches  1 day
What about Cheerleading / Gymnastics?
Dr. Fred Mueller Director of the National Center for Catastrophic Sports Injury Research at the Univ. of North Carolina

“Cheerleading is out of control”

- Cheerleading injuries resulting from ER visits have increased almost 6 fold since 1980 to nearly 30,000 in 2008 according to the US Consumer Product Safety Commission
- The exact number of serious injuries is not known because there is no formal reporting system
- But for catastrophic injuries cheerleaders lead the stats
  - Over the 26 yrs from 1982 to 2008 they show disabilities caused by head or spine trauma are almost double for high school cheerleaders than for all other female sports combined. There were 73 catastrophic injuries including 2 deaths during this period

- Gymnastic was 2nd with 9 catastrophic injuries
Dr. Fred Mueller

“Cheerleading is out of control”

- There are approx. 3 million cheerleaders nationwide
- With 400,000 at the high school level
- In college, during 2005, 25% of the NCAA insurance medical expenses was spent on cheerleading injuries
- In comparison, FB with 10X the participants accounted for 57% of the money spent
What about Football?

Reportedly one in every three high school football players will be sidelined to injury.

In 2007, more than 920,000 athletes under the age of 18 were treated in emergency rooms, doctors' offices, and clinics for football-related injuries according to the U.S. Consumer Product Safety Commission.
How Can Football Injuries be Prevented?

• Have a pre-season health and wellness evaluation
• Perform proper warm-up and cool-down routines
• Consistently incorporate strength training and stretching
• Hydrate adequately to maintain health and minimize cramps
• Stay active during summer break to prepare for return to sports in the fall
• Wear properly fitted protective equipment, such as helmet, pads, and mouthguard
• Tackle with the head up and do not lead with the helmet
• Speak with a sports medicine professional or athletic trainer if you have any concerns about injuries or prevention strategies
On The Other Side of The “Coin” There Is Another Youth Sports Problem We Have To “Deal With!”
The Young Athlete’s Paradox

- The younger they are:
  - The more symptoms and pain they have
  - The less you find on P.E.
  - The more they want you to operate
  - The less pathology you find at surgery!
  - The less talented they probably are regardless of what their parents say!
A Council of Champions has been completed...Neal El Attrache and I are Co-Chairmen

The purpose of this council is to help promote, influence, fund, and stimulate the goals of the STOP program
Noteworthy are:

- John Smoltz, future baseball Hall of Famer and ESPN baseball analyst, along with:
  - Sam Bradford
  - Tom Brady
  - Jack Nicklaus
  - Brett Favre
  - Shaquille O’Neal
Youth Sports Injury Prevention Research

• Research is a big part of our prevention program

• A $300,000 in grant money is available on a competitive grant proposal agenda through the Orthopaedic Research and Education Foundation.
Sponsorship

• The **STOP** Injuries Campaign is of course the initiative of the AOSSM – a 501(c)(3) not for profit organization established in Illinois in 1972

• Sponsorship and financial commitment for this **STOP** campaign against youth injuries is crucial to success over the long haul! Our goal is 50 million dollars
Hopefully in the future Prevention will become more important than treatment especially with the epidemic rise in injuries in youth sports.

This is a national initiative by the AOSSM

www.stopsportsinjuries.com
Summary of the STOP Campaign

- Yes there is a tremendous need for prevention of injuries in youth sports
- Our country’s socio-economic structure in some ways is dependant on keeping these young athletes healthy!
- Education and research in prevention is the key to these GOALS!!
- Our motto is: Keep our kids out of the operating room and on the playing field!
- Please help –

Thanks...Jim Andrews
Major League Baseball has also developed a compressive PREVENTIVE youth baseball program entitled

Go to MLB link for further information:

http://m.mlb.com/pitchsmart/
Thank You for allowing me to present this information to you.

James R. Andrews M.D.
Thank You