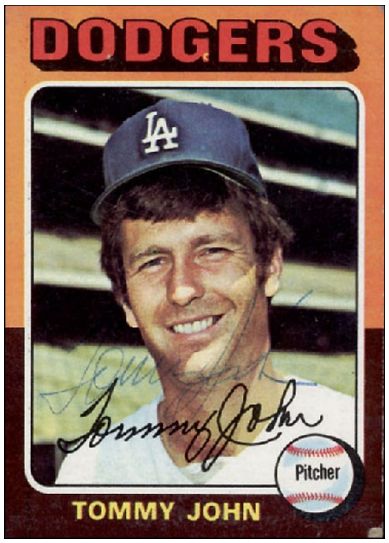
Research Roundup

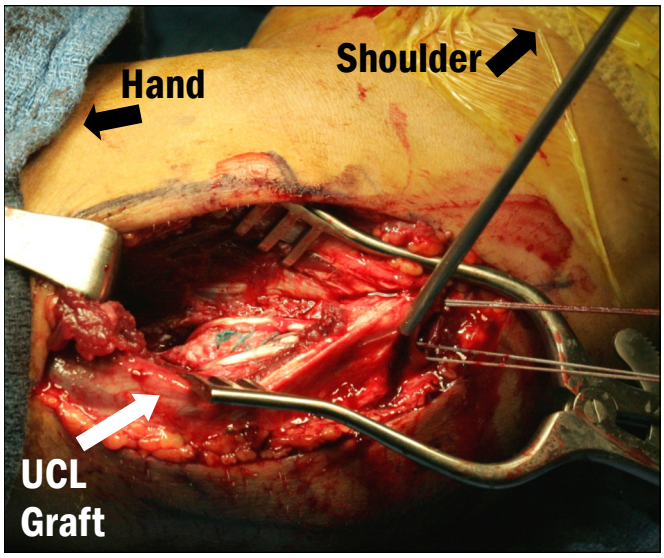
Tommy John Surgery Misconceptions

Before 1974, no one had ever heard of Tommy John surgery, the ulnar collateral ligament (UCL) reconstructive surgery named after the Los Angeles Dodgers' ace pitcher. Since then, though, the surgery has become a well known orthopaedic procedure and a potential career-saver for a limited number of individuals who may benefit from its ability to restore stability to the elbow. Even with more than three decades of surgery results, research reported to the American Orthopaedic Society for Sports Medicine (AOSSM) found a common misperception remains that Tommy John surgery improves athletic performance.



"Even though the number of pitches thrown has long been recognized to contribute to overuse injuries, nearly one-third of those surveyed did not believe that the number of pitches thrown is an injury risk," explained Steven Chudik, board certified orthopaedic surgeon, sports medicine physician with the Steven Chudik MD Shoulder and Knee Injury Clinic and founder of the Orthopaedic Surgery and Sports Medicine T Teaching and Research Foundation (OTRF). "Even more disturbing was the fact that one-quarter of the players and coaches surveyed actually thought a pitcher's performance could be enhanced by having Tommy John surgery," Dr. Chudik added.

During the spring of 2010, researchers surveyed 189 players, 15 coaches and 31 parents either through one-on-one interviews or by mailed questionnaires. Fifty-one percent of the high school athletes responding believed Tommy John surgery should be performed to improve performance even if there was no injury to the UCL. Thirty-one percent of coaches, 28 percent of players and 25 percent of parents did not relate pitch type with injury risk. Furthermore, 31 percent of coaches did not believe the number of pitches thrown was a risk factor for injury to the UCL. Additionally, many believed control and pitch velocity improve with surgery. Interestingly, respondents from all groups underestimated the extended rehabilitation time—as much as nine months to one year and sometimes longer—and they knew little about the surgical details of the procedure.



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According to Dr. Chudik, this research is important because of the growing number of shoulder and elbow injuries in young players from increased throwing, fatigue and overuse associated with starting at a younger age and single-sport specialization. "Countless research since the 70s studied pitch counts, pitch types, rest and their relationship to player injury. However, this is the first research that shows the necessity to address misconceptions about Tommy John surgery and how these throwing injuries can be prevented," explained Dr. Chudik.

Preliminary findings in our research (see page 6) also supports the need to educate players, families and coaches about the importance of pitch counts and resting the arm sufficiently between outings. "If pitchers can adhere to a strict schedule and pitch count, most of the overuse injuries would be eliminated," said Dr. Chudik. "Tommy John surgery isn't a means to an end for most athletes because of the recovery time and missed play, especially for amateur competitors. It can make sense is for a professional athlete, like Tommy John, who was able to extend his professional career; but even then, with every success story many of these career come backs are often limited," he added.

Superfoods or super caution?

Since 2005, the term superfood has been applied to any number of foods believed to be rich in antioxidants. Foods like berries, beans, nuts, vegetables, green tea and even dark chocolate have been dubbed good for you. However, are the titles deserved?

Researchers at Kansas State University (KSU) say additional studies need to be done before people are encouraged to increase their consumption of antioxidants because their research shows antioxidants may actually do more harm than good. "I think what a lot of people don't realize is that the antioxidant and pro-oxidant balance is really delicate," said Steven Copp, a Kansas State doctoral student and researcher on the KSU antioxidant study. "One of the things we've seen in our research is that you can't just give a larger dose of antioxidants and presume that there will be some sort of beneficial effect. In fact, you can actually make a problem worse," he added.

The research attempted to study ways to improve oxygen delivery to muscles during physical activity by using antioxidants. However, the KSU study found antioxidants actually can impair muscle function.

According to Copp, this discovery may be very important for those individuals with abnormalities in their circulatory systems as a result of aging or a disease such as chronic heart failure where

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antioxidants can impair oxygen delivery to skeletal muscles and increase fatigue during physical activity. The key is finding a balance because Copp adds, "some oxidants in our body such as hydrogen peroxide help increase blood flow."

Steven Chudik, board certified orthopaedic surgeon, sports medicine physician with the Steven Chudik MD Shoulder and Knee Injury Clinic and founder of the Orthopaedic Surgery and Sports Medicine Teaching and Research Foundation (OTRF) does not want athletes to stop eating nor drinking foods rich in antioxidants, nor overload on antioxidants with supplements. "Until more research is done, athletes and consumers alike should eat sensibly and in moderation following the Dietary Guidelines of the United States Department of Agriculture (USDA) and United States Department of Health and Human Services (HHS) presented in our March *Active Bones* issue.

Preschoolers lack outdoor play time with parents

In a study published in the April 2012 *Archives of Pediatrics & Adolescent Medicine*, researchers reported half of the 8,950 preschool population they surveyed do not spend time playing outside every day with a parent or guardian. This sample size is representative of approximately 4 million children. Guidelines from the National Association of Sport and Physical Education recommend children should get at least one hour of physical activity per day for long-term health benefits, like helping to ward off childhood obesity—a problem that has more than tripled in the past 30 years.

In interviews with the parents/guardians, less than 50 percent of moms and 25 percent of dads reported taking their child for a walk or playing outside with them at least once a day. According to Dr. Pooja Tandon, pediatrician at the University of Washington-Seattle and researcher on the study, the data makes sense because of the number of parents working outside the home. "It's not so easy to have

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outdoor playtime with your children every day even though outdoor play has been tied to a host of benefits for young kids who may not always be getting outdoor time in childcare or at preschool as some parents assume," Dr. Pooja explained.

Other findings in the study revealed 58 percent of children not in child care went outside daily and a child's odds of going outside daily were associated with the child's sex. Girls and non-Caucasian children were less likely to go outside with a parent, as were kids whose moms spent more time working outside the home. Also, children with regular playmates were more likely to go outside every day.

A major consideration not covered in the study was the type of activity the children got when they went outside. According to the Centers for Disease Control (CDC), children need at least 60 minutes of age-appropriate physical activity each day that includes aerobic activity and muscle and bone strengthening. To help meet this recommendation, with busy schedules and commitments, the CDC suggests parents/guardians consider the following:

- Set a positive example by leading an active lifestyle yourself.
- Make physical activity part of your family's daily routine by taking family walks or playing active games together.
- Give your children toys and games that encourage physical activity.
- Be positive about the physical activities in which your child participates and encourage them to be interested in new activities.
- Make physical activity fun. Fun activities can be anything your child enjoys, either structured or non-structured.
- Instead of watching television, encourage your child to find fun activities to do on their own or with friends and family, such as walking, playing chase or riding bikes.

"As parents we shape our children's attitudes and behaviors toward physical activity. Being a good role model and understanding these physical activity guidelines and the research findings is a good start, but as the parent we need to encourage our children to be more active. Their path to a healthy lifestyle begins with us," said Dr. Steven Chudik.