

## KICKOFF FRIDAY NIGHT: THE FIRST GAME



Varsity football games begin in Oklahoma in just a few days. Fall camps are long gone and maybe the summer heat will soon relent.

High school football is back!

With the nervousness and the intensity that comes with the first game each year we often hear multiple stories of what student-athletes chose to do prior to the first game in order to be best prepared, or so they thought, for the upcoming event. Sometimes what our athletes do is quite comical. Sometimes what they do can actually be medically inappropriate or even dangerous. So, if you're looking for an article on not washing socks for the year for good luck then this isn't the article for you. Although not washing socks for the year is actually done by athletes from time to time, the following are more medically specific examples of what some of our athletes have actually done over the years.

\*1-2 Energy Drinks less than 1 hour prior to kickoff

\*Large, pre-game dosages of Ibuprofen, Motrin, ect...

\*Eating a large pre-game meal or ingesting large quantities of water <1-2 hours prior to game time



When the games kickoff, stories like these are all too common. As a result, our athletes are often left wondering why the overall performance benefits they thought they would have weren't actually there.

**Volume 6, Issue 2, September 2014**

## Pre-Game Med's

Although news to some, athlete's utilization of common non-steroidal anti-inflammatory drugs (i.e. NSAID's) prior to an event, or even prior to a practice, is becoming an alarming habit. As med's like Ibuprofen, Motrin, and Aleve are easy to come by for a high school athlete, bottles of such are usually quite prevalent in most every varsity football locker room. Secondly, most athletes believe that pre-loading with "pain medications" prior to a game will reduce or limit the body's ability to sense pain; thus allowing the athlete to play harder, faster, and longer. In actuality, there can be a whole host of challenges that can be attributed to this pre-game dosage.



**NSAID's are not primarily designed for pain relief.** NSAID's are actually anti-inflammatory drugs designed to halt the body's entire inflammatory response to injury (i.e. tissue damage). So, even though the athlete will experience some analgesic effects of any current pains or problems, they are actually slowing down the body's ability to fully recover from whatever injuries they may currently have or may subsequently sustain during the event.

**NSAID's cause a mild blood thinning effect.**

The term "blood thinning" basically means that the body's ability for the blood to clot is mildly reduced when one is taking an NSAID. What most athletes don't realize is that blood clotting is a vital necessity to seal off damaged tissue in order to begin repairing it. What does this mean for an athlete in a collision sport where tissue trauma is inevitable?

continued on page 2

- Call us first.
- Accepting new patients and all insurance.

### Central States Orthopedics Physicians

R. Clio Robertson, MD  
Don L. Hawkins, MD  
David R. Hicks, MD  
James D. Cash, MD

David E. Nonweiler, MD  
Randall L. Hendricks, MD  
David K. Wong, MD  
Bryan J. Hawkins, MD

Thomas G. Craven, MD  
Jeffrey R. Morris, DO  
Ronald S. LaButti, DO  
Jeff A. Fox, MD

Kathleen M. Sisler, MD  
Troy A. Glaser, DO  
Bradley J. Lawson, MD  
Blake E. Shockley, MD

Debbie A. Gladd, DO  
Casey L. Smith, MD  
Brent C. Nossaman, DO

## Energy Drinks for Pre-Game

Most athletes are always interested in ways to get “amped up” before a game. But when energy drinks are used, the caffeine that comes with them can cause a whole host of problems.

### **Start of the 1st Quarter: Energy Drink 7, Water 0...**

Caffeine is a major diuretic, which means it empties the body of water. Athletes who use caffeine-based products for a pre-game “amp” have basically started dehydrating themselves before the game even starts.

### **3rd and 30 for the Heart...**

Caffeine also increases one’s blood pressure and heart rate. In other words, it does, “amp you up.” However, caffeine does this by making your heart work harder and faster. Come game time, this only serves to load the heart even more. As a result, consistent caffeine utilization has been shown to cause irregular heart rates and difficulty sleeping.

### **Under further review...**

As caffeine causes water to be removed from the blood stream (i.e. dehydration), and as it also increases blood pressure, the heart is not only working harder but is also pumping “thicker” blood. Subsequently, this increase in pressure irritates tissue that is pressure sensitive (i.e. nerves), and the decrease in the water content in the blood makes it harder to move oxygen to the brain. In summary, caffeine utilization in athletic competition, especially in hot and humid conditions, is directly linked to headaches, dizziness, difficulty concentrating, and decreased performance.

### **Post-Game Summary:**

Adequate hydration with water and electrolytes is always better for performance than any energy drink. For more information on adequate hydration, consider reviewing our August 2009 Newsletter on the topic of Heat and Hydration. This edition, as well as all former editions of Sports Medicine Monthly, are available at no charge on our website at [www.csosortho.com](http://www.csosortho.com).

Central States Orthopedics does not endorse any of the organizations or research groups whose information has been published herein. Furthermore, information in this publication is provided for informational purposes only and not as medical advice, or as a substitute for the advice provided by your physician or other healthcare professional, or for diagnosing or treating a health problem or disease. This publication is designed to provide you, the reader, with information only. It is your choice how to apply the information given herein, and not a directive from Central States Orthopedics. It is simply an informative resource for you, the reader.

For our entire newsletter disclaimer, visit the Sports Medicine Newsletter page on our website: <http://www.csosortho.com/sports-medicine-monthly.html>

Volume 6, Issue 2, September 2014

## Pre-Game Med's...cont.

As previously mentioned, the athlete who takes NSAID's prior to competition reduces their body's overall ability to begin the healing process from any trauma sustained during the event. Regardless of the type of trauma sustained, whether it be microtrauma (i.e. bruises, microfiber disruption, etc...) or macrotrauma (i.e. sprains, strains, concussions, etc...), the pre-game utilization of NSAID's by our athletes can hinder their own post-game recovery. In actuality, this is one key component of why no concussed patient should ever be using NSAID's for recovery.



### **NSAID's must be taken with food.**

Most athletes don't do this. Usually, NSAID's are taken after the pre-game warm-up and just before the start of the game. And, when consistent utilization of NSAID's occurs this close to an event, especially when taken without food, the risk for stomach ulcers, bleeding problems, and high blood pressure increases.

### **The body's focus during a game isn't the stomach.**

Most don't realize that the quantity of blood flow to the digestive system actually decreases during exercise. In short, the body decreases blood supply to the digestive system during activity so it can subsequently increase the nutrition (i.e. oxygen, sugar delivery, CO2 removal, etc...) provided to the skeletal muscles during the event. As a result of decreased blood flow to the digestive system, the process of digestion slows down and can even shut down completely. Therefore, when large quantities of food, drinks, and even med's, are ingested less than 1-2 hours prior to a game they usually set in the stomach, upset the stomach, and eventually come right back up the pipe during the game.



#### Main Clinic

6585 S. Yale Ave., Suite 200  
Tulsa, Oklahoma 74136  
918-481-2767

#### Bixby Clinic

12800 S. Memorial, Suite D  
Bixby, Oklahoma 74008  
918-394-2767

#### South Tulsa Clinic

9716 S. Riverside Dr., Suite 110  
Tulsa, Oklahoma 74137  
918-528-3300

#### Owasso Clinic

13616 E. 103rd St. N., Suite B  
Owasso, Oklahoma 74055  
918-272-4488

#### Downtown Clinic

802 S. Jackson, Suite 405  
Tulsa, Oklahoma 74127  
918-583-4400