

# Keeping you... Active

Spring 2008



WEST TENNESSEE

BONE  
&  
JOINT

Sports Medicine • Orthopedic Excellence

## Team sports physicals

Once again, West Tennessee Bone & Joint Clinic is offering free team physicals.

Coaches should contact Adam Kelley, Marketing Director at the clinic, to schedule a time for the whole team to come to the clinic to get its sports physicals.

"We provide the team physicals as a community service," says Kelley.

Contact Kelley at 731-661-9825 or toll-free at 888-661-9825 or email him: [akelley@wtbjc.com](mailto:akelley@wtbjc.com).

Keeping you...

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...is a quarterly newsletter from West Tennessee Bone & Joint Clinic.

The clinic's nine physicians specialize in sports medicine and orthopedic problems.

For more copies of the newsletter, contact Adam Kelley at the clinic at 731-661-9825.

## As warm weather approaches, take caution to avoid heat-related illness

Over the last few years, we've seen too many headlines of athletes dying of heat stroke while exercising or training in hot weather. We've heard of athletes getting sick after being in the heat too long.

Working out in the heat can be dangerous, even life threatening. The recent deaths of prominent athletes from heat-related illness has generated significant media coverage and fortunately a better awareness of this condition. However, heat-related illness and death are on the rise.

The best way to treat heat-related illnesses is to prevent them from happening in the first place. Coaches, athletes and even people getting some quick exercise on a hot day should be aware of the dangers of heat stroke and how to prevent heat-related illness from occurring.

### Signs of heat-related illness

Heat stroke is a life threatening illness characterized by an elevated core body temperature above 104 degrees associated with nervous system dysfunction. This includes nausea, vomiting, dizziness, fatigue, seizures and unconsciousness.

Heat cramps, which can be an early sign of heat stroke, often mean the body is dehydrated and needs fluid. Heat stroke carries a high death rate if diagnosis and treatment are delayed.

Heat stroke is a condition where the heat generated by the body overloads the body's ability to dissipate this heat. The body temperature rises, and a point is reached where the internal functions of the body shut down. During exercise, excessive sweating (an attempt to cool the body) and inadequate fluid intake decrease blood

By David Pearce, M.D.

volume. Blood circulation to the skin is the primary mode of cooling, and when blood volume is reduced, so is the ability to dissipate heat.

### Diagnosis and Treatment

Diagnosis of heat-related illness starts with a heightened awareness of when the temperature or heat index climb above 90 degrees Fahrenheit. A core body temperature greater than 104 degrees characterizes heat stroke. The brain is extremely sensitive to temperature, and confusion is one of the first signs of heat stroke. Confusion can be associated with dizziness and can progress to delirium, unconsciousness and coma.

Treatment starts with removing the athlete from the hot environment and beginning cooling measures. This consists of removing clothing and equipment, fanning and applying cold/ice packs to the neck, groin and arm pits. If the athlete is able, he should drink fluids with sodium, such as sports drinks. If symptoms persist, the athlete should be transported to an emergency department as soon as possible.

### Prevention

Prevention is the most effective treatment for heat-related illnesses.

■ At the beginning of a



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# Use caution to avoid heat stroke

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strenuous exercise program or after traveling to a warmer climate, the intensity and duration of exercise should be limited initially and then gradually increased over 10-14 days to allow time for acclimatization. When this period of time is not available, shorten the length of practice sessions and competition.

■ Check environmental conditions before practice and during practice and adjust schedules accordingly. Avoid practice times during the hottest part of the day, typically 10 a.m. to five p.m. Caution should be used and practice intensity decreased or adjusted when the temperature or heat index rises above 90 degrees.

■ Rest breaks should be incorporated into practice during this time and should be more frequent as temperature rises. Rest breaks should be used for rehydration and removing participants from radiant heat sources, such as direct sunlight. The use of the Wet Bulb Globe Temperature, which is an index of climate-related heat stress, can be used as a guide for exercising in the heat.

■ Hydration should begin before the exercise period. Each athlete should consume 500 milliliter of fluid two hours before exercise to ensure hydration, and allow time for excretion of excess ingested fluid. Another 200 to 300 milliliters should be consumed 30 minutes before exercise. The recommended fluid intake during exercise is 200 to 300 milliliters of cold tap water or a flavored salted

beverage every 20 minutes.

■ An effective method of monitoring fluid status is to weigh athletes before and after practice (\*particularly during two-a-day practices before football season) to estimate the amount of body water lost during exercise. This can be used to ensure return to near pre-practice weight before next practice. An athlete who loses more than two to three percent of body weight during exercise is not receiving adequate hydration. After exercise, athletes should consume 500 milliliters of fluid for every pound lost.

■ The type of fluid replacement is dependent on the duration of the event. Plain water is adequate for events lasting less than one hour. However, for events longer than one hour, the replacement fluid should contain carbohydrates, sodium and potassium, which are standard components of commercial sports drinks.

■ Athletes and others who will be working out should avoid caffeine, particularly in hot weather. Soft drinks, tea and energy drinks typically contain caffeine or caffeine-type products. These increase heart rate and act as a diuretic, which leads to or worsens dehydration.

■ Clothing should be light-colored and limited to one layer of absorbent material to ease evaporation of sweat. Dry garments should replace sweat-saturated garments if possible during competition.

*Remember, the key is prevention, and this always begins and ends with hydration.*

## Heat stroke

### Q & A

**Q** Between 1995 and 2001 how many football players (high school, college and pros combined) died from heat stroke?

**A** Across the United States, 21 football players have died from heat stroke — an average of three athletes per year.

**Q** How do you prevent heat-related deaths in sports??

**A** Hydration is a key to prevention: Players should be allowed to drink water at any time during their sporting activity, as well as taking frequent cooling-off breaks.

**Q** What are the signs of heat-related illness?

**A** Signs include cool, moist, pale skin (the skin may be red right after physical activity); headache; dizziness; weakness or exhaustion; and nausea. The skin may not feel hot. More serious symptoms include vomiting, decreased alertness level or complete loss of consciousness, and high body temperature (sometimes as high as 105°F). The skin still may be moist or the victim may stop sweating and the skin may be red, hot and dry. Another serious symptom is a rapid, weak pulse and/or rapid, shallow breathing.

*Answered by Chris Hoffman, PT, CertMDT, MPT, ATC*



Volunteers clean up fallen trees and debris around the clinic.

## Clinic carries on despite tornado

**W**est Tennessee Bone & Joint didn't miss a day of seeing patients — despite the tornado on Tuesday, February 5, that tore through north Jackson. The tornado caused some roof and window damage to the clinic and cut off electric power.

Undaunted, the clinic borrowed a generator from West Tennessee Healthcare. The staff began clean up and doctors were seeing post-operative patients by the next afternoon. With the generator, the clinic continued to see patients on Thursday, and by Friday, electricity and normal operations were restored.

"We are very grateful for the understanding from our patients and the support of our community," says Donna Klutts, the clinic's practice administrator.

# Brain concussions common in contact sports

A concussion is one of the more common injuries suffered by high school athletes, particularly in contact sports like football.

A concussion is a brain injury produced by direct or indirect head trauma with symptoms that include amnesia, memory loss, difficulty concentrating, headache, sensitivity to light and dizziness (vertigo.) Delayed symptoms can include sleep disturbance, depression, fatigue, and feeling slowed down as if in a fog.

Because of the severity of a possible concussion, physicians will "over treat" head injuries and keep athletes out of the game if they are "not right," appear to have memory loss or have a headache or nausea while running.

Athletes who sustain one concussion have a two- to four-time greater risk of sustaining another concussion injury. Though rare, "second impact syndrome" can result from a second closed head injury as a result of a second concussion before the original injury resolves. This condi-

By David Pearce, M.D.

tion is marked by severe brain swelling, increased intracranial pressure and cognitive impairment.

The brain, encased by the skull, does not tolerate or allow for swelling. Severe neurologic impairment or even death can occur with this syndrome, which is more common among children and young adults.

A concussion is serious; athletes who may have sustained a concussion should not be allowed to return to play until they are symptom free.

The U.S. Consumer Product Safety Commission (CPSC) estimated that about

358,000 concussion injuries (relating to all consumer products) occurred in 2001. This does not include concussions suffered in car accidents, boating accidents and other ways not under CPSC jurisdiction.

Of those injuries, about 28,000 were related to football in all age categories. About 18,700 were football-related and suffered by people 15 to 24 years old. About 17,000 of those were suffered by young people between 15 to 19 years old.

If patients continue to report symptoms related to concussions, such as headaches and dizziness, athletes should not be allowed to return to play. Severity is based on loss of consciousness or the presence of

neurologic deficits. If these are present or loss of consciousness has occurred, the patient is sent to the emergency department for more extensive evaluations.

The universal consensus is that concussions are serious injuries, and athletes must be evaluated by experienced physicians before returning to play.



## Physicians receive board certification in sports medicine

Dr. Harold Antwine III, Dr. David Pearce and Dr. Jason Hutchison have received their board certification in sports medicine from the American Board of Orthopaedic Surgeons. They also are board certified in orthopedic surgery.

Sports medicine specializes in the prevention, diagnosis and treatment of injuries resulting from athletic activities. Certification by the American Board of Orthopaedic Surgery means that the orthopedic surgeon has met the specified educational, evaluation, and examination requirements of the Board.

Dr. Antwine, who has been at West Tennessee Bone & Joint Clinic for nearly 10 years, is a graduate of the Tulane University School of Medicine in New

Orleans, Louisiana. He completed his internship and residency programs in orthopedic surgery at Greenville Memorial Hospital and Shriners' Hospital for Crippled Children in Greenville, S.C.

Dr. Pearce is a graduate of Georgetown University School of Medicine and completed his orthopedic residency at the Medical College of Virginia in Richmond. He received his fellowship in sports medicine at Thomas Jefferson University in Philadelphia. He has worked as an orthopedic consultant with the Philadelphia Phillies. He joined the clinic in 2004.

Dr. Hutchison earned his medical degree at the University of Tennessee



From left, Dr. David Pearce, Dr. Harold Antwine III and Dr. Jason Hutchison

School of Medicine. His internship in surgery was at Methodist Hospital in Memphis. His four-year residency in orthopedic surgery was at the Campbell Clinic in Memphis. He joined the Bone & Joint Clinic in 2005.

# Surgery, rehab rescue Lane athlete's dream

For most college seniors, their final year is full of dreams for the future. For Lane College's Shannon Kegley, her dream is to try out for the Women's National Basketball Association.

Shannon, however, injured her right leg this year. Instead of forgetting her dream, though, she is merely postponing it for a year, thanks to the medical care she received at West Tennessee Bone & Joint Clinic.

*Shannon Kegley hopes to try out for the Women's National Basketball Association.*



In the opening scrimmage of the season, Shannon made a breakaway lay-up, only to be caught by an opponent who caused her to come down wrong on her right leg.

"I thought I had either broken or dislocated my leg," says Shannon, who transferred to Lane from Glendale Community College in California. "Problem was, I had injured the same knee in 2005 and just had never gotten it checked. I had issues with it ever since. This time I knew I had really messed it up."

Her trainer put her knee in a brace

and sent her to the emergency room. "I couldn't straighten my leg, it hurt, and I felt a pop in my knee," says Shannon.

With a swollen and painful knee, Shannon went to see Dr. Michael Cobb at West Tennessee Bone & Joint Clinic the next morning. An MRI of the knee determined that Shannon had completely torn her anterior cruciate ligament (ACL) as well as partially tearing the cartilage in her meniscus.

After she spent two weeks in daily physical therapy to reduce the swelling and regain range of motion in the knee, Dr. Cobb did surgery to repair her knee.

"Dr. Cobb and his assistant, Shane, were really sweet to me," says Shannon. "My family in California was a long way from Jackson. Dr. Cobb has stayed in contact with my mom throughout this entire process, keeping her up-to-date on my progress and prognosis. That has really meant a lot to me and my mom."

Surgery went well and Shannon resumed physical therapy two days later. She has completed the first half of the six months of physical therapy she will need to rehab her knee. She has therapy three days a week at Bone & Joint and is doing daily exercises on her own. Her recovery is ahead of schedule.

"Everything is going great, I almost have full range of motion back," says Shannon. "I can bend my knee to 136 degrees. I will definitely be back to playing basketball."

The senior point guard and shooting guard at Lane has been given back her final year of eligibility. She will return next year to play for the Lady Dragons and will be able try out for the WNBA. "I feel very blessed by Dr. Cobb and the folks at Bone & Joint," says Shannon. "They have really pushed me to get better and be stronger for it."



Sports Medicine • Orthopedic Excellence

## Keeping You Active

The physicians at West Tennessee Bone & Joint Clinic, P.C., specialize in comprehensive orthopedic care. They diagnose and treat diseases and injuries of the bone, muscles, tendons, nerves and ligaments in adults and children. They are Board Certified in Orthopedic Surgery.



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