

Keeping you... Active

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Sports Medicine • Orthopedic Excellence



WEST TENNESSEE

BONE
&
JOINT

Shin Splints: A Guide to Diagnosis and Treatment

With basketball season upon us, many high school and college players have the potential to develop a condition known as "shin splints" or medial tibial stress syndrome.

Another name used to describe this condition is soleus syndrome, after the muscle in the lower leg.

The pain is usually localized on the inside portion of the lower leg below the knee and can travel towards the inside of the ankle.

The phrase "shin splints" was originally used as a nonspecific term referring to overuse syndromes of the lower leg. Other injuries of the lower leg that can mimic shin splints are stress fractures, which can occur from overuse of both the tibia and fibula in the lower leg.

Exercise-induced compartment syndrome

is another condition a treating physician needs to be aware of.

This is an increased pressure within a confined space in the lower leg, which can cause discomfort and sometimes result in surgical intervention.

Most cases of shin splints occur in running-type activities, with an incidence ranging from between 4 and 13 percent.

The primary cause of shin splints is related to stress at the periosteum of the tibia, which is a film-like covering overlying the bone and is instrumental in nutrition as well as bone remodeling in stress or acute fractures. In the early stages, the periosteum may reveal inflammatory changes, which can be treated with simple anti-inflammatory medications, as well as rest. In longer-term cases or chronic cases, the periosteum may be separated from the bone.

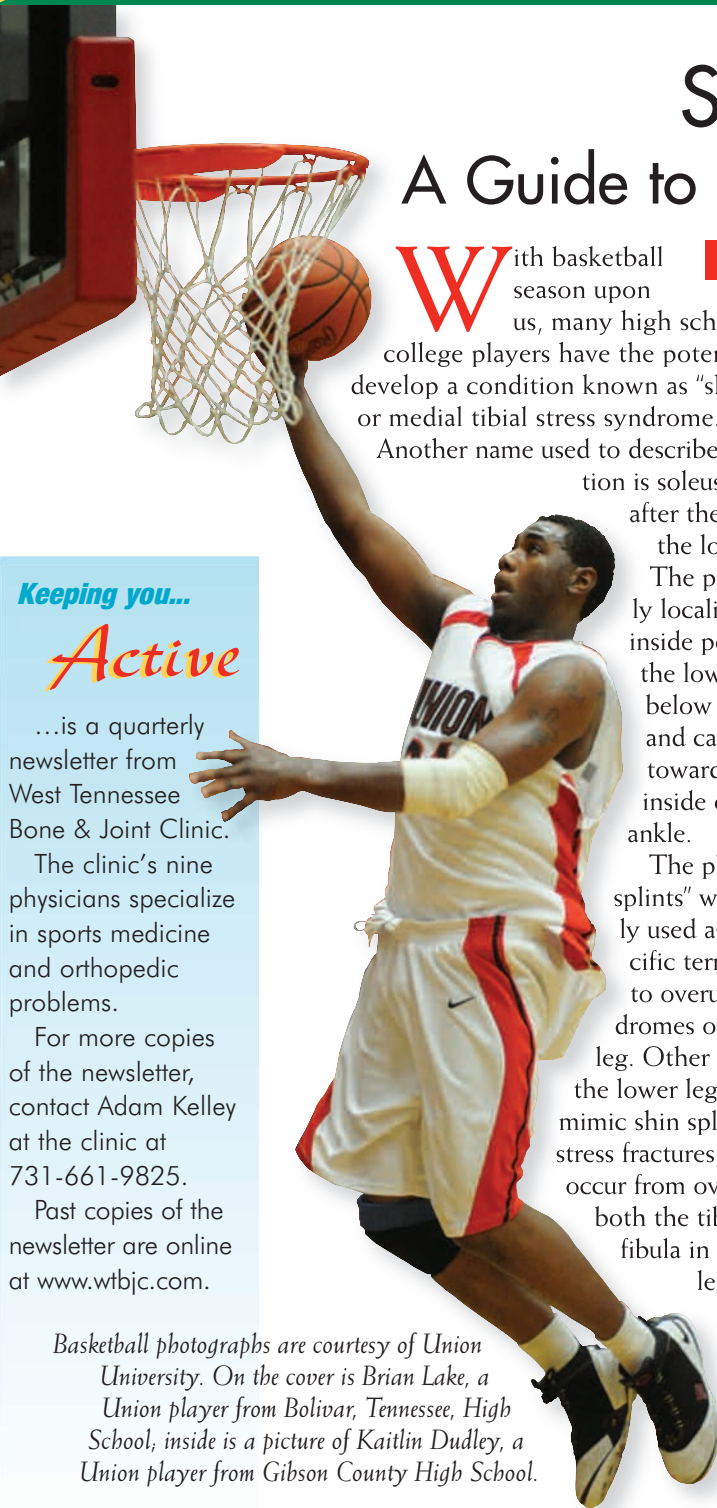
The muscles involved in this condition are the soleus and flexor muscles of the foot and toes. Diagnosis also can be confirmed by studies that include plain x-rays, bone scans and MRI scans.

Runners who have excessively pronated or flat feet have been shown to be predisposed to the development of these overuse syndromes.

Rest is the mainstay of treatment for shin splints. Most patients can be treated successfully by refraining from the offending activity for several days to two weeks. Depending on the degree of pain, non-impact exercise, such as swimming or biking, may be permitted to maintain stamina and endurance.

The rule of thumb, "let pain be your guide," is a phrase frequently used with these patients. Non-steroidal anti-inflammatory medications are used for one to two weeks to decrease pain and inflammation. Cryotherapy or ice applied to the affected area two to three times per day also may diminish inflammation. Heel cord stretching exercises are

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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.

Past copies of the newsletter are online at www.wtbjc.com.

Basketball photographs are courtesy of Union University. On the cover is Brian Lake, a Union player from Bolivar, Tennessee, High School; inside is a picture of Kaitlin Dudley, a Union player from Gibson County High School.

Shin Splints Q & A

Q What are shin splints?

A Shin splints is the name given to pain located over the front of the lower leg that is the result of an overload on the shinbone and the connective tissue that attaches muscle to the bone. Symptoms include tenderness over the inside of the shinbone, mild-swelling and lower leg pain, which goes away after a period of rest, but returns when activity starts again.

Q What causes shin splints?

A They may be caused by a sudden increase in distance or intensity of a workout schedule. A tendency to overpronate, or roll the foot excessively inward onto the arch, may put one at risk for shin splints, and a tight Achilles tendon or weak ankle muscles often are implicated in their development.

Q What is the treatment for shin splints?

A Treatment involves resting from the activities that cause pain. Modifying your exercise routine to include low impact exercises, such as swimming, bicycling or pool running, will help maintain cardiovascular fitness.

To reduce pain and inflammation, ice should be applied for up to 20 minutes three times a day, and anti-inflammatory medications, such as Ibuprofen or Aleve can be taken.

Treatment also involves wearing proper shoes suited for your foot type. A professional gait analysis may help determine if you overpronate, which may require special footwear or orthotics.

*Information provided
by Cheryl Murray, PT*

Many athletes get shin splints

... Continued, from front



recommended in patients as well. Patients who have flat feet or excessive foot pronation can use arch supports. After the symptoms have resolved, a graduated return to running is permitted over a three to six-week period.

In this day and age with many athletes participating in multiple sports, overuse injuries, such as shin splints, are common presentations at the orthopedic surgeon's office. With proper evaluation, diagnosis and treatment, these athletes can be back on the track, court or field in a relatively short period of time.

Physical Therapy key to patients' recovery

The Physical Therapy Department at West Tennessee Bone & Joint Clinic is staffed with Licensed Physical Therapists, Physical Therapy Assistants and an Occupational Therapist, which is the newest service offered in the rehabilitation department.

The Physical Therapy Department has more than 4,000 square feet and is equipped with a full range of exercise equipment and treatment modalities.

"Our goal is to provide superior rehabilitation in a positive, motivating environment," says Tom Johnson, a Physical Therapist and Director of the Department.

Pictured standing, from left, are Shea Cooper, Physical Therapist; Marty Grooms, Occupational Therapist; Cheryl Murray, Physical Therapist; Luchita Blankenship, Physical Therapy Assistant; Tanya Forrest, Tech; Tom Johnson, Physical Therapist; Christina Fesmire, Physical Therapy Assistant; and seated in middle, Rita Wright, Office Manager; and Heather Rogers, Tech.



Shoulder arthritis occurs as cartilage thins

What is shoulder arthritis?

Arthritis of the shoulder is a condition that affects the ball (humeral head) and socket (glenoid) joint in the upper arm.

These bones are normally covered with a thick durable cartilage called articular cartilage that is very slick and minimizes the friction between bones allowing for the normally smooth motion of the shoulder. Arthritis occurs as articular cartilage becomes thin.

What types of shoulder arthritis exist?

The primary types of arthritis affecting the shoulder are post-traumatic arthritis, degenerative osteoarthritis and inflammatory arthritis. Post-traumatic arthritis is due to previous injury, such as shoulder dislocation or fracture. Degenerative arthritis occurs over years as cartilage degenerates. Inflammatory arthritis is an auto-immune disease in which the body's own cells attack the cartilage and ligaments.

What types of changes happen on my x-rays?

The cartilage becomes thin between the ball and socket, sometimes leading to bone-on-bone contact. Special x-rays will allow your surgeon to clearly identify arthritis. Spurs may build up around the shoulder.

What problems do patients with shoulder arthritis have?

As shoulder cartilage becomes thin, the smooth ball-socket motion is lost. Painful grinding may be noticed with motion. The shoulder can become stiff, leading to pain when reaching above the shoulder level or problems with reaching into the back pocket or putting on a belt. Some

Questions answered By Adam Smith, M.D.

patients have severe pain at night that wakes them up, or pain so severe that they can't get to sleep.

What options do I have with shoulder arthritis?

Conservative regimens including anti-inflammatory medications and injections of cortisone can be extremely helpful. Arthroscopy of the shoulder may be helpful in a limited number of patients to remove debris and spurs from the joint. For those who do not respond well to these options, replacement of the shoulder is helpful, allowing a return to a pain-free lifestyle.

What is shoulder replacement?

Replacement of the shoulder is performed by an orthopedic surgeon for patients who have continued pain and failure of a trial of non-operative treatments. An incision is made in the front of the shoulder, and the muscles are spread, allowing entry to the shoulder. Scar tissue and spurs that limit motion are removed. The arthritic ball and socket are replaced with a smooth metal ball and plastic socket.

What is the recovery time for shoulder replacement?

Patients usually stay one or two nights in the hospital to allow for adequate recovery. The shoulder remains in a sling for about four to six weeks and motion therapy is begun. In general, most patients have maximum recovery and are allowed to return to activities like golf at around six months after surgery.



Questions about an athlete's injury?

If you have a question or concern about an injury or care for an athlete, go to our website at www.wtbjc.com, click on the Sports Medicine tab and submit your question.

One of our physicians or physical therapists will respond promptly.

Physicians chosen to participate in anesthesia research study

West Tennessee Bone & Joint Clinic physicians were selected to participate in an investigational Phase III drug research study to see if the drug can deliver post-surgical pain management over an extended period of time.

West Tennessee Bone & Joint Clinic physicians will offer this study to patients who are having a specific type of knee surgery performed at Jackson-Madison County General Hospital. The hospital is one of 25 major medical facilities nationwide for the Phase III study of this new form of local analgesic.

Dr. Tim Hutchison of Professional Anesthesia Associates will administer the pharmaceutical and monitor the research.

Injured football player eager to play again next season

As Freshman Will Wright limped off the football practice field last summer, he didn't realize that he would be on the injured list for the rest of the football season.

"It was painful," said the University School of Jackson student, "but I didn't know it was that severe."

Will, the son of Kevin and Sally Wright, had a torn ACL (anterior cruciate ligament) in his right knee. "I was running, made a cut and then someone stepped on my foot," he said. "I heard a pop."

The ACL, one of four strong ligaments that connect the bones in the knee joint, helps stabilize the knee.

Will's journey to recovery started later that day with a visit with Dr. Jason Hutchison at West Tennessee Bone & Joint Clinic. Dr. Hutchison, who was on call that day, thought Will had a torn ACL and ordered an MRI of the knee for the next week.

As he looked over the results of the MRI test, Dr. Harold Antwine confirmed the ACL tear. Will would need surgery to repair it.

Will did pre-operative therapy in the physical therapy department at West Tennessee Bone & Joint Clinic to prepare for his surgery at the outpatient Physicians Surgery Center on September 11.

He returned to physical therapy twice a

week as soon as he could after the surgery.

"Dr. Antwine, (Physical Therapist) Tom Johnson and the other physical therapists have been great," Will says.

"They've worked with me and done all of the things necessary to get my knee better."

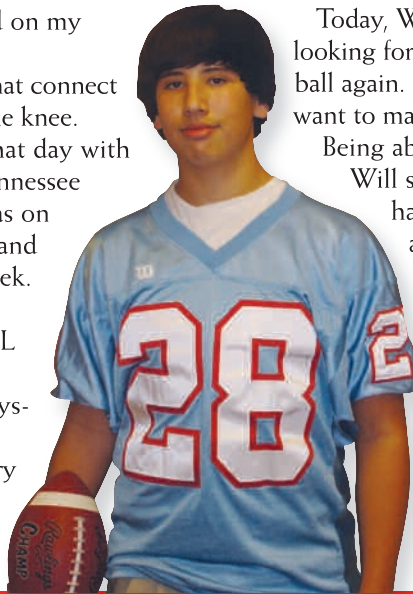
He was released from therapy December 11 and continues to strengthen his knee with exercises at home.

Today, Will is walking well and running a little. He's looking forward to this spring when he can play football again. "I won't play baseball this year, because I want to make sure my knee is fully recovered," he adds.

Being able to play football is important to him, Will says. The injury shocked him because he had been healthy until the injury. "I appreciate Dr. Antwine and the therapists at West Tennessee Bone & Joint Clinic."

"I could not have been more pleased with the excellent care Will received from the moment he was first seen and throughout the whole process," said his mom, Sally.

"As a mother, you hurt when your child hurts, but every aspect of the care we received has been first class all the way and has helped that hurt tremendously."



Celebrating 35 years of providing quality patient care



Pictured, left to right, are Dr. John Everett, Dr. Kelly Pucek, Dr. Michael Cobb, Dr. David Johnson, Dr. Lowell Stonecipher, Dr. David Pearce, Practice Administrator Donna Klutts, Dr. Adam Smith, Dr. Harold Antwine III and Dr. Jason Hutchison.



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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