

# Did you know?

In addition to ankle sprains, NOS physicians also have expertise in managing other foot and ankle conditions such as **Achilles tendonopathy, plantar fasciitis and stress fractures.**

Starting in the coming weeks, we will be offering musculoskeletal ultrasound



**NASHVILLE**  
Orthopaedic Specialists, PC

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# Nashville Orthopaedic Specialists

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## What Every Clinician Should Know About Ankle Sprains

Written by F. Clarke Holmes, M.D.

An ankle sprain is one of the most common injuries seen by both primary care physicians and orthopedic specialists. Due to the common nature of these and resulting comfort level of the clinicians, physicians can be susceptible to underemphasizing a comprehensive treatment plan for the patient. The majority of these sprains involve the lateral side, specifically resulting in partial tearing of the anterior talofibular and/or calcaneofibular ligaments. The biggest mistake often made is failure to recommend a rehabilitation program. Pain and swelling from these sprains often subside with time and basic treatment strategies; however, if rehabilitation is not undertaken, then the resulting ankle may remain unstable and will then be highly susceptible to reinjury. Whether your patient is a competitive athlete or simply someone hoping to comfortably perform everyday activities, chronic ankle instability can be disabling.



Instability can make it difficult for the athlete to change directions, rapidly accelerate or decelerate, and can also make it challenging for the everyday person to navigate stairs and walk on uneven surfaces. Thus, the patient with the ankle sprain will greatly benefit from a rehabilitation

program with detailed instruction regarding range of motion, strengthening, proprioception and functional activities.

In addition, the patient who appears to have an isolated sprain may have a concurrent bony injury. Fractures of the anterior process of the calcaneus, lateral process of the talus or osteochondral defects of the talus can be subtle and

must be considered in the patient who is failing to improve in a timely manner. Clinicians must carefully evaluate radiographs to uncover these injuries. Ideally, these occult bony injuries should be diagnosed and treated in the early stages of the injury period.

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## NOS Physicians

J. MICHAEL KIOSCHOS, M.D.  
*fellowship trained in shoulder and elbow surgery*

J. THOMAS McCLURE, M.D.  
*fellowship trained in knee and hip joint reconstruction*

F. CLARKE HOLMES, M.D.  
*fellowship trained in sports medicine*

## Did you know?

Upon request, patients with urgent problems can be seen on a same-day or next-day basis.

NOS offers ASTYM to its patients through its physical therapy department.

### ON OUR WEBSITE:

Do you want to know more about our physicians? Read about their areas of expertise and accomplishments at [www.orthonashville.com](http://www.orthonashville.com)

On our website you can also: **Get** directions to the clinic, **Request** an appointment, **Email** our physicians and **Learn** more about our physical therapy department



#### PEARLS REGARDING RADIOGRAPHIC STUDIES

1) Know your Ottawa foot and ankle rules: basically, these state that if a patient can not take four steps or has bony tenderness over either malleoli, the 5th metatarsal or navicular, then x-rays should be performed

2) MRIs are still NOT considered the standard of care for most acute ankle injuries. MRIs are more appropriately ordered if the clinician is searching for an occult injury that cannot be diagnosed by clinical exam or standard radiographs, or if the patient is not healing from the sprain in a typical amount of time (4-8 weeks, on the average).

*Dr. Holmes focuses on the care of competitive and recreational athletes as well as nonathletes, with an emphasis on nonsurgical treatments.*



#### PEARLS REGARDING IMMOBILIZATION

There are many immobilization techniques for ankle sprains these days. These include tall pneumatic/boot walkers, lace-up/velcro braces and even custom splinting or casting. The type and duration of immobilization must be individualized. The severity of the injury, acuity of the injury, degree of pain and disability and the patient's occupation or sport all must factor into the decision.

If you are the first clinician to see the patient after an injury and are unsure how to treat the patient, then immobilize the ankle in any way readily available, place the patient on crutches in a non-weight bearing fashion, and refer the patient to the appropriate specialist who can evaluate the patient in a timely manner.

## ASK THE EXPERT

### Foot and Ankle Issues

What are PRP injections?

PRP stands for platelet-rich plasma. Blood is drawn from the patient, usually from a vein in the arm. This blood is then spun in a centrifuge, separating the red blood cells from the plasma. The plasma contains the platelets which contain a multitude of growth factors involved in healing. This plasma is then injected into the patient's area of injury. These injections are a very safe alternative to corticosteroid injections, as they utilize the patient's own natural healing factors. Instead of simply reducing inflammation like steroid injections, they can actually stimulate the recovery of degenerative and torn tissues.

What foot and ankle conditions may benefit from PRP?

Lateral ankle sprains, Achilles tendonopathy and plantar fasciitis are a few of the conditions that can benefit from PRP. PRP may be recommended if a patient has not received satisfactory results from more traditional treatment options such a rest, physical therapy, medications, bracing and orthotics.

What is ASTYM®?

ASTYM is an innovative physical therapy technique, utilizing small instruments to perform a restorative form of rehabilitation. Similar to PRP, this technique is designed to stimulate a healing response. ASTYM is often combined with typical therapeutic exercises, and 4-8 treatments can augment the recovery process. Chronic tendonopathies and areas with scar tissue are the most likely to benefit from ASTYM. The physical therapy department at NOS is the only clinic in Nashville currently performing ASTYM.

## Ankle Rehabilitation

Written by Megan Mosher, PT

Balance, coordination, and proprioception training play a pivotal role in the treatment and prevention of ankle injuries. There are many techniques that can be easily incorporated into a daily routine to improve ankle stability and therefore reduce the risk of future injury. Proprioception refers to input from the nervous system about the relative position of one part of the body to another, and like other motor activities, can be enhanced.

A good starting point to challenge balance and improve ankle stability is to stand on one foot next to a stationary surface for 15-30 seconds. Once comfortable with this, upper extremity assistance can be removed for greater difficulty.

Other progressions include increasing the stance time, closing the eyes, or performing upper extremity activities such as bicep curls simultaneously. Since functional training is imperative for ankle rehabilitation, it is beneficial to incorporate balance training into normal daily activities. A standing activity, such as washing dishes or applying lotion, can become a stabilization training technique by performing it on one foot or with eyes closed. The BOSU is a tool that can be used to challenge balance and improve dynamic stabilization.

To the right are three techniques that can be performed on the BOSU to increase core stability, and therefore, improve balance, proprioception, and coordination.



*Megan is a staff physical therapist at NOS and is uniquely qualified to perform ASTYM on patients. ASTYM is a technique utilized to aid in the healing of certain soft tissue conditions.*

## EXERCISES

### 1. BASIC STANCE

Stand with both feet on the dome, placing them on either side of the bull's eye. By simply standing, you'll feel your feet moving and your torso contracting in order to find your balance. Add difficulty by raising the arms overhead or performing with eyes closed.



### 2. WEIGHT SHIFT

From Basic Stance, shift weight from foot to foot using arms or a stationary object for balance. Keep shoulders and hips straight. To make it more difficult, march on top. Repeat for 30-60 seconds, then rest and repeat 2-3 times.



### 3. SINGLE LEG STANCE

When comfortable with standing on the BOSU, stand next to a stationary surface and lift one foot from BOSU, so you are balancing on one foot. Hold this position 15-60 seconds, then progress to performing this activity without upper extremity assistance. Standing on the BOSU is much more difficult than standing on a flat surface, so a prerequisite would be to be comfortable with basic stance on the BOSU. Like the other techniques, one can increase the difficulty by performing with eyes closed or while also performing bicep curls or another upper extremity activity.

