

What You Need to Know About Ankle Health



BY BRYAN MONIER, MD

The ankle is one of the lesser talked about and researched joints in the body. More attention, research dollars and press are devoted to the knees, hips and hands but it is one of the most common injured body parts and injury or dysfunction can lead to significant disability. Every day in the U.S. 25,000 people sprain their ankle and each year over 1 million people visit the emergency department for an ankle injury.

During standing, walking and running the foot and ankle provide key support, balance and shock absorption that allows us to adjust to varying types of terrain. The ankle itself is made of three bones (the tibia, fibula and talus) that primarily enable up and down movement (dorsiflexion and plantarflexion) but it is also intimately related in function to the other 28 bones and over 30 joints that are present in the foot that allow for a wide range of motion and movement.

The ankle joint, like most joints in the body, is covered with articular cartilage, which is a smooth surface that allows bones to glide without friction over each other. The joint is also surrounded by a thin lining called the synovium which produces fluid that fills the joint to allow for its smooth motion. Joints are held together by strong bands of tissue called ligaments which connect the bones together. Muscles are attached to bones by tendons and they also help support joints and provide the strength to make joints move.

Common injuries to the ankle include sprains, fractures, tendon tears and cartilage injuries. Over time these can lead to dysfunction within the ankle and the development of ankle arthritis. Osteoarthritis is the wearing away of the smooth cartilage layer of the joint. The cartilage becomes frayed and rough which decreases the space in the joint and leads to bone rubbing against bone. This can result in the formation of osteophytes (bone spurs) and deformity of a joint. These changes happen slowly over time as does the pain and stiffness that are a result.

Treatment of ankle arthritis initially centers around non-surgical care with the use of braces, anti-inflammatory medications, life-

style modifications (weight loss, low impact exercise) and physical therapy. Surgery options can initially include debridement (cleaning out bone spurs) and progress on to fusion of the joint (arthrodesis) or total ankle replacement (arthroplasty).

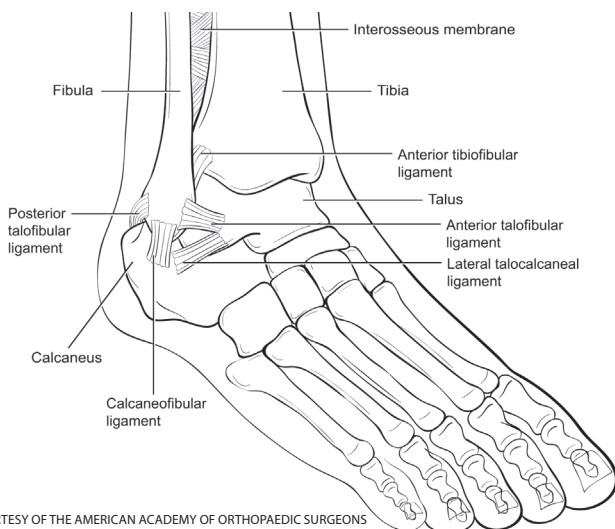
Maintaining good ankle health can help prevent injury.

Here are five tips to focus on:

- 1. STRETCHING:** Focus on your calves, hamstrings and Achilles tendon. This will allow the muscles to work properly and allow more motion and less pressure through your ankles and feet. Try to do five minutes of stretching each morning and evening.
- 2. WEIGHT LOSS:** Each step puts 5-7 times your body weight through your feet and ankles. Maintaining a healthy weight will minimize the strain and stress that your joints see.
- 3. WEIGHT BEARING ACTIVITIES:** Walking, running, stair climbing, dancing, etc. are all ways to strengthen the muscles in your lower legs which will help stimulate growth and strength of the bones in your skeleton to prevent breaks or injuries. 30 minutes of exercise three times a week is a good place to start.
- 4. STOP SMOKING:** Smoking has bad effects on all of the organs and tissues in your body. Nicotine found in cigarettes causes the blood vessels to constrict which will diminish the delivery of oxygen to the tissues in your feet and toes which can make healing any type of injury more difficult.
- 5. COMFORTABLE SHOES:** any shoe that constricts your foot and causes pain is not good as it prevents the normal joint motions and puts stress and strain through your ankles and feet. Measure your feet each time you shop for shoes as your foot shape can change over time. Look for shoes with plenty of room for your toes and good support through the arch.

Talk with your doctor if you are having trouble with your ankles or feet and they can direct you towards proper treatment. If you are in need of surgery on your ankles or feet look for an orthopedic surgeon who has done a fellowship (extra training) in foot and ankle surgery. Maintain good ankle health so you can put your best foot forward!

For more information about foot and ankle problems visit the American Orthopedic Foot and Ankle Society page at www.aofas.org/footcaremd



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