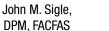
## **Don't Let Falls**

# Steal Your Independence!







Grant Gonzalez, DPM. FACFAS

Submitted by John M. Sigle, DPM, FACFAS and Grant Gonzalez, DPM, FACFAS, Foot & Ankle Center of Illinois

s we age, the risk of falling increases. According to the U.S. Center for Disease Control and Prevention, one in three adults experience a fall by the time they reach their mid-60s. Falls are the leading cause of nonfatal injuries. Although most falls result in minor bruises and scrapes, many cause bone fractures and lead to hospitalizations and long-term care. Falls resulted in over 27,000 deaths during 2015.

Seniors have the power to reduce their risk by taking preventive measures to maximize their independence and quality of life. There's no reason to let falls steal your independence.

Podiatrists play a key role in the prevention of falls for seniors because they are trained to identify patients who are at risk for falls and able to address the primary biomechanical problems that cause falls. The most common foot and ankle problems that place seniors at highest risk of falling are chronic ankle instability, hallux rigidus (big toe arthritis), and ankle, hindfoot, and midfoot arthritis. Here is a brief overview of the symptoms, causes, and treatments for these conditions.

#### Chronic ankle instability

Chronic Ankle Instability is characterized by a weak ankle that "gives way" on the lateral (outer) side of the ankle on a fairly regular basis. This occurrence is unpredictable and can occur while walking, running, or when standing. Common symptoms include pain, tenderness, and swelling.

The primary cause is usually the result of a prior ankle sprain or injury (i.e. fracture) that did not rehabilitate properly or fully heal. Consequently, ligaments surrounding the ankle remain stretched, weak, and sometimes torn. Other causes are not injury related. These include arthritis, inflammation in the synovium (joint lining), and a buildup of scar tissue, a damaged nerve, or nerve entrapment condition.

Physiotherapy is the most common treatment to rebuild ankle strength. Special bracing is also used to provide support. Surgery is considered if ligaments need to be tightened on the outside of the ankle to add support. In some cases, a tendon may be grafted from the other ankle to rebuild stability.

#### Arthritis of the Big Toe (Hallux Rigidus)

Hallux rigidus (hallux rig-i-dus) is a form of degenerative arthritis in the metatarsophalangeal (met-a-tar-so-pha-lan-gel-al) "big toe" joint (MTP) that usually develops in adults between the ages of 30 and 60. This condition is the most common form of arthritis in the foot. It is a progressive condition that limits the toe's range of motion over time

This condition occurs when the cartilage of the big toe is injured or because of an abnormal foot anatomy that puts an excessive stress load on the MTP joint. The deterioration of articular cartilage covering at the end of the bone results in a bone-on-bone condition.



Initial symptoms include joint stiffness, swelling, pain, discomfort, and restricted range of motion. The condition tends to be aggravated during cold and damp weather. Walking becomes abnormal and is usually associated with a limp that results in balance impairment. Recreational and fitness activities are restricted; manual labor that requires stooping or squatting is restricted as well.

As arthritis in the big toe joint advances, pain is present even during rest. Walking is difficult and evidenced with a limp. Bone spurs in the heel often develop, making it uncomfortable to wear shoes, especially high heels. Often, these conditions lead to pain in the knee, hip, and lower back.

Biomechanics and structural abnormalities are the primary causes of hallux rigidus. It is not caused by genetics, but it can be the result of inheriting a foot type that is prone to developing this condition. People who have excessive pronation (rolling in) of the ankles or fallen arches are more prone to develop this condition.

This condition can also result from injury, such as stubbing your big toe, from work activities that require excessive stooping and squatting, or by gout or rheumatoid arthritis (inflammatory diseases).

Early diagnosis will help avoid further problems. Diagnosis is usually made after X-rays are taken to determine the extent of degeneration and bone spur formation. Blood tests and aspiration may also be used to confirm diagnosis of septic arthritis.

Non-surgical treatments include anti-inflammatories and pain medications. Shoes that provide a larger toe box and stiffer sole with a rocker-panel design feature should be used. Sometimes a metal brace is placed inside the sole to limit toe bending. Cold and hot therapy is sometimes used as well as cortisone injections. Surgery may be done if therapy fails.

### Ankle, hindfoot and midfoot arthritis (Degenerative Joint Disease)

Arthritis is also common in three other locations of the ankle, hindfoot, and midfoot. There are three types of arthritis. Osteoarthritis, commonly referred to as wear-and-tear arthritis, typically occurs after reaching middle age. Rheumatoid Arthritis is a system-wide disease that attacks and destroys cartilage. Post-Traumatic Arthritis occurs following an injury such as a sprain, fracture, or torn/stretched ligament.

Arthritis symptoms of the foot vary depending on where it is present; however, the common symptoms include swelling, stiffness and reduced mobility, tenderness and pain, and difficulty walking.

Nonsurgical treatment may include the following: cold therapy; anti-inflammatories and pain medications; use of supportive footwear, custom orthotics, foot braces, balance braces, and casting; home therapy; participating in non-load bearing recreation activities; corticosteroid injections; and laser therapy.

Surgical treatment is considered when nonsurgical treatment does not provide sufficient response or pain relief. Surgery consists of Arthroscopic Debridement, Arthrodesis (fusion), and Arthroplasty (joint replacement).

**Arthroscopic Debridement** surgery is typically done during the early stages of arthritis, and Arthrodesis and Arthroplasty are done at end-stage arthritis.

**Arthrodesis surgery** is a complete fusion of the joint accomplished by the use of hardware to hold the bones in place while the joint fusion occurs. Bone grafts are sometimes used to replace a missing bone or, if there is bone loss, to fuse the bones of the joint completely.

**Fusion surgery** in the foot and ankle can be very successful and functional. It produces a stable platform for weight bearing and walking. This process mimics bracing but actually corrects deformities and joint instability permanently.

Arthroplasty surgery (joint replacement) is for candidates who are at end-stage arthritis with ankle joint surfaces that are destroyed. These patients are in severe pain and unable to do normal daily activities. Because of advances in implant design, this procedure is gaining popularity and becoming the treatment of choice.

According to Dr. Grant Gonzalez, a board-certified foot and ankle surgeon, "It's not possible to stop the aging process, but it is possible to take preventative steps to reduce your chance of falling. Many wonderful solutions are available to alleviate foot pain, improve gait and balance, and regain mobility."

Call 217-787-2700 to schedule an appointment at the Foot & Ankle Center of Illinois. Board certified surgeons are able to provide a comprehensive assessment of your condition with the aid of advanced diagnostic imaging and provide you with non-surgical and surgical options to improve balance and mobility.

