# OPTIMAL HEALTH UNIVERSITY

Presented by Randal Burkholder, DC

### **Common Causes of Foot Pain**

Did you know that the human foot consists of 26 bones, 33 joints and hundreds of muscles, nerves and ligaments? Yet its marvelous, complex structure is often taken for granted. Most feet endure hours of punishment every day. Snug shoes, repeated pounding and cramped positions are all in a day's work. Not surprisingly, pain spreads throughout the foot, including the toes, ball of the foot, arch, instep, sole, heel and ankle.

Dr. Burkholder wants to share recent research about common causes of foot pain and how chiropractic can help.

## Simple Annoyance or Serious Problem?

Some foot discomfort may seem like a mere minor annoyance. Other pain, which interferes with work, exercise or maneuverability, is more serious. However, *any* foot pain — whether it is small and intermittent or sharp and constant — deserves attention. Fortunately, chiropractic care may help.

#### The Chiropractic Approach ...

Doctors of chiropractic thoroughly investigate the nature of foot pain to determine the underlying source. This examination typically begins with diagnostic tests, such as examining one's gait and foot function and testing range of motion.



Dr. Burkholder will identify the origin of foot discomfort and determine the best course of care, including referral to another health-care professional if necessary.

#### ... That's Multifaceted

Dr. Burkholder knows that all structures within the body are intrinsically connected. Pain in any region should not be viewed as separate and treated in isolation. Foot pain is frequently linked to dysfunction in other structures, such as the spine, hips and legs.

Consider the relationship among the foot and the legs, hips and spine as a "chicken or egg" conundrum. Problems in one often contribute to or cause problems in the other. Why? The large muscles that move the extremities *also* move the spine, and the spine anchors the extremities.

That's why, to start, Dr. Burkholder may search for areas of the spine where motion is limited or spinal bones (vertebrae) are slightly out of place. This common condition is called *vertebral subluxation*, and is corrected with specialized maneuvers, known as *chiropractic adjustments*.

#### Foot and Ankle Adjustments

In addition to adjusting the spine, doctors of chiropractic may adjust other



joints throughout the body. *Extremity adjustments* involve adjusting the joints of the shoulders, elbows, wrists, hands, hips, knees, ankles and feet. Extremity adjustments directly to the foot and ankle are frequently extremely effective in resolving pain.

#### **Orthotics**

In addition to chiropractic adjustments, the doctor may recommend shoe inserts, known as orthotics, to help solve certain foot problems. Ask the doctor for additional information about this option.

#### Stretching

Doctors of chiropractic stress how essential exercise is to well-being. Try to get at least 60 minutes of exercise each day. Don't forget to stretch, especially the muscles connected to the foot

#### **Causes of Foot Pain**

The following are some of the most common causes of foot pain — along with information about how chiropractic will address these causes, and how successful it's been in alleviating these foot issues.

#### Plantar Fasciitis

Plantar fasciitis is marked by inflammation of the plantar fascia, which is the tissue along the bottom of the foot that connects the heel bone to the toes. The pain is usually worse in the morning because the fascia contracts overnight.

Randal Burkholder, DC, Burkholder Chiropractic Clinic, PC (717) 738-3474 809 North State Street, Ephrata, PA 17522 www.BurkholderChiro.com

The good news is that research shows that chiropractic care may help. One study included 15 patients with plantar fasciitis who had undergone surgery to correct the problem. Each patient had lateral foot pain after the operation and "suboptimal improvement" after four or more weeks of nonsteroidal anti-inflammatory drugs, shoe padding and rest.



After chiropractic care consisting of joint mobilization, chiropractic adjustments and exercise instruction, 11 patients noted "significant" improvement, three experienced "moderate" improvement and only one reported no change (*J Manipulative Physiol Ther* 2006;29:398-402).

#### **Osteoarthritis**

Osteoarthritis (OA) is the most common form of arthritis. It occurs when cartilage in the joints wears down over time. OA can affect any joint in the body, including those in the foot. If left unaddressed, the condition gradually worsens with time.

Chiropractic adjustments to correct subluxations may help. Subluxations stress the joints, causing them to move out of alignment. In response, the joints form bone spurs, which are jagged bits of deposited calcium. Bone spurs irritate surrounding muscles, tendons and tissue.

In one recent study, researchers divided 252 patients with OA into two treatment groups: 1) moist hot packs plus chiropractic care or 2) moist heat alone. The chiropractic patients "reported greater and more rapid pain reduction and greater and more rapid ROM [range of motion] improvement than the moist heat group." (*J Manipu-*

lative Physiol Ther 2006;29:107-14).

#### Bursitis

Bursitis is an inflammation or irritation of the small, fluid-filled sacs (bursae) near or involving a joint or bony protrusion. The bursae lubricate and cushion pressure points between bones, tendons and muscles.

Bursitis most often affects the joints in the hips, shoulders, elbows and knee — but it also occurs in the foot (by the heel and the base of the big toe).

Doctors of chiropractic commonly care for patients with bursitis. Patients report improvements in symptoms, including reduced pain and increased range of motion (ROM). In addition to spine, foot and ankle adjustments, the doctor may recommend other therapies, such as massage and ultrasound. In addition, the doctor may suggest gentle exercise, such as yoga, to increase flexibility and reduce muscle tension in the area of the bursa.

#### Ankle Sprain

Ankle sprains are the most common orthopedic injuries. They can happen anytime — simply planting the foot awkwardly can spark the condition. Many people are not aware that an ankle *sprain* involves the ligaments of the ankle joint, whereas an ankle *strain* involves tendons and muscles. Sprains ensue when the ankle ligaments are stretched beyond their limits.

Fortunately, chiropractic care may be even more beneficial than standard ultrasound therapy for healing ankle sprains.

In one study, researchers divided 30 patients with ankle sprains into two groups: 15 received ankle adjustments, and 15 underwent ultrasound treatment. After eight sessions spanning four weeks, the chiropractic group showed a greater reduction in pain and increased ankle range of motion and function, compared to the ultrasound group (*J Manipulative Physiol Ther* 2001;24:17-24).

#### Injury

Any physical injury — even a simple

fall — can spark joint dysfunction in the spine and other joints. This dysfunction often triggers enduring problems long after an injury appears to have healed.

That's why chiropractic care after any injury is vital, including foot traumas. In a recent study, a 17-year-old chiropractic patient suffered foot pain following a jumping injury, which prevented him from walking. Two medical doctors recommended resting.

The patient's doctor of chiropractic detected several dysfunctional joints in his foot, neck and sacroiliac joint. (The sacroiliac joint is the joint between the sacrum, at the base of the spine, and the ilium of the pelvis, which are joined by ligaments).

After four chiropractic sessions, the patient was able to stand by holding himself up on furniture and walk with a limp. After nine chiropractic visits, he could walk unassisted — and even run. The authors conclude that "this case provides supporting evidence on the effectiveness of chiropractic care in children with jumping injuries through subluxation detection and correction." (JVSR 2008;1-6.)

#### **Focus on Prevention**

This office teaches patients about the connection between mind, body and spirit. We know that pain in any segment of the body is connected to the whole system. That's why the doctor encourages you to focus on preventing dysfunction in the body prior to the onset of pain. We're your partners in health and want you to be well —from head to toe, including the foot!

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