

## Orthopaedic Specialties

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## SPRING Into Step With Orthopaedic Specialties: 10 Reasons to Get Out Walking!

- 1. Prevent Type 2 Diabetes.** The Diabetes Prevention Program study showed that walking 150 minutes a week and losing 12–15 pounds can reduce your risk of developing diabetes by 58%. showed that walking for 30 minutes, three to five times a week for 12 weeks reduced symptoms of depression by 47%. 
- 2. Strengthen your heart (male).** In one study, mortality rates among retired men who walked less than a mile a day were almost double that of those who walked over two miles a day.
- 3. Strengthen your heart (female).** Women in the Nurse's Health Study who walked three hours or more a week reduced their risk of a coronary event by 35% compared with women who did not walk.
- 4. Strengthen your brain.** In a study on walking and cognitive function, researchers found that women who walked at an easy pace for at least 1.5 hours a week had significantly better cognitive function and less cognitive decline than women who walked fewer than 40 minutes a week.
- 5. Strengthen your bones.** Research shows that postmenopausal women who walk about one mile a day have higher whole-body bone density than those who walk less. Walking can also help to slow the rate of bone loss in the legs.
- 6. Help reduce depression symptoms.** Standard depression questionnaire findings
- 7. Reduce breast & colon cancer risk.** Women who walk briskly for 1.25 hours to 2.5 hours a week had an 18% decreased risk of breast cancer compared to inactive women. Many studies have shown that exercise can prevent colon cancer, as well as reduce mortality among colon cancer patients.
- 8. Improve fitness.** As few as three 30 minute walks a week can significantly increase cardio-respiratory fitness.
- 9. Improve fitness...even with short bouts!** A study of otherwise inactive women showed that short periods of brisk walking (three 10-minute walks a day) yielded results that were comparable to longer bouts (one 30-minute walk a day) in improving fitness and decreasing body fatness.
- 10. Improve physical function.** Research shows that walking improves fitness and physical function and prevents physical disability in older persons.

Information from [medicinenet.com](http://medicinenet.com)

## Dr. Hughes Receives Honor for Service to Threshers



Dr. Hughes recently received a plaque in recognition of his 20 years of service as an orthopaedic specialist to Minor League Baseball team, the Clearwater Threshers. The Threshers are affiliated with the Philadelphia Phillies, who are the current Major League Baseball World Champs after besting our own Rays in the 2008 World Series. The Phillies have based their spring training here in Clearwater since 1947 at what is now Bright House Networks Field.

Dr. Hughes is thrilled to have the privilege of playing a role in supporting the wonderful athletes of this outstanding sports organization.

### OUR TEAM OF PHYSICIANS



**George A. Morris III, MD**  
Treating patients of all ages for all types of orthopaedic problems.



**Michael R. Piazza, MD**  
Treating all types of orthopaedic problems; specializing in spine disorders.



**Richard V. Abdo, MD**  
Specializing in foot & ankle conditions; joint replacement; sports medicine.



**W. Allen Hughes II, MD**  
Treating all types of orthopaedic problems; specializing in sports medicine.



**J. Byron Davidson, DO**  
Specializing in disorders of the spine.



**Howard L. Schuele, MD**  
Treating all types of orthopaedic problems.

## Foot and Ankle. The miracle of getting from Point A to Point B.

The average person takes about 8,000 to 10,000 steps every day. Added up over a lifetime, that means the average person will likely walk enough to circle the globe about four times. Are your feet sore just thinking about it?

Together, your foot and ankle make up one of the skeleton's most complex mechanisms. The foot contains 26 bones, 33 joints, 107 ligaments and 19 muscles. Its two most important functions are to bear weight and to propel your body from point A to point B. The components of the ankle, along with the muscles and tendons of the lower leg, all work together to handle the stress the ankle bears whenever you walk, run or jump. A problem with any one of these parts can cause pain as well as functional difficulties.

### Bones

The ankle joint, called the tibiotalar joint, consists of three major bones: the tibia, fibular and talus. The tibia is the large shin-bone; it forms the inside part of the ankle. The fibula is the smaller calf bone that forms the outside part of the ankle. The talus is the bone on the top of the foot that connects the ankle to the foot, allowing the foot to move up and down.

The subtalar joint is the primary joint of the hindfoot located just below the ankle joint. It consists of two major bones: the talus and calcaneus. The talus is the bone on the top of the foot; the calcaneus is the heel bone. This joint allows the foot to move side to side.

The other foot joints include:

- The talonavicular joint is where the talus connects to the naviculus, or the inner midfoot bone.

- The calcaneocuboid joint is where the heel bone connects to the cuboid, or the outer midfoot bone.

- The metatarsocuneiform joint is where one of the metatarsals, or forefoot bones, connects to the smaller mid-foot bones.

- The first metatarsophalangeal joint is where the first forefoot bone connects to the phalanx, or toe bone.

### Cartilage

The ends of the bones are covered by articular cartilage. The hard, slick material helps reduce friction between the bones during movement.

### Ligaments

The bones of the foot and ankle are joined to the other bones by short bands of tough fibrous connective tissue called ligaments. They give the joints strength and stability.

There are several major ligaments in the foot and ankle. Some of the more important ones include the following:

- The anterior tibiofibular ligament connects the tibia to the fibula.
- The lateral ligaments are three ligaments along the outside of the ankle that connect the fibula, talus and cal-

canus. These are the ligaments most commonly injured in an ankle sprain.

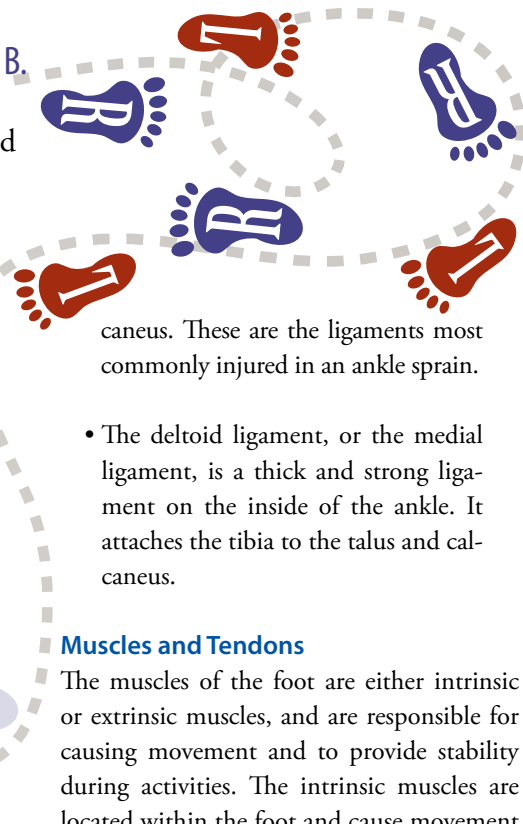
- The deltoid ligament, or the medial ligament, is a thick and strong ligament on the inside of the ankle. It attaches the tibia to the talus and calcaneus.

### Muscles and Tendons

The muscles of the foot are either intrinsic or extrinsic muscles, and are responsible for causing movement and to provide stability during activities. The intrinsic muscles are located within the foot and cause movement of the toes. Extrinsic muscles are located outside the foot in the lower leg.

The gastrocnemius muscle, or main calf muscle, is an extrinsic muscle. It allows a person to point the foot and stand on tip-toe. The peroneal muscles are on the outside of the legs; they provide stability and allow the foot to turn out. Other muscles help a person extend the foot and toes.

Muscles have tendons, which connect muscles to bones. The larger Achilles tendon is critical. It attaches the calf muscle to the heel bone, and it is responsible for allowing a person to walk, run and jump. The posterior tibial tendon attaches one of the smaller muscles of the calf to the underside of the foot. This tendon supports the arch. The anterior tibial tendon allows the foot to be raised. The muscles of the toes also have tendons.



## Walking for the Health of It: Getting Started | *Information from medicinenet.com*

If you are a beginner concerned about your motivation or ability to walk far, start slow with the "five minutes out, five minutes back" plan. It's as simple as it sounds: walk out for five minutes, turn around, and walk back. If you feel ambitious, start with 10 minutes out, 10 minutes back, or whatever length you feel confident with. If you can gradually add two to three minutes per week, you'll be up to 30 minutes before you know it.

### Power Walking

Warm up at your normal walking pace for five to 10 minutes, and then try your skill at power-walking. It can be more physically demanding than you might think, so start with 10-15 minutes the first few times out and finish up your 30 minutes at your normal walking pace so you don't overdo it.

### Interval training

Once you reach a baseline of 30 minutes of power-walking, try stepping up your training again with intervals. With intervals, you will set up work-to-active rest ratios to push your body and improve cardiorespiratory fitness. Here's an example of how to do intervals.

1. Walk at normal pace for three minutes, then
2. increase speed for one minute, then
3. back to normal speed for another three minutes, then
4. repeat this 1:3 interval cycling for your entire workout.
5. Over time, increase the work and decrease the active rest.

Here's an example of an interval training workout for someone who walks for 30 minutes at 3.5 mph.

1. Walk for 10 minutes at 3.5 mph, then
2. increase speed to 3.8 mph for one minute, then
3. walk again for three minutes at 3.5 mph, then
4. walk again at 3.8 mph, and so on until you reach your time limit.
5. Increase the work part to 1.5 minutes and decrease the active rest to 2.5 minutes as you get more fit (you walk faster, your heart doesn't pump as hard, and your breathing is easier).

After six to eight weeks of this type of training, your fitness will improve significantly.

### Planning your walks

I recommend setting a weekly plan for walking if you struggle with motivation or sticking with it. Planning increases compliance. Write down the day(s) of the week you'll walk, the time of day, how many minutes, and where you'll do it (location). Set and review your weekly plan every week for three months and then reevaluate at that time.

## STRETCHING

Here are five simple stretches before and after you walk. Ease into each stretch until you feel the tension in the muscle you want to stretch and hold until you can feel it loosen.

### Calf stretch

1. Face and lean against a wall or fence at arm's length.
2. Put one leg straight back and the other bent underneath you.
3. Keep back straight and lean hips forward.
4. Keep rear leg straight with heel on ground.
5. Repeat for other leg.

### Side stretch

1. Stand with both arms over head.
2. Lean to one side, then the other.
3. An alternative is to leave your right arm at your side and bend to the right while reaching your left arm overhead, then reverse.

### Torso twist

1. Stand with both arms out to side with elbows slightly bent.
2. Feet should be at shoulder width or slightly wider.
3. Twist your torso to the right and then the left, alternating back and forth slowly.

### Quadriceps (thigh)

1. While leaning against a wall, reach back with your left hand and grab your right ankle.
2. Pull your foot back and away from your buttocks.
3. Repeat for other side.

### Hamstrings (back of legs)

1. Put your right leg out about 18 inches from your body with toe pointed up.
2. Bend your left leg slightly.
3. Reach down with both hands toward your right foot.
4. Repeat for other side.
5. Alternatively, you can sit down on the edge of your bed or a park bench with one leg up and the other on the floor and reach with both hands until you feel the stretch in the back of the leg.



## Foot Symptom "Red Flags" from the American Orthopaedic Foot & Ankle Society (aofas.org)

If any of these symptoms are present, it is time to consult an orthopaedic specialist:

- Pain that persists for more than 72 hours
- Swelling of one leg or foot for more than 24 hours
- Pain which increases with exercise or walking
- Pain at rest or with elevation of the legs
- Sudden progression of a foot deformity
- Any infection
- Development of a blister or ulcer on the foot which you did not feel occurring or which is not healing
- A flattening of the arch of one foot or both feet
- Loss of sensation