

TWIN CITIES ORTHOPEDICS



Foot and Ankle Surgery

Patient Information

DR. SCOTT HOLTHUSEN

STACEY W. (CARE COORDINATOR), MITCH FOGAL, PA-C

Planning and preparing for your upcoming surgery

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Important Contact Phone Numbers

Medical Questions: Mon-Fri 8:00am – 5:00pm
952-442-8205
-Ask for Mitch

Internet Resources

Dr. Holthusen's Physical Rehabilitation Protocols
www.tcomn.com/physicians/scott-holthusen

Common Surgical Procedures

- <http://www.footeducation.com/surgical-procedures>

Lodging

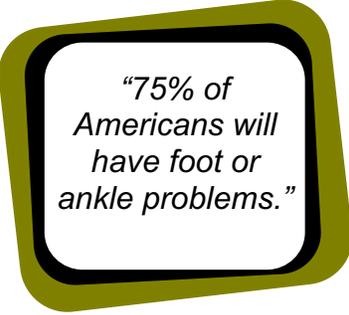
AmericInn
5500 Cherry Drive
Waconia, MN 55387
952-442-8787

Transportation

Water's Edge Transportation
952-442-7022

Introduction

Most of the time, we hardly give a thought to getting places by walking. But when our feet hurt, even a short distance can be an agonizing ordeal.



*“75% of
Americans will
have foot or
ankle problems.”*

It is estimated that approximately, 75% of Americans will have foot or Ankle problems at some time during their lives.

Unfortunately, some of these problems go untreated due to the mistaken belief that foot discomfort is a natural part of getting older. In reality, a lot can be done about a pain in the foot.

The foot contains 26 bones, 33 joints, and a network of more than 100 tendons, muscles and ligaments. While this complex structure allows us to walk, run and jump, it also exposes us to a variety of injuries when we wear improperly fitting shoes or subject our feet to repetitive stress in sports and other activities. If we have misaligned bones or tight muscles, walking function can also be impaired.

This booklet has been put together by our foot and ankle team to assist you in planning and preparing for your upcoming surgery. It contains information about what you will experience before and after your foot or ankle surgery.

Reasons for foot and ankle surgery

The decision for surgery-

Many foot and ankle problems can be successfully managed without surgery. Medication, physical therapy, orthotics, shoe modification or walking aids, weight control or modification of leisure/sporting activities are suggested. Your surgeon may recommend you try some of these approaches before you decide if surgery is necessary.

Other foot and ankle problems may require surgery to resolve longstanding joint pain or deformity or to remove diseased tissue. These procedures may help to slow down the damaging process or to structurally realign the foot and ankle and reduce abnormal stresses.

During your first visit with the foot and ankle surgical team, we will ask you questions about your foot and ankle history. We will examine your foot and ankle to check for pain, swelling, open sores (ulcers) range of motion, alignment, strength and stability. X-rays may be taken to allow further assessment of your foot and ankle.

Foot and ankle surgery is considered mainly for those people with problems that can no longer be successfully managed by conservative means.

Surgery is performed for most of the following reasons:

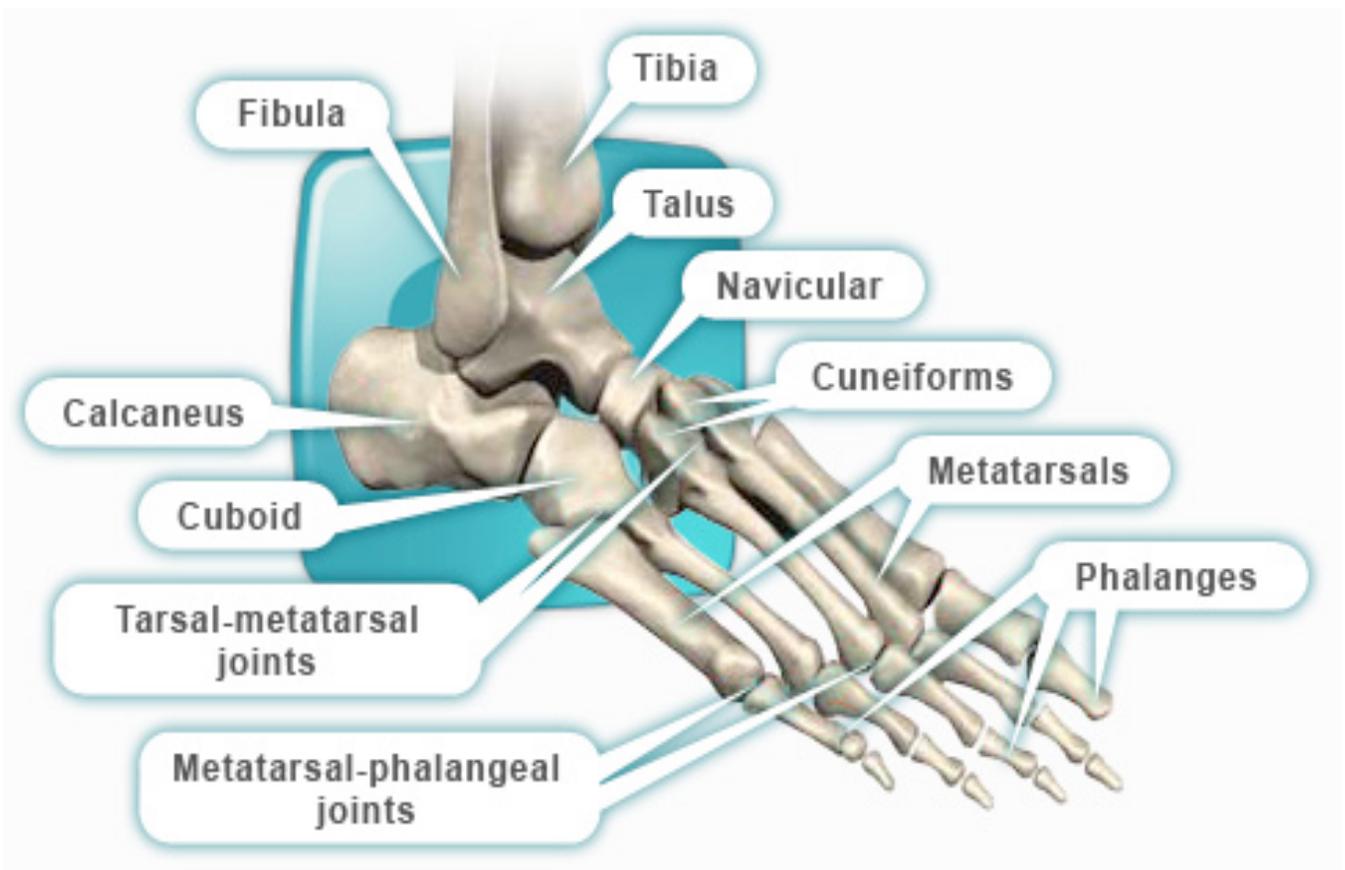
1. To improve alignment and correct deformity
2. To improve function (such as walking, standing, bathing, etc.)
3. To prevent future problems
4. To treat infection
5. To reduce or relieve pain

Types of foot and ankle surgical procedures

Foot fusions, reconstructions and joint replacements

Many different types of surgical procedures are performed by Dr. Holthusen. Examples include the correction of bunion deformities, rheumatoid feet, arthritic joints, plantar fasciitis, Achilles tendon ruptures, flat foot and high arch foot reconstructions, and treatment of diabetes related sores (ulcers). Joint replacement surgery, such as ankle replacements are also performed.

Bones of the Foot



Glossary of surgical terms and procedures

Gastroc Recession

A surgical procedure that reduces the pull of a tight Achilles' tendon. It is used when the Achilles' is tight because of a short gastrocnemius muscle (abbreviated gastroc.). A tight Achilles' tendon can cause multiple foot problems, including flat foot and hallux valgus. The gastroc muscle is located in the calf of the leg and is attached with the soleus muscle to the Achilles' tendon. Gastroc. Slide surgery cuts the tissue connecting the gastroc muscle to the soleus and the Achilles'.

Arthrodesis (Fusion)

The procedure of solidly fusing a joint (Arthro=joint + desis = fusion).

Arthroplasty

The surgical refashioning or replacement of a joint to restore function and integrity.

Arthrotomy

Incision of (cutting into) a joint.

Cheilectomy

Trimming/chiseling off the irregular edges (arthritis) of bones that interfere with joint motion.

Debridement

Removal of excess tissue or bone.

Osteotomy

Surgical cutting and realignment of a bone. The bone can be lengthened, shortened, or shifted to a new place.

Percutaneous Achilles Tendon Lengthening

The goal of this procedure is to stretch a tight Achilles tendon. This allows increased motion at the ankle joint. This procedure may be only one part of a surgery to help correct a mal-positioned foot.

What to expect from having foot and ankle surgery

The purpose of your operation is to improve the function of your foot and ankle and the quality of your life. In some cases, two or more bones may be joined together by screws or plates. The purpose of this is to help the bone grow together and form a fusion. At first, you will not be able to put weight on that foot. By the end of the second month your foot should be strong enough to begin limited weight bearing. Depending on the surgery, at three months, you may be able to walk short distances. The swelling on the surgical foot, and the range of motion of the surrounding joints should gradually improve over the first 6 months and you should be noticeably better than before the operation. Improvement will even occur up to one year after surgery. However, different people vary in their recovery time, so you should not be too concerned about a delay in your recovery as long as things are improving. Additionally, some procedures take a year or more for recovery.

Complications after surgery occur in 5 to 10% of cases on average. Your particular procedure may have a higher risk of complication – your surgeon will inform you if this is the case. Only you can make the decision to have surgery, or not. Each surgery is different and the time it takes to recover varies for each person.

The risks of having foot and ankle surgery

There are temporary problems that include delay in wound healing, wound infection, delay in bone healing, and stiffness.

Some problems may require further surgery to correct.

These include:

- Delay in bone healing
- Painful screws or pins (these can be removed once the bone is healed)
- Wound healing problems or infection requiring skin grafting or surgical cleaning
- Union of the bones in the wrong position (the bone may have to be rebroken and repositioned)
- Loosening and wear of the joint replacement parts. This applies to joint replacements only.

The risks of having foot and ankle surgery continued...

Some less likely problems can cause long-term complications.

These include:

- Reflex sympathetic dystrophy or chronic regional pain syndrome (overactive pain response to surgery)
- Nerve damage during the operation (partial nerve injury = burning; complete nerve injury = numb)
- Failure of the bones to join. Smoking can cause delayed bone healing. Stop smoking four weeks before the operation and do not start again for at least six months.
- Infection in the joint replacement parts. A revision may be required here
- Infection in the bone

Some problems may relate to your general health. Remember, any surgery is a stress to your body. Complications relating to any surgery or anesthetic include:

- Heart attack (this risk applies particularly to those with previous heart problems)
- Chest infection (pneumonia)
- Reaction to the anesthesia
- Blood clots. These are rare after foot and ankle surgery. It is very important to notify your doctor if you have previous deep vein clots. Death after foot and ankle surgery is very rare, but may be caused by blood clots or heart attacks.

Before your surgery

Before your surgery, there are a number of things you can do to prepare and make your hospital stay and surgery as smooth as possible. Start by making these preparations 1 to 2 months prior to your scheduled surgery if possible.

Pre-surgical education

Read all information provided on your surgery carefully. Keep this information for reference. We recommend you bring this handout to the hospital with you.

Smoking

Are you a smoker? Stop smoking at least four weeks before your surgery. If you need help, please visit smokefree.gov or www.helpguide.org or call 1-800 QUIT-NOW for advice and more details on how to stop.

Note: Patients who continue to smoke at the time of surgery assume additional complication risk due to the major interference with bone healing caused by smoking!

Before your surgery continued...

Ensuring good health and nutrition

Prior to the surgery, you should be in as good health as possible. The healthier you are, the quicker you will recover from surgery.

Mobility in daily life

Discuss any mobility problems you expect to have prior to your surgery. Do you have stairs at home? Do you need to install a ramp? Do you know of how to use a walker and crutches? Make arrangements in advance of your surgery for any necessary home or work mobility modifications. A knee walker may be useful and can be obtained by any home medical supply store with a written prescription from your physician.

Assistive Devices

Discuss assistive devices with the physical therapist. They will advise you regarding possible needs including raised toilet seat, a commode, or urinal for several weeks after surgery. Most medical supply stores sell and/or rent a variety of assistive devices and equipment. Look in the yellow pages under medical supplies for stores in your area. Some pharmacies also sell assistive devices listed below

Local Medical Supply Stores

Ridgeview Home Medical Equipment
501 S Maple St Ste 2 Waconia, MN 55387
Phone: (952) 442-2283
Fax: 952-442-2948

Liberty Oxygen and Medical Equipment
1667 17th Ave E Ste 102 Shakopee, MN 55379
Phone: (952) 445-5454
Fax: 952-445-5484
Hours:

Mon – Fri 8:30 AM - 5:00 PM
Sat 10:00 AM - 2:00 PM



Typical assistive devices that you might need include:

- CAM Walker boot – given prior to surgery or at first post op visit
- Post Operative shoe
- Crutches or a walker – Bring to Hospital if you own them
- Wheelchair with elevated foot pedal
- Raised toilet seat
- Shower chair
- Non-slip mat inside and outside shower stall or bathtub
- Hand-held shower hose attachment



Holiday and business travel

As with recreational activities and work requirements, talk to your surgeon about travel plans after your surgery. Extended holiday or business travel is inadvisable for several months after major foot or ankle surgery, and you need to be particularly careful about overseas travel, including long-distance air travel.

Returning to recreational activities

Do not commit yourself to returning to sports or other recreational activities without discussing this with your surgeon. For example, if you are planning to return to a seasonal sport (such as skiing or soccer), it is best to schedule surgery at the end of one season so that you have ample recovery time for the next season.

If you are planning to return to another year-round recreational activity, such as skateboarding or intensive power walking, check with you surgeon about these activities.

Checklist for preparing your home environment

You may need to make some changes in your home to keep you safe and make your recovery after surgery more comfortable and efficient. Use this checklist to determine what changes you **might** need to make prior to your surgery.

- Install railings along stairs.
- Remove scatter (throw) rugs.
- Reorganize cupboards, closets, refrigerators, and the bathroom and kitchen so that items you use often are within safe reach.
- Make sure the inside of your home is well-lit and has night lights where needed.
- Remove mildew or ice from outside steps, and ensure that step risers are secure.
- Add pillows or raised cushions to low chairs. Chairs should have a firm back and armrests for best support.
- Remove all plants and other items from stairways.
- Move electrical cords out of the way (but do not run them under rugs!).
- Install a grab bar or secure hand rail in you shower, bath, and toilet areas.
- Install a hand-held shower attachment for easier bathing.
- Prepare a downstairs bedroom if going upstairs is going to be a problem.
- Arrange for someone to look after you home while you are in the hospital. This may include watering plants, caring for pets, and picking up mail.
- Cancel any services you do not need while in the hospital, such as newspaper delivery, homemaker services, etc.
- Buy convenient microwave frozen foods, or prepare your own and freeze them for reheating.
- Discuss with your family, friends, or caregivers what your transportation needs will be to and from the hospital or surgery center, and during your recovery.
- Arrange with family or friends to act as “helpers” when you get home to assist with your daily activities. These may include bathing, dressing, meal preparation, errands, grocery shopping, and transportation. If you already have home assistance services, arrange these to increase in the weeks after surgery. If you need help locating home assistance services, contact your health care team for a social work referral.
- During inpatient hospital stays, social workers are available for discussion of skilled nursing facility placements.

Immediately after your surgery

Splints: After your surgery, you may have a soft “Jones” splint from your knee down to your foot, but you will be able to see your toes



“Jones Splint”

Foot elevation: You will need to stay in bed for 24 to 72 hours after surgery with your foot elevated up to the level of your heart. This helps to reduce the amount of swelling in your foot.

Wheelchair and crutches use: Before or after surgery, you will be instructed on crutch use. Some people need a wheelchair. You will not be sent home until the healthcare team believes you are safe to get around on your own. If you are having problems getting around, you may need a short stay in a skilled nursing facility to build up your strength and mobility skills until you can get safely around on your own.

Weight bearing on your foot: It is very important that you do not walk on your foot. Your doctor will tell you when you are allowed to put weight on your foot.

Managing your foot in hospital after your surgery

Foot pain: You will have some pain after having surgery on your foot and/or ankle. You will have medications ordered to help you control this pain. The purpose of the medications is to reduce the pain to a manageable level. If you need something more for pain, or if you feel that your pain medication is not working, call our office to discuss your needs.

Popliteal nerve blocks: During your operation your anesthesiologist may inject a long-acting anesthetic agent like Marcaine into your upper leg which will inhibit pain in your foot for up to 24 hours post –operatively. Ask your orthopedic surgeon whether you can expect this method of pain control after your operation.

Swelling: Swelling can be controlled by keeping you foot elevated at heart level or 6 inches above for 24-48 hours.

Numbness: Often local anesthetic is placed in the nerves around your foot during the operation. You may notice numbness but no pain until this anesthetic wears off. Do not worry – this is normal. Report it to the doctor or nurses if it lasts more than 36 hours.

Mobility: Remember to keep your foot in a walker boot and off the floor. Use crutches, a walker, and/or a wheelchair for mobility support.

Managing your recovery at home after your surgery

The first few days – rest!

Settle into a comfortable place you set up before having surgery, such as a bed or a chair. Put your foot up. Have juice, water, food. Enjoy your family, take a nap, and don't forget to take your pain medication as directed.

What should your support people do for you?

They should make sure there is an adequate supply of fluids nearby, and that pain medications are available. They should stand by when you travel to the bathroom, and get your assistive devices to help you walk. They should help you get your rest and avoid unnecessary distractions.

Minimizing your pain (from the day after to two weeks after surgery)

Pain or discomfort usually decreases gradually over the six weeks after surgery. It is important to take the pain medications regularly as prescribed, and when the pain interferes with your rest, mood, appetite, or daily routine. Rest often and do not push yourself beyond your limits. Practice relaxation techniques such as deep breathing, imagery, and listening to music. If you find that your exercises are painful, take your pain medication 30 minutes before exercising or going for physical therapy. Watch out not to snag your surgical pins (if you have these) on your clothing or bed linen – it will hurt!

Pain management prescriptions:

Usually, to manage the pain, your doctor will give you a prescription for medications that will help relieve your pain during recovery. These most commonly are plain Tylenol (1-2 tablets every 4-6 hours while awake), or Norco/ Hydrocodone. Side effects of Norco include nausea, dizziness, or constipation. Over the counter constipation medication such as Colace® is recommended to help with constipation.

What if your pain is not very well controlled?

Assess-

Can you feel your toes? Are the nail beds pink?

Were you up? How long were you up with your feet below your heart?

Where does it hurt?

How much does it hurt on a scale from 1 (very little) to 10 (worst pain)?

What can you do?

Elevate your foot

Take your pain medication

Reassess-

If you are still not controlling your pain, call the clinic with your name, date of birth, and best call back number.

*If you need emergent attention – go to nearest Emergency Room

Reducing the swelling:

It is normal to have swelling in your foot and ankle after surgery. Raise your entire foot above the level of your heart (no more than 6 inches above) and gently pump your foot or toes up and down if able. Reducing the swelling will also help you regain motion in your knee and control of your thigh muscles.

Caring for your incisions:

Do NOT soak your incision in water until 1 week after having your sutures removed at your first post operative visit. Do not apply any creams directly to the incision during this time. The sutures will be removed approximately 2 weeks after surgery.

Occasionally there is a small amount of oozing from the wound after the sutures are removed. Expose the wound to the air or apply thin, sterile gauze dressing if needed.

Check your incision daily for signs of infection. Clarify with your surgeon when you can get your foot wet and who should change the dressings.

Checking for possible problems:

Some of the problems described in the risks of surgery section above may occur after you have been discharged from the hospital or surgery center. It is very important to continue checking for signs of infection and blood clots, and to bring any concerns to your healthcare team's attention.

Constipation:

The combination of pain pills, dehydration, and immobility after surgery may cause constipation. Missing a bowel movement for one or two days is not uncommon, but try to be proactive to prevent severe constipation and pain.

- Keep well hydrated (drink fluids)
- Eat lots of fiber and fruit
- Change to non-narcotic pain medications like Tylenol
- Continue to use Colace early on (stop if loose stools result)

Post-surgical activity:

Many foot and ankle surgeries will require a period of non-weight bearing, so you could be non-weight bearing after surgery for 6-12 weeks. You will be given specific instructions at the time of your discharge from the hospital as to when to begin weight-bearing. During your follow-up visits, your healthcare team will tell you when it is safe to put weight on your surgical foot.

Call or see your healthcare team IMMEDIATELY if:

- Swelling continues to increase, despite the foot being elevated.
- Pain worsens in spite of taking your pain medication
- Your temperature goes up for more than 4 hours (over 101.5° F)
- You develop chest pains or shortness of breath
- You develop numbness in your surgical foot
- You develop pain and tightness at the back of your leg
- Occasionally, too much swelling can occur and this will affect the nerves in your foot. If your foot remains very sore, or if you develop numbness in your toes, even after keeping it elevated, contact the clinic or go to the urgent care located in our Waconia office.

Follow-up appointments

As soon as you get home from surgery, if you have not already done so, contact the clinic for your follow-up appointments. Depending on your location, it may be more convenient for you to be seen at the Waconia Professional building clinic or the Chaska 212 Medical clinic location. The following is what you might expect at your post operative visits.

Visit #1: Approximately 2 weeks from your surgery date

- Examination by Physician Assistant
- Splint removed
- X-rays ordered and reviewed
- Sutures removed and Steri Strips applied
- New CAM Boot or Cast applied
- * For gastroc/ hardware removal procedures – progress to shoe during the day
- Start physical therapy if indicated

***ROM** (Range of motion) exercises should be done if you have been instructed to do them. Take off the boot three times a day for ROM exercises, and do 30 repetitions of the exercises for the joints of your foot.

Visit #2: 6-7 weeks from surgery date

- MD examination
- X-rays taken (no x-rays needed for gastroc procedures or hardware removal)
- Physical therapy referral * **typically begin progressive weight bearing at week 7 (20 lbs of weight every 3 days)**, may be longer @ surgeon's discretion

Visit #3: 12 weeks from surgery date

- MD examination
- X-ray taken
- See physical therapist for transition to regular shoe
- *possibly just beginning progressive Weight Bearing depending on procedure.
- Discuss possible hardware removal in 3 months

***Recovery time**

It will take three to six months before you feel a definite improvement in the comfort of your foot. The swelling may take over a year to settle down. The range of motion may also take over a year to improve.

Follow-up foot care and assistive devices

Foot care and supportive shoes

To promote healing of your foot and to maintain foot health:

- Keep your foot clean and dry, and your skin soft.
- Inspect your feet for changes on a regular basis.
- Wear good walking shoes once your surgeon has approved switching to regular shoes.

How to choose a supportive shoe

The single most important aspect of a shoe is to have it professionally fitted.

Make sure the shoe has:

- Tie lacing with several holes to secure the foot snugly in the shoe, and to allow for swelling.
- Sufficient toe width and depth to accommodate your foot comfortably.
- A firm, well fitting heel counter which extends into the arch.
- **It is not unusual to have to return to the walking boot for short periods of time while transitioning to shoes.**

Physical therapy and recovery exercises

During the postoperative course, you will be directed on appropriate therapy for recovery. Later your program will include exercises to strengthen your leg muscles. Additional exercises will be given to stretch tight muscles and other tissues, especially your hamstring and calf muscles that attach at the back of your knee.

Your balance and proprioception (awareness of joint position) will be poor after the surgery and while there is swelling. Some exercises will help to restore your confidence in your foot and decrease your risk of losing your balance or falling.

If you continue to have problems with your walking pattern, the therapist will give you exercises and suggestions on how to improve it. Whenever possible, the exercises will be functional and designed to address your individual needs for self care, home care, mobility, and leisure activity needs. If you have concerns about your ability to do specific daily activities, talk to your physical therapist.

Outpatient Physical Therapy isn't usually necessary until 7 weeks after surgery. There may be exceptions such as a gastroc recession. Please ask your therapist about the guidelines for this procedure.

Therapy guidelines can be found on our website:

www.tcomn.com/physicians/scott-holthusen



Patient Testimonials

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Rehabilitation
Protocols

[Achilles Non-Operative](#)

[Achilles Repair](#)

[Calcaneus Fx Repair](#)

[Foot Reconstruction](#)

[Gastroc Recession](#)

[Modified Brostrom](#)

[Percutaneous Tendo-](#)

[Achilles Lengthening](#)

[Plantar Fascia Rupture](#)

[Quadricep Patellar](#)

[Tendon Repair](#)

[Total Ankle Arthroplasty](#)

Practice Overview

Scott M. Holthusen, MD, specializes in all aspects of foot and ankle care including arthroscopy, complex, reconstruction, total ankle replacement, trauma and nonoperative management. His other interests include general orthopedic care with an emphasis on fracture management and arthritis treatment.

Clinical Interest

Ankle Care, including Ankle Joint Revision, Ankle Joint Replacement, and Podiatry

Hand Care

Hip Care

Knee Care

Pediatric Care

Sports Medicine

Wrist Care

Education

Certification

Board Certified, American Board of Orthopaedic Surgery

Fellowship

Fellowship in Foot & Ankle Surgery at the University of Washington/Harborview Medical School

Residency

Grand Rapids Medical Education and Research Center

Medical Degree

University of Minnesota Medical School

Living with your reconstructed foot/ankle

Return to work

Returns to work times vary for foot and ankle surgical patients. It depends on your job, the operation performed, and how much pain and swelling you have after the operation. In some cases you may return after a week; for others it may take six weeks. In some cases the surgery will not allow you to return to your prior occupation. Here are some things you should consider about returning to work:

- Can you work while not bearing weight on the foot? If so, pain will be the main limiting factor. It is unlikely that you will be able to return to work for at least 2 weeks after the surgery.
- If you have to bear weight on the foot and you have had a fusion, it will take you three months, minimum, to be able to bear weight on the foot. It will usually take six weeks after that to be comfortable enough to return to work. If the pain is slow to go away, it may take longer.
- If you develop a **nonunion** (the bones are taking longer than usual to join), then it may take up to a year off work to recover if the surgery has to be repeated. This could be a complication resulting from smoking.
- Discuss the timing of the surgery with your employer and your surgeon, who may be able to change the time of your surgery to accommodate your work schedule.
- Please have your disability forms and payments reviewed, completed, and approved before your surgery. Make sure you know what you are eligible for under your insurance or other coverage. If you have paperwork specific to your employment, or dealing with workers compensation or other insurance requirements, please bring this with you to your appointment.

Return to driving

Depending on your surgery, you won't be able to drive for about 12 weeks. You will be able to drive sooner for left foot surgeries. Your surgeon cannot clear you to drive due to legal restrictions. After 12 weeks you should demonstrate to a friend or family member that you can safely drive.

Airport security and your foot hardware

The hardware (screws and plates) in your foot or ankle should not set off the security sensor alarms as you pass through airport security. However, if this does happen, show the security officer the scars from your surgery and they will check for metal with a hand-held metal detector. An identification card signed by your surgeon is no longer required by airport security. If you have questions about airport security screening matters, contact the air carrier you travel with.

Antibiotics for dental work

Antibiotics for dental work are required for some patients with total joint replacements and can be arranged through our office.

Recreational activity guidelines

In most cases, it will take a while for the foot to feel comfortable during strenuous activities. Apart from minor surgery (such as ankle arthroscopy) it will take 4-6 months for your foot to feel comfortable depending on surgery and the activity.