

## ANKLE ARTHRODESIS (FUSION) - POSTOPERATIVE INSTRUCTIONS

The ankle joint is a large joint that connects the lower end of the leg bones, the fibula and tibia, with the talus bone of the foot. In the ankle joint, as in any joint, the ends of the bones are covered by articular cartilage.

Ankle arthritis is a joint condition which results from damage and loss of the articular cartilage. The surrounding soft tissue and bones are also affected. It can cause pain, stiffness, deformity and limited mobility of the joint. **Ankle arthrodesis**, also known as **ankle fusion**, may be indicated in selected cases of end-stage arthritis, especially when the non-operative treatment has failed.

### SURGICAL PROCEDURE

The main goal of ankle fusion surgery is to relieve pain. The surgery involves soft tissue and bone procedures. The ankle bones are fused and become one bone as they heal. The joint will be permanently stiffened so it can no longer bend. However, the patient will experience significant pain relief.

The operation can be done as an open surgery or as a minimally invasive technique called arthroscopy. This will be decided based on your unique case and the surgeon's preference. Additional procedures such as osteotomies (bone cut) and another arthrodesis (joint fusion) may be required during surgery. Eventually, a bone graft will be needed, and it may be taken from the pelvis or the area just below the knee.

If the open technique was chosen the surgeon will make one or more incisions in your foot/ankle to access the joint. Any remaining articular cartilage will be removed, and bone surfaces exposed. The bones are fixed in the proper position with screws, plates or other metal implants.

The arthroscopic technique (keyhole) is performed through 3 or 4 very small incisions with the help of a small video camera and tiny instruments. As in open surgery, the damaged cartilage is removed, and the bones are held together with screws. The position of the implants is checked using an x-ray image. The incisions are closed. After dressing, a splint is applied.

The surgical procedure usually takes 2-3 hours. It can be done under regional or general anesthesia. Additionally, you may receive a nerve block. This will be decided between you and the anesthesiologist before surgery.



Lateral view



Anterior-posterior view

Fig.1 & 2  
Postoperative x-rays  
(screws were used)



Fig.3 - Postoperative x-ray of ankle & subtalar fusion (a nail and screws were used)

**Footbridge Centre for Integrated Orthopaedic Care Inc.**

Unit 221, 181 Keefer Place t: 778-945-6756  
Vancouver, BC V6B 6C1 f: 778-945-6775

[www.footbridgeclinic.com](http://www.footbridgeclinic.com)

# **ANKLE ARTHRODESIS (FUSION) - POSTOPERATIVE INSTRUCTIONS**

## **RECOVERY - ANKLE ARTHRODESIS**

Ankle arthrodesis is one of the foot and ankle surgeries with the longest recovery time. It is extremely important that you rest and keep your foot elevated for the first 2 weeks after surgery. You will be non-weight bearing for the first 6-8 weeks, and after this period you will be weight bearing with a walking boot unless instructed otherwise by your doctor. An assistive device will be needed in the immediate postoperative period.

Recovery after arthroscopic ankle fusion is expected to be faster compared to open surgery.

Patients usually return to their usual activities around 4-6 months after surgery. Ankle fusion does change how a person walks, however, with proper shoes most patients do not limp. It might take up to 12-18 months for maximum benefits to be achieved.

After rehabilitation, walking, dancing, cycling and swimming are encouraged. However, patients may experience difficulties in activities that involve running.

## **POSTOPERATIVE CARE - ANKLE ARTHRODESIS**

### **HOSPITAL STAY/DISCHARGE**

After recovering from the anesthetic which takes about an hour, you will be taken to the recovery area and then possibly to the orthopaedic ward if you are being admitted overnight. You will notice a large dressing over the foot, and you will be wearing a splint. Medical staff will monitor your vital signs, pain level, and the need for medications. You will be given antibiotics and pain medication. It also may be prescribed medicine to prevent blood clots.

The procedure is usually performed in an inpatient setting, with the patient spending 1-2 nights at the hospital in most cases.

The physiotherapist will help you use the walking aid of your preference and once you can walk safely and your pain is under control (without the need for intravenous medication) you will be discharged.

### **WEIGHT BEARING**

- After the surgical procedure you will be non-weight bearing for 6-8 weeks, and you must use a walking aid (crutches, walker, wheelchair, knee scooter) for your comfort.
- In the immediate postoperative period, you should only walk short distances, such as going to the bathroom and back to your bedroom or living room.
- On the first postoperative visit you will switch the splint for a walking boot. Unless instructed otherwise by your surgeon.

*Footbridge Centre for Integrated Orthopaedic Care Inc.*

Unit 221, 181 Keefer Place t: 778-945-6756  
Vancouver, BC V6B 6C1 f: 778-945-6775

[www.footbridgeclinic.com](http://www.footbridgeclinic.com)



# ANKLE ARTHRODESIS (FUSION) - POSTOPERATIVE INSTRUCTIONS

## AT HOME: ACTIVITY/ SELF-CARE

- To help manage your pain and swelling elevate your foot/ankle (see Swelling control section), take pain medication as prescribed and use cold therapy as directed (see Cold therapy section).
- Wiggle your toes several times an hour to maintain circulation.
- X-rays will be taken at your follow-up appointments to assess the healing process and to ensure you can safely bear weight.
- Getting dressed - first, put clothes on the operative side.
- Undressing - first, remove clothes from the non-operative side.

## **SWELLING CONTROL**

- First and foremost, it is important to keep swelling down during the first few weeks after surgery. Plan on doing nothing more than resting and elevating your limb. This will also help you manage your pain and improve wound healing.
- Elevate the foot/ankle above the level of the heart. Elevation is achieved by placing several pillows under the entire lower limb from the heel to the thigh.
- Swelling in your foot/ankle can last for several months after surgery. You will be encouraged to elevate your foot and apply ice to reduce swelling.

## **PAIN MANAGEMENT**

- Medication, limb elevation, ice therapy and rest are essential in pain management.
- The usual regimen we use is a combination of acetaminophen and narcotics.
- Taking your pain medicine as prescribed by your surgeon regularly will help you manage your pain more effectively, even if you are in mild pain.
- Strong painkiller (hydromorphone, codeine, oxycodone, etc) has been prescribed, so don't wait until the pain is severe. Use strictly as prescribed by your doctor. Do not take an extra dose.
- In case of remaining pills, you should return them to the pharmacy. If it is not possible to do that, it is recommended to take medications out of the container, mix them with unpalatable substances, such as used coffee grounds, dirt or kitty litter, sealing in a plastic bag, and throwing in the trash.
- **IF HAVING A NERVE BLOCK: it is important to start taking regular pain medication before the nerve block wears off (see the Nerve Block HANDOUT for more information).**

## **WOUND CARE/ SHOWER**

- If a splint (or boot) was applied, it should remain in place until your follow-up appointment at Footbridge Clinic.
- You can shower, but you must keep your splint dry and covered. You may place a large plastic bag over the leg and secure it with tape. You may also purchase a waterproof leg cast cover.
- If non-absorbable sutures or staples are used, they will be removed at the 2-week postoperative visit.

## **ANKLE ARTHRODESIS (FUSION) - POSTOPERATIVE INSTRUCTIONS**

### **BLOOD THINNERS**

- During your hospital stay may be given to you oral or injectable blood thinners but you may not need them after hospital discharge. Follow your doctor's prescription.

### **COLD THERAPY (ICE THERAPY)**

- **DO NOT** use cold therapy if your nerve block is still in effect. You should wait until your function and normal sensation have returned (**IF HAVING A NERVE BLOCK**).
- The ice pack must be large enough to cover the front area of the foot/ankle.
- You could apply ice for up to 15-20 minutes, remove it for an hour and repeat the application 6 to 8 times a day, always with one-hour intervals. Remember that you must put a thin towel between the ice/ice pack and your skin.
- If you are using a CRYO THERAPY UNIT please follow the manufacturer's directions.
- **DO NOT SLEEP WITH ICE.**

### **PHYSIOTHERAPY**

The goals of physiotherapy are:

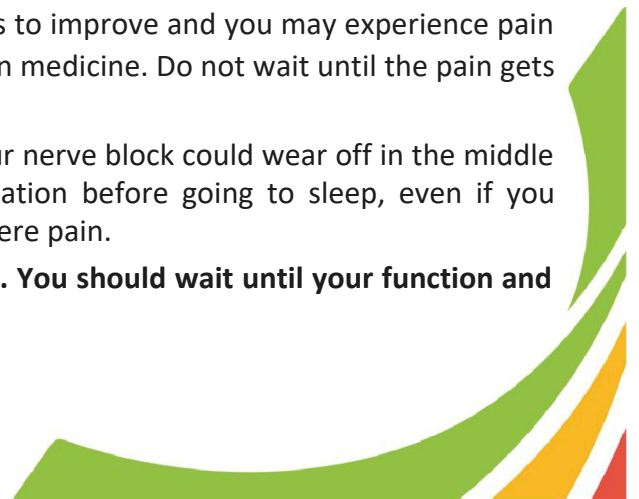
- Gait instruction with the use of the walking aid.
- Helping you return to the hobbies and activities that you enjoy.
- Gait training to ensure safety and to normalize pattern as weight bearing is allowed.
- Strengthen leg and thigh muscles.

Our **Physiotherapists** at **Footbridge** work closely with your **Surgeon** and are very familiar with the post-op rehabilitation process. Typically, formal Physiotherapy will begin after the x-ray shows the bones fused; if you'd like to do your Physiotherapy at Footbridge it can be booked at that time.

There is often benefit to doing one or two **preoperative Physiotherapy sessions** to prepare for your surgery; if you'd like to schedule an appointment you can do so online or by calling Footbridge.

### **NERVE BLOCK**

- A nerve block can last anywhere from a few hours to over 36 hours, but usually this is between 12-24hours.
- Once the nerve block begins to wear off the weakness starts to improve and you may experience pain or a tingling sensation. At that time consider taking your pain medicine. Do not wait until the pain gets strong to take the medication.
- If you still feel numb at bedtime on the night of surgery, your nerve block could wear off in the middle of the night. It is recommended to take your pain medication before going to sleep, even if you have no pain or discomfort so that you won't wake up in severe pain.
- **Do not use cold therapy if your nerve block is still in effect. You should wait until your function and normal sensation have returned.**



## **ANKLE ARTHRODESIS (FUSION) - POSTOPERATIVE INSTRUCTIONS**

### **DRIVING**

- You should not drive until you are fully weight-bearing and cleared by your doctor.
- Avoid driving if you still need to wear a walking boot.

### **RISKS and COMPLICATIONS**

Despite having a high success rate, complications can occur. Some complications may require follow-up operations.

- Risks associated with anesthesia
- Infection
- Wound-healing problems
- Non-union (failure of the bones to heal together)
- Mal-union (bones do not fuse in the intended position)
- New arthritis in nearby joints
- Permanent numbness
- Nerve, blood vessel damage
- Blood clots
- Persistent pain

It is common to have swelling and bruising around the wounds. The bruising changes colour over time from red to yellow or green.

Contact Footbridge Wound Care Resource line: 778-945-6756, Ext 8 if:

- Pain on your CALF, BACK OF KNEE, THIGH or GROIN.
- Increased swelling on the operated thigh, knee or leg.
- Body temperature above 38 Celsius/101 Fahrenheit.
- Increased warmth, redness, and swelling around the wound.
- Increased fluid leaking from the wound.

### **CALL 911 if:**

- You have trouble breathing.
- You have chest pain.
- Anyone noticed that you lost consciousness.

