

Ankle Fractures





The Department of Orthopaedics offers specialist medical and surgical treatments on musculoskeletal disorders, joint replacements, foot and ankle disorders, among other trauma injuries. Our consultants and surgeons work closely with sports medicine physicians, physiotherapists, podiatrists and other healthcare professionals to help patients return to their normal activities after surgery.

What is an ankle fracture?

An ankle fracture is a break in one or more of the bones that make up the ankle joint. It is most commonly caused by an inversion injury or 'going over' on the ankle. Ankle fractures are common injuries that occur especially in sports such as basketball, soccer and netball, and account for up to 80% of all injuries in these sports.¹

Complications from any type of ankle fracture will include:

- Bones healing in a poor position (mal-union)
- Continued pain
- Deep vein thrombosis or pulmonary embolus (rare^{2,3})
- Failure of the bones to heal (non-union)
- Future complications which may include arthritis of the ankle joint, causing persistent pain
- Nerve damage
- Stiffness
- Swelling

How is it diagnosed?

A fracture is diagnosed using a combination of consultation, examination and X-rays. Occasionally, X-rays will be repeated if initial X-rays were unable to show all the details of the injury.

Further investigations (such as a CT or MRI scan) may be requested by your doctor in more complex situations.

What are the treatment options?

The treatment prescribed to you will depend on the type and severity of your ankle fracture. It will be tailored to suit an individual. Possible treatments include:

Non-operative

If your fracture is stable and does not require an operation, a plaster cast is usually sufficient. Your doctor will determine whether an operation is required. Treatment usually lasts for a period of six weeks but may be longer depending on your fracture type, evidence of healing and pre-existing medical conditions (particularly diabetes).

Operative

If your fracture is unstable, surgery may be required to hold your bones in place. It may be accomplished by using a combination of plates and screws, the exact configuration will depend on your fracture type. Such plates and screws are not strong enough to support your body weight, and are used to hold the bones in the correct position until your fracture heals. You should not put any weight through your operated leg in the first six weeks after surgery. The duration could be longer depending on your fracture type, evidence of healing and other medical problems (particularly diabetes and smoking).

At times, an operation may be postponed if the swelling in an ankle is too severe on admission.



Will I need crutches?

In most cases, crutches or some form of walking aid is needed. If mobility is difficult, a physiotherapist will advise you on ways to ambulate and climb the stairs. In stable injuries, a doctor may allow you to put weight through your leg as tolerated. In unstable injuries, a doctor will decide whether you should put any weight through your ankle. Strict non-weight bearing means you should either hop on the other leg or use a wheelchair.



After surgery

Will it hurt?

It is normal to feel pain around the ankle until it heals. Painkillers will be prescribed to you and our medical staff will advise you on its use. Please keep your leg elevated to reduce any pain and discomfort you feel.

What is my likely recovery rate?

Recovery will depend on the type of fracture you had. It is unlikely that you can return to normal activities before three months. Some patients may not regain their pre-injury level of activity. Your doctor and physiotherapist will assess and advise you on when to return to sporting activities.

Will I be able to bear weight on my ankle?

Different types of ankle fractures and treatments have different requirements. Your surgeon (or his team) will advise you on when you can start bearing weight.

What can I do to improve my recovery?

- **Elevation:** It is important to elevate your ankle in the first two weeks of recovery. As a general rule you should elevate it above the level of your waist for 45 minutes every hour during the day and at night.

- **Stop smoking:** Smoking increases complications, such as failure of the bone to heal, wound problems and infection.
- **Plaster and wound care:** It is important to keep your plaster and wound dry. Use a waterproof bag when you need to shower.

When can I drive?

You are not advised to drive when you are in a cast or supportive boot as you must be fully mobile and comfortable to make an emergency stop without worrying if it might hurt to do so. A right ankle fracture will affect your ability to drive for a longer period than a left ankle fracture.

Will the metalwork need to be removed?

As a general rule, the metalwork will not need to be removed. Occasionally, a long screw is required, that runs between the tibia and fibula (lower leg bones). These are usually removed after three months. Occasionally the metalwork can be felt under the skin and cause irritation. If you would like it removed, you may do so approximately six months after surgery.

Possible risks and complications

- Bleeding
- Further surgery
- Nerve problems including numbness around the wound and occasionally the foot. This will subside with time
- Wound problems such as infection and delay in wound healing

Follow-up appointments

You will usually be reviewed at our Outpatient Clinic two weeks after surgery. Your stitches will be removed and you will be seen again six weeks and three months later.



The information in this brochure is not exhaustive. If you would like to know more, please approach any of our friendly staff.

For further information:
www.footEducation.com

- References:**
1. **Fong DT, Hong Y, Chan LK, Yung PS, Chan KM.** A systematic review on ankle injury and ankle sprain in sports. *Sports Med* 2007;37-1:73-94.
 2. **Mizel MS, Temple HT, Michelson JD, Alvarez RG, Clanton TO, Frey CC, Gegenheimer AP, Hurwitz SR, Lutter LD, Mankey MG, Mann RA, Miller RA, Richardson EG, Schon LC, Thompson FM, Yodlowski ML.** Thromboembolism after foot and ankle surgery. A multicenter study. *Clin Orthop Relat Res* 1998-348:180-5.
 3. **Solis G, Saxby T.** Incidence of DVT following surgery of the foot and ankle. *Foot Ankle Int* 2002; 23-5:411-4.

For more information

Ng Teng Fong General Hospital and Jurong Community Hospital

1 Jurong East St 21, Singapore 609606

www.ntfgh.com.sg | www.jch.com.sg

Clinic opening hours

Monday – Friday: 8.30am – 5.30pm

Saturday: 8.30am – 12.30pm (Selected clinics only*)

Dental Clinic: Monday – Thursday: 8.00am – 5.30pm, Friday: 8.00am – 5.00pm

**Please refer to our websites for more details.*

General enquiries & appointments

General enquiries line: 6908 2222 (24-hr)

Fax: 6716 5500 | Email: contactus@nuhs.edu.sg

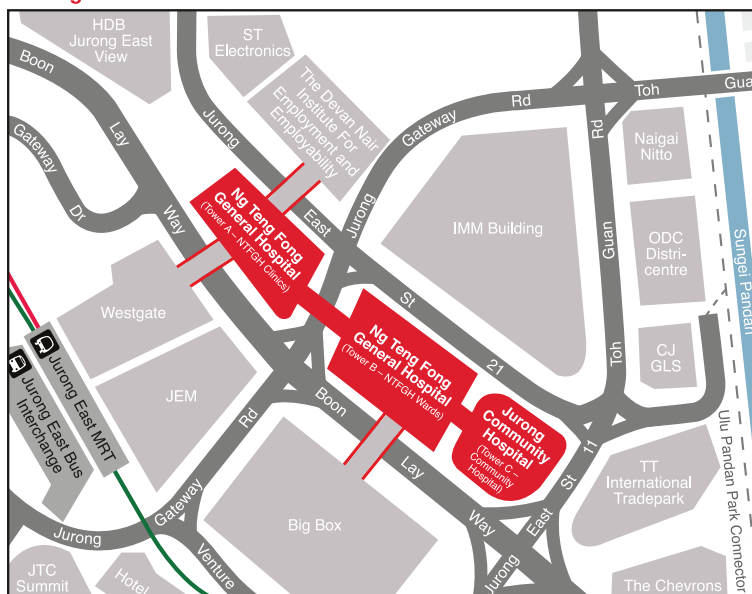
Appointment line: 6908 2222 (Monday – Friday: 8.00am – 5.30pm, Saturday: 8.00am – 12.30pm)

Fax: 6716 2200 | Email: appointment@nuhs.edu.sg

Dental appointment line: 6716 2233 (Monday – Friday: 8.00am – 5.30pm)

Fax: 6716 2200 | Email: JHCampus_Dental@nuhs.edu.sg

Getting there



By train

Alight at Jurong East MRT Station

By bus

Jurong East Bus Interchange

41, 49, 51, 52, 66, 66B, 78, 78A, 79, 79A, 97, 97E, 98, 98M, 105, 143, 143M, 160, 160A, 160M, 183, 183B, 197, 333, 334, 335, 506

Along Boon Lay Way

49, 99, 333, Private bus service 625, 990

Disclaimer:

The information in this brochure is meant for educational purposes and should not be used as a substitute for medical diagnosis or treatment. Please seek your doctor's advice before starting any treatment or if you have any questions related to your health, physical fitness or medical condition. Information is accurate at the time of printing.