



Find A Doctor	Patient Care	About Mount Sinai	Education	For Health Professionals
---------------	--------------	-------------------	-----------	--------------------------

Home > Patient Care > Health Library > Treatments & Procedures > [Open Reduction And Internal Fixation Surgery](#)

Patient Care

REVIEWED
By Chris Tighe at 10:33 am, Aug 08, 2016

Open Reduction And Internal Fixation Surgery

(ORIF)

[Definition](#) | [Reasons for Procedure](#) | [Possible Complications](#) | [What to Expect](#) | [Call Your Doctor](#)

Definition

An open reduction and internal fixation (ORIF) is a type of surgery used to fix broken bones. This is a two-part surgery. First, the broken bone is *reduced* or put back into place. Next, an *internal fixation* device is placed on the bone. This can be done with screws, plates, rods, or pins that are used to hold the broken bone together.

Reasons for Procedure

This surgery is done to repair fractures that would not heal correctly with casting or splinting alone.

Possible Complications

Problems from the procedure are rare, but all procedures have some risk. Your doctor will review potential problems, like:

- Infection
- Bleeding
- Reaction to anesthesia
- Blood clots

Before your procedure, talk to your doctor about ways to manage factors that may increase your risk of complications such as:

- [Smoking](#)
- Drinking
- Chronic disease such as diabetes or obesity

Your risk of complications may be increased if you have a history of blood clots.

What to Expect

Prior to Procedure

- Since broken bones are usually caused by [trauma](#) or an accident, an ORIF surgery is typically an emergency procedure. Before your surgery, you may have:
 - Physical exam—to check your blood circulation and nerves affected by the broken bone
 - [X-ray](#), [CT scan](#), or [MRI scan](#) —to evaluate the broken bone and surrounding structures
 - Blood tests
 - [Tetanus shot](#) —depending on the type of fracture and if your immunization is not current
- An anesthesiologist will talk to you about anesthesia for your surgery.
- If your surgery is urgent, you may not have time to fast beforehand; make sure to tell your doctor and the anesthesiologist when you last ate and drank.
- If your surgery is scheduled, you may be asked to stop taking certain medications up to a week in advance.

Anesthesia

[General anesthesia](#) may be used. It will block any pain and keep you asleep during the surgery. In some cases, a spinal anesthetic, or more rarely a local block, may be used to numb only the area where the surgery will be done. This will depend on where the fracture is located and the time it will take to perform the procedure.

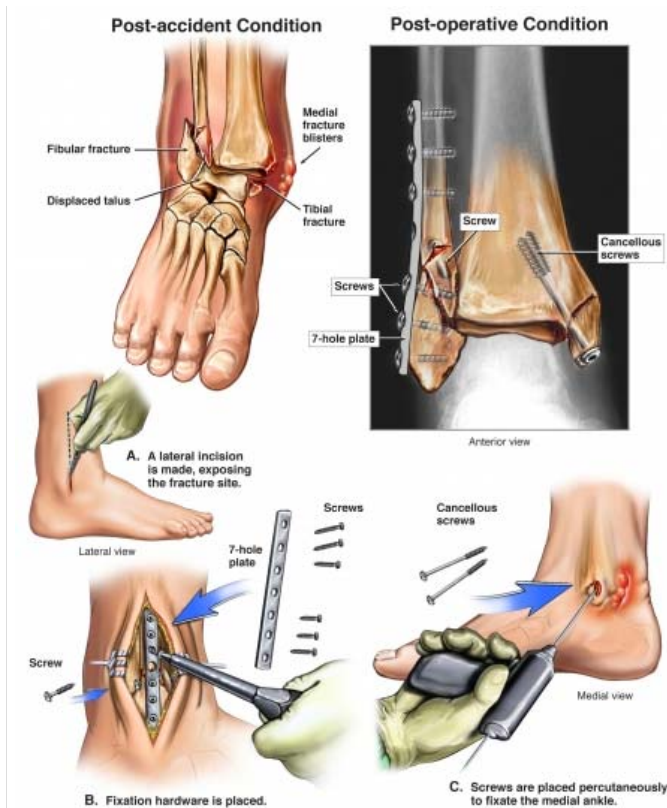
Description of Procedure

Each ORIF surgery differs based on the location and type of fracture. In general, a breathing tube may be placed to help you breathe while you are asleep. Then, the surgeon will wash your skin with an antiseptic and make an incision. Next, the broken bone will be put back into place. Next, a plate with screws, a pin, or a rod that goes through the bone will be attached to the bone to hold the broken parts together. The incision will be closed with staples or stitches. A dressing and/or cast will then be applied.

Open Reduction and Internal Fixation Surgery of the Ankle

FIND A DOCTOR





Copyright © Nucleus Medical Media, Inc.

Immediately After Procedure

After your surgery, you will be taken to the recovery room for observation. Your blood pressure and breathing will be monitored. Your pulse and the nerves close to the broken bone will also be checked.

How Long Will It Take?

An ORIF surgery can take several hours depending on the fracture and the bone involved.

How Much Will It Hurt?

Anesthesia prevents pain during surgery. Pain and discomfort after the surgery can be managed with medications.

Average Hospital Stay

This procedure is done in a hospital setting. Your length of stay will depend on your surgery. You may be in the hospital for 1-7 days.

Post-procedure Care

At the Hospital

- After surgery, you will be given nutrition through an IV until you are able to eat and drink.
- You will be asked to get out of bed and walk 2-3 times a day to prevent complications.
- You will begin physical therapy to learn how to move. You will also be shown exercises to regain muscle strength and range of motion.
- You will learn how to properly use any assisted devices, such as a wheelchair or crutches.
- You will be asked to cough and breathe deeply to prevent lung problems.
- Your affected limb will be elevated above your heart to decrease swelling.

During your stay, the hospital staff will take steps to reduce your chance of infection such as:

- Washing their hands
- Wearing gloves or masks
- Keeping your incisions covered

There are also steps you can take to reduce your chances of infection such as:

- Washing your hands often and reminding visitors and healthcare providers to do the same
- Reminding your healthcare providers to wear gloves or masks
- Not allowing others to touch your incisions

At Home

Before you leave the hospital, you will need to arrange for a ride home. Arrange to get help at home from friends and family until you can manage on your own.

When you return home, do the following to help ensure a smooth recovery:

- Take care of the bandage or dressing to prevent infection.
- Check your affected limb often for sense of feeling.
- Get up and walk several times a day.
- Continue to do exercises prescribed by your physical therapist.

Call Your Doctor

It is important for you to monitor your recovery after you leave the hospital. Alert your doctor to any problems right away. If any of the following occur, call your doctor:

- Signs of infection, including fever and chills
- Redness, swelling, increasing pain in the affected limb
- A lot of bleeding or any discharge from the incision site
- Loss of feeling in the affected limb
- Swelling or pain in the muscles around the broken bone
- Pain cannot be controlled with the medications you were given
- Cough, shortness of breath, or chest pain
- Joint pain, fatigue, stiffness, rash, or other new symptoms

If you think you have an emergency, call for medical help right away.

RESOURCES:

American Academy of Physical Medicine and Rehabilitation

<http://www.aapmr.org>

National Institute of Arthritis and Musculoskeletal and Skin Diseases

<http://www.niams.nih.gov>

CANADIAN RESOURCES:

The Arthritis Society

<http://www.arthritis.ca>

Canadian Orthopaedic Association

<http://www.coa-aco.org>

References:

Fractures (broken bones). Ortho Info—American Academy of Orthopaedic Surgeons website. Available at: <http://orthoinfo.aaos.org/topic.cfm?topic=A00139>. Updated October 2012. Accessed August 21, 2014.

Total hip arthroplasty. EBSCO DynaMed website. Available at: <http://www.ebscohost.com/dynamed>. Updated August 20, 2014. Accessed August 21, 2014.

6/3/2011 DynaMed's Systematic Literature Surveillance <http://www.ebscohost.com/dynamed>: Mills E, et al. Smoking cessation reduces postoperative complications: a systematic review and meta-analysis. Am J Med. 2011;124(2):144-154.e8.

Last reviewed August 2015 by Warren A. Bodine, DO, CAQSM

Please be aware that this information is provided to supplement the care provided by your physician. It is neither intended nor implied to be a substitute for professional medical advice. CALL YOUR HEALTHCARE PROVIDER IMMEDIATELY IF YOU THINK YOU MAY HAVE A MEDICAL EMERGENCY. Always seek the advice of your physician or other qualified health provider prior to starting any new treatment or with any questions you may have regarding a medical condition.

Copyright © 2016 EBSCO Publishing. All rights reserved.