

Fractures

Introduction

A fracture happens when any one of the bones in the body breaks.

This reference summary will explain the treatments for fractures in the health care facility setting. It will also teach you what to watch for in case a cast is needed.

Treatment

Some fractures are very severe and need surgery to reset them. Others can be repaired without surgery.

If you break a bone in the arm or leg, you may need to keep it in one position and not allow it to move to promote healing. This is known as immobilization.

To help with this immobilization, the arm or leg is put in a splint or cast. If you have broken your clavicle, or collar bone, you may have the arm and shoulder on the affected side put into a sling to immobilize the area.



Splints consist of 2 parts.

- 1. A rigid plastic-like material helps the arm or leg stay in the required position.
- 2. A bandage keeps it in place. These are easy to take off.

Knee immobilizers, wrist gauntlets and pneumatic braces, which use air like a tire to keep the limb in place, are all variations of splints.

Casts are sturdier than splints. They are made of plaster or a synthetic material. Your health care provider should take your cast off, using special instruments.



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Expectations and Precautions

To help improve your recovery, you need to rest the injured arm or leg and not use it in any kind of strenuous activity.

You need to keep the arm or leg above heart level to decrease the chances of swelling. You can do this by resting the limb somewhat above your body when you are lying or sitting down.

Ice in a plastic bag applied on the injured area may help decrease the pain, swelling and inflammation.

Keep the cast or splint dry by covering it with a plastic bag while taking baths and showers. You can use a hair dryer on a low, cool setting to dry the cast if it gets wet.

Do not insert foreign objects between the cast and your skin to try to relieve an itch. This may injure your skin and lead to infections. You may want to use a hair dryer set on cool to relieve the itch.

Ask your health care provider whether you are allowed to put any weight on your injured leg. If you are not allowed to bear weight on the leg or cast, you will be given crutches. To avoid damaging the nerves of the arm, which may cause numbness in your hands while using the crutches, rest your weight on the hand supports rather than on your armpits.

Because patients cannot use their arm or leg when it is immobilized, the muscles become smaller because of the lack of exercise. This is called atrophy. After the cast or splint is taken off and you start physical therapy or exercise, the muscles usually recover.

For the same reason, the immobilized joint becomes stiff. This improves with physical therapy.

Crutches

Risks and Complications

Casts and splints are very safe. But there are a few possible risks and complications. You need to know about them to help your health care provider detect them early in case they happen.

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The cast or splint may be too tight and press on the blood vessels and nerves of the

arm or leg. This can result in nerve damage, paralysis and a permanent decrease in sensation. It is very important to inform your health care provider of any numbness or tingling sensation in the arm or leg and if you feel that your fingers or toes are not moving well.

If the circulation is cut off to the arm or leg, it can become very painful and you could lose the limb as a result. If your nails are blue or if they stay pale after you press them, the circulation may be affected and you need to inform your health care provider. Over time, you may feel that the cast is becoming loose and that you are able to move the immobilized joint. This



usually happens because the underlying muscles become smaller or because the cast has gotten wet or has otherwise been damaged. In this case, you should inform your health care provider in case you need to have the cast replaced.

Blood clots in the legs can happen. This usually shows up a few days after the injury. It causes the leg to swell and hurt a lot. These blood clots can be dislodged from the legs and go to the lungs, where they will cause shortness of breath, chest pain and possibly death. Sometimes the shortness of breath can happen without warning. It is extremely important to let your health care providers know if any of these symptoms happen.

Getting out of bed shortly after the injury may help decrease the risks of blood clots in the legs.

Summary

Arms and legs are similar in the way the bones are structured. Fractures can happen when any of the bones break.

When a fracture happens, you should immobilize the injury with a splint or a cast, depending on the severity of the injury. Splints and casts are very safe and useful.

As you have seen, there are some rare but potentially disastrous complications. Taking good care of your splint and cast and informing your health care provider about possible complications will help your arm or leg recover safely.

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