

# Casting and Splinting

## What are casts and splints?

Casts and splints are hard wraps used to support and protect injured bones, ligaments, tendons, and other tissues. They help broken bones heal by keeping the broken ends together and as straight as possible. Casts and splints also help with pain and swelling and protect the injured area from more harm.

## What is the difference between a cast and a splint?

A cast wraps all the way around an injury and can only be removed in the doctor's office. All casts are custom-made with fiberglass or plaster.

A splint is like a "half cast." The hard part of a splint does not wrap all the way around the injured area. It is held in place by an elastic bandage or other material. Unlike casts, splints can be easily removed or adjusted. Many splints are custom-made from fiberglass or plaster. Others are premade ("off-the-shelf") and come in lots of shapes and sizes for different injuries.

## What are they made of?

The inside layer may be a "sock-like" material called a stockinette and is used more often with casts than with splints. Padding is also used to protect the skin and tissues under it and to make casts and splints more comfortable. Padding can be made from cotton or a man-made material.

The outer layer is usually plaster or fiberglass. Your doctor will pick the best materials for you. Fiberglass and plaster are put

on while they are wet. Fiberglass dries in 15 to 30 minutes, but plaster can take longer.

If you are walking on the cast or splint, the drying time will be longer. On average, plaster will take about a day and a half before it's hard enough to support your weight, but fiberglass will take about 20 to 30 minutes.

## How long does a cast or splint stay on?

A splint usually stays on for several days to weeks. If the injured area is very swollen, a splint may be used first to allow for that swelling. If you need a cast, your doctor will remove the splint and apply a cast. Casts that are kept in good condition can stay on for several weeks. Your doctor will tell you how long your cast will need to stay on.

Splints and casts often need to be adjusted in the first few days if your injury is swollen. As the swelling goes down, a cast may become too loose. If swelling increases, the splint or cast may become too tight.

## What if the pain gets worse?

Some people have mild pain and swelling if they don't rest the injured area enough. To avoid this, it is important to do the following:

- Keep the injured area above the level of your heart (for instance, prop it up with pillows).
- Wiggle your fingers or toes while resting.
- Apply ice, if needed. It can be used for 15 to 30 minutes over a cast or splint as long as the ice doesn't get the splint or cast wet or touch the skin for too long.
- Talk to your doctor before taking pain medicine.

## Casting and Splinting *(continued)*

### When should I call my doctor?

Call your doctor right away if you have:

- Increased pain
- Numbness, tingling, burning, or stinging on or near the injured area
- Circulation problems (if your skin, nails, fingers, or toes become discolored, pale, blue, gray, or cold to the touch, or if you have trouble moving your fingers or toes)
- Bleeding, pus, drainage, or bad smells coming from the cast
- A wet, broken, or damaged cast or splint

Your doctor may need to adjust, remove, or change your splint or cast. Call your doctor right away if you have any of these symptoms.

### What should I do when I bathe?

Be sure to keep your cast or splint dry, especially during baths and showers. Casts and splints made from plaster can break if they get wet, and your skin can break down. Fiberglass casts are water-resistant, but the lining will absorb water. So if the lining gets wet, the skin underneath may become irritated or infected.

When you bathe, wrap two layers of plastic over the cast or splint and make sure a plastic bag is tightly sealed over it. This will make it *water-resistant*, but not *waterproof*, so do not put the cast or splint directly in water. Moisture can damage the outside of the cast or splint, but, more importantly, a wet cast can irritate the skin or cause infection.

### What else do I need to know?

Take good care of your cast or splint to help your injury heal properly. Also remember:

- Never stick objects inside a cast or splint. They can get stuck, break off, or hurt your skin.
- Don't get dirt or sand inside a cast or splint.
- Don't apply powders or deodorants inside a cast. For severe itching, call your doctor.
- Never break off pieces of your cast or splint or try to adjust it yourself. If it needs to be adjusted, call your doctor.
- Check the cast and the exposed skin daily. If you notice damage to the cast or any injury, call your doctor.

### How is a cast taken off?

Your doctor will use a special cast saw with a blade that vibrates but does not spin. It cuts through the outer layer, but not the lining.

Never remove a cast yourself. Using any type of home saw or cutting materials could cause serious injury to your skin, blood vessels, and injured limb.

### Where can I get more information?

American Academy of Family Physicians

Web site: <http://familydoctor.org>

American Academy of Orthopaedic Surgeons

Web site: <http://orthoinfo.aaos.org/topic.cfm?topic=A00095>

January 2009

---

**This handout is provided to you by your family doctor and the American Academy of Family Physicians. Other health-related information is available from the AAFP online at <http://familydoctor.org>.**

This information provides a general overview and may not apply to everyone. Talk to your family doctor to find out if this information applies to you and to get more information on this subject. Copyright © 2009 American Academy of Family Physicians. Individuals may photocopy this material for their own personal reference, and physicians may photocopy for use with their own patients. Written permission is required for all other uses, including electronic uses.