

Casts and Splints— Instructions for Patients

What is a cast?

A cast is a hard bandage wrapped around your arm or leg to support and protect an injury such as a broken bone, a sprain, or the site of an operation. The cast holds the injured area still and straight, protecting it during healing, and helps to relieve pain. A splint is a firm support, like a cast, but the hard part does not wrap all the way around your injured limb, allowing some room for swelling.

Casts and splints usually include padding or cushioning to protect the skin, the bones, and any nerves that are close to the surface. You must leave this padding where it is so the cast continues to protect you. Casts and splints should only ever be taken off or changed when advised by your doctor.

Your doctor has recommended a cast or splint as part of your treatment. But since each person and their medical problems are unique, the following information provides general instructions only on how best to look after your injury and your cast. However, if at any time you develop any of the warning signs described, or have any questions or worries, contact your doctor immediately.

Warning signs

You should contact your doctor immediately if you develop any of the following warning signs:

- Cast/splint is too tight
- Fingers or toes are swollen (a little is normal; a lot is bad)
- Numbness (loss of feeling) in fingers or toes
- Can't move fingers or toes
- Pain keeps getting worse
- "Hot spot" (burning and/or rubbing) under the cast.

Don't leave without written follow-up instructions from your doctor, including telephone number, address, and next appointment date.



How to prevent swelling

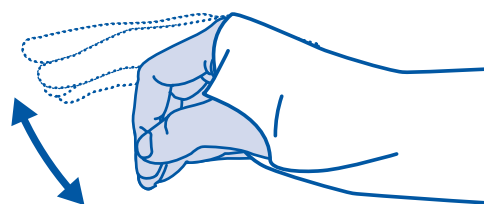
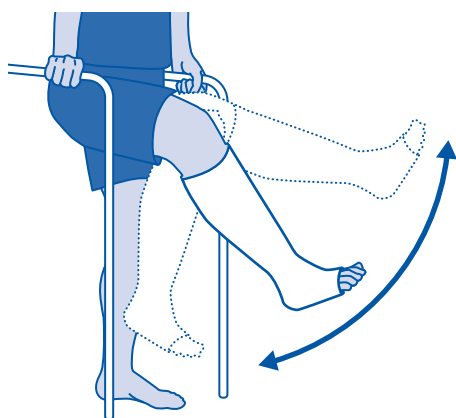
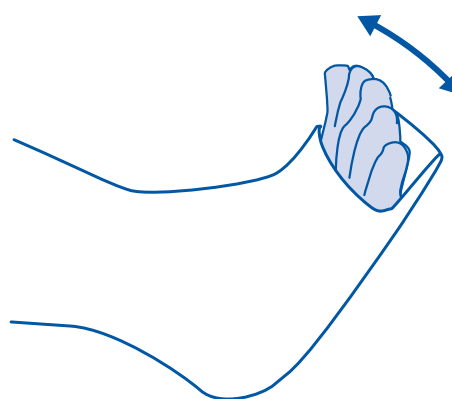
Your limbs usually swell following a serious injury. To reduce the swelling, rest and elevate the injured area above the level of your heart. An injured foot or ankle should be up on pillows while you are lying or sitting partially upright. Once elevated, gentle finger or toe motion is alright, but vigorous use may irritate the injured area, increasing swelling and pain.

Apply ice to the injured area using a waterproof bag. This helps relieve pain and swelling, even through the cast or bandage.



How to prevent stiffness

As soon as you can, completely bend and straighten the fingers/toes of your injured limb for a few seconds every hour while you are awake. Gentle stretching of the joints above the cast (elbow, shoulder, knee, hip) is also a good idea in most cases. Even if not injured, your shoulder especially can become stiff and uncomfortable if not used normally for long periods of time. If needed, use your other hand to help move limbs and joints through a full range of motion.



Walking on your cast

Some leg casts allow the patient to put weight on their leg or even to walk while wearing the cast (once it has completely dried). Walking casts may have an attached heel for this purpose, or be provided with a removable cast shoe. If your cast is not intended for walking you must obtain crutches or a walking frame, and learn how to use these safely. Check with your doctor for specific instructions.

It is not safe to drive a motor vehicle, or ride a bicycle, with a cast on your arm or leg!



Taking care of your cast

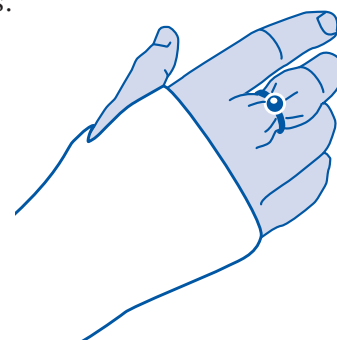
While casts are made of strong material they can still be easily damaged, reducing their effectiveness. Follow these simple guidelines to keep your cast working properly.

- Keep your cast dry: Plaster casts “melt” if they get wet, and your skin can be harmed from wet padding. Always use a waterproof cover or heavy plastic bag when showering (no swimming or baths), and use a hair dryer set to a low temperature if it becomes damp. Contact your doctor if the cast becomes significantly wet.



- Keep your cast clean: Avoid dirty or dusty places, beaches, fields, etc, and avoid activities that might soil your cast.
- Don't overheat your cast: If your cast is near a heater or fireplace it can become overheated and burn you.
- Don't put anything inside your cast: Sometimes your skin itches inside the cast. This can be relieved by applying an ice pack, or placing a hair dryer or vacuum cleaner against one of the ends of the cast to draw air through it and across your skin.

- Is my cast too tight? Casts should feel snug, but not too tight. Tightness develops from swelling inside the cast. Elevate and rest the limb. Eventually, the swelling decreases. If tightness does not improve, call your doctor promptly.
- Is my cast too loose? Sometimes, as healing progresses, the cast begins to feel loose. This can usually be checked by your doctor during a routine follow-up, but if the cast slides significantly up or down your limb it should be checked promptly.
- What if my cast gets soft or breaks? This can happen with any type of cast resulting in a cast that does not protect your injury well, or that irritates your skin, perhaps causing blisters or sores. Visit your doctor to get the cast repaired or replaced. If it's on your leg, stop walking on the cast and use crutches.
- How about jewelry and nail polish? Immediately after an injury, remove any rings, bracelets, and body piercings. Because of swelling, they can become too tight. Your doctor may ask you to remove nail polish or artificial nails.



Cast removal and recovery

Your cast will be removed with either scissors or a special cast saw that vibrates its way through the cast. Even though your injury has started to heal, the joints inside will become stiff, and muscles have become weaker. Skin and hair growth may change under the cast, but these usually resolve after cast removal. However, muscles and joints require several months of exercise and use before they have fully recovered.

Never remove your cast by yourself. You may injure yourself or disturb the healing process.

These instructions have been provided by orthopedic specialists with many years' experience treating patients with casts and splints. Following these simple instructions will help you to achieve the best possible result for your injury, and will help you get back to work and play as quickly and as safely as possible.

Since every patient and every injury is unique, you must obtain and follow your own doctor's advice.



The AO Foundation is a medically guided nonprofit organization led by an international group of surgeons specialized in the treatment of trauma and disorders of the musculoskeletal system.

Hazards

Great care has been taken to maintain the accuracy of the information contained in this publication. However, the publisher, and/or the distributor, and/or the editors, and/or the authors cannot be held responsible for errors or any consequences arising from the use of the information contained in this publication. Contributions published under the name of individual authors are statements and opinions solely of said authors and not of the publisher, and/or the distributor, and/or the AO Group. The products, procedures, and therapies described in this work are hazardous and are therefore only to be applied by certified and trained medical professionals in environments specially designed for such procedures. No suggested test or procedure should be carried out unless, in the user's professional judgment, its risk is justified. Whoever applies products, procedures, and therapies shown or described in this work will do this at their own risk. Because of rapid advances in the medical sciences, AO recommends that independent verification of diagnosis, therapies, drugs, dosages, and operation methods should be made before any action is taken. Although all advertising material which may be inserted into the work is expected to conform to ethical (medical) standards, inclusion in this publication does not constitute a guarantee or endorsement by the publisher regarding quality or value of such product or of the claims made of it by its manufacturer.

Legal restrictions

This work was produced by AO Foundation, Switzerland. All rights reserved. This publication, including all parts thereof, is legally protected by copyright. Any use, exploitation or commercialization outside the narrow limits set forth by copyright legislation and the restrictions on use laid out below, without the publisher's consent, is illegal and liable to prosecution. This applies in particular to photostat reproduction, copying, scanning or duplication of any kind, translation, preparation of microfilms, electronic data processing, and storage such as making this publication available on Intranet or Internet. Some of the products, names, instruments, treatments, logos, designs, etc. referred to in this publication are also protected by patents and trademarks or by other intellectual property protection laws (eg, "AO", "ASIF", "AO/ASIF", TRIANGLE/GLOBE Logo" are registered trademarks) even though specific reference to this fact is not always made in the text. Therefore, the appearance of a name, instrument, etc without designation as proprietary is not to be construed as a representation by the publisher that it is in the public domain. Restrictions on use: The rightful owner of an authorized copy of this work may use it for educational and research purposes only. Single images or illustrations may be copied for research or educational purposes only. The images or illustrations may not be altered in any way and need to carry the following statement of origin "Copyright by AO Foundation, Switzerland".