Corns and Calluses

Corns and calluses on the feet are thickened areas of skin that can become painful. They are caused by excessive pressure or rubbing (friction) on the skin. The common cause is wearing poorly fitting shoes. A person who is qualified to diagnose and treat foot disorders (a podiatrist) can cut away (pare) corns and calluses and can advise on footwear, shoe insoles and padding to prevent recurrences.

What are corns and calluses?

Corns
A corn is a small area of skin which has become thickened due to pressure on it. A corn is roughly round in shape. Corns press into the deeper layers of skin and can be painful.

- **Hard corns** commonly occur on the top of the smaller toes or on the outer side of the little toe. These are the areas where poorly fitted shoes tend to rub most.
- **Soft corns** sometimes form in between the toes, most commonly between the fourth and fifth toes. These are softer because the sweat between the toes keeps them moist. Soft corns can sometimes become infected.

Calluses
A callus is larger and broader than a corn and has a less well-defined edge. These tend to form on the underside of your foot (the sole). They commonly form over the bony area just underneath your toes. This area takes much of your weight when you walk. They are usually painless but can become painful.

What causes corns and calluses?
The small bones of the toes and feet are broader and more lumpy near to the small joints of the toes. If there is extra rubbing (friction) or pressure on the skin overlying a small rough area of bone, this will cause the skin to thicken. This may lead to corns or calluses forming.
The common causes of rubbing and pressure are tight or poorly fitting shoes which tend to cause corns on the top of the toes and side of the little toe. Also, too much walking or running which tends to cause calluses on the sole of the feet. So if you do sports or activities that involve repeated pressure on your feet then this will increase your risk of developing a callus.

Corns and calluses are more likely to develop if you have very prominent bony toes, thin skin, or any deformities of the toes or feet which cause the skin to rub more easily inside shoes. People with bunions are more likely to develop corns and calluses. See the separate leaflet called Bunions for more information.

What are the treatments for corns and calluses?

If you develop a painful corn or callus it is best to obtain expert advice from a person qualified to diagnose and treat foot disorders (a podiatrist - previously called a chiropodist). You should not cut corns yourself, especially if you are elderly or have diabetes.

Treatments such as corn plasters will reduce the pressure on your corn but will not actually treat the corn.

Advice and treatments usually considered include the following:

Trimming (paring down)
The thickened skin of a corn or callus can be pared down by a podiatrist by using a scalpel blade. The pain is usually much reduced as the corn or callus is pared down and the pressure on the underlying tissues eased. Sometimes, repeated or regular trimming sessions are needed. Once a corn or callus has been pared down, it may not return if you use good footwear.

If the skin seems to be thickening up again, a recurrence may be prevented by rubbing down the thickening skin with a pumice stone or emery paper once a week. Many people can do this themselves. It is best to soak your foot in warm water for 20 minutes to soften the thick skin before using a pumice stone or emery paper. A moisturising cream used regularly on a trimmed corn or callus will keep the skin softened and easier to rub down.

Chemical treatment
There are different types of medicated products which work by chemically paring down the thickened, dead skin on corns and calluses. These usually contain salicylic acid, which is also present in many wart-removal products.

Salicylic acid is a keratolytic, which means it dissolves the protein (keratin) that makes up most of both the corn and the thick layer of dead skin which usually tops it. It is important to use these products as directed in the package directions; these products are gentle and safe for most people. Salicylic acid treatments are available in different forms including drops, pads and plasters.

All these treatments will turn the top of your skin white and then you will be able trim or peel away the dead tissue. This results in the corn sticking out less, which will make it less painful.

Although these products can work well, they should not be used if you have diabetes or poor circulation. This is because your skin is less likely to heal well after using salicylic acid and there is a risk that an ulcer may develop.

Shoes and footwear
Tight or poorly fitting shoes are thought to be the main cause of most corns and calluses. Sometimes a rough seam or stitching in a shoe may rub enough to cause a corn. The aim is to wear shoes that reduce pressure and rubbing on the toes and forefeet. Shoes should have plenty of room for the toes and have soft uppers and low heels. In addition, extra width is needed if corns develop on the outer side of the little toe. Extra height is needed if corns develop on the top of abnormal toes such as ‘hammer’ or ‘claw’ toes.

Correcting poor footwear will reduce any rubbing or friction on your skin. In many cases, a corn or callus will go away if rubbing or pressure is stopped with improved footwear. If you have had a corn or callus pared away, a recurrence will usually be prevented by wearing good footwear. If you are able, going barefoot when not outdoors will also help.

Some people with abnormalities of their feet or toes will need special shoes to prevent rubbing. A podiatrist can advise you about this.

Footpads and toe protection
Depending on the site of a corn or callus, a cushioning pad or shoe insole may be of benefit. For example, for a callus under the foot, a soft shoe inlay may cushion the skin and help the callus to heal. If there is a corn between your toes, a special sleeve worn around your toe may ease the pressure. A special toe splint may also help to keep your toes apart to allow a corn between toes to heal. A podiatrist will be able to advise you on any appropriate padding, insoles or appliances you may need.

Surgery
If you have a foot or toe abnormality causing recurring problems, an operation may be advised if all else fails. For example, an operation may be needed to straighten a deformed toe, or to cut out a part of a bone that is sticking out from a toe and causing problems. If you need an operation then you will be referred to a surgeon who will be able to discuss this with you in more detail.

Infection
Occasionally corns or calluses can become infected. If this happens then your skin around the corn (or callus) will become red and sore. Your doctor will be able to prescribe medicines called antibiotics if this happens.
Further reading & references


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<th>Author: Dr Louise Newson</th>
<th>Peer Reviewer: Dr Helen Huins</th>
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<tr>
<td>Document ID: 4378 (v40)</td>
<td>Last Checked: 15/04/2016</td>
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<td>Next Review: 15/04/2019</td>
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