

Treatment of Pressure and Rub Blisters

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Blister caused by the rubbing of badly fitting or poorly manufactured shoes can be a real problem for hikers, athletes and casual walkers. The issue is that unless the situation is drastically altered (eg. stop walking, change footwear etc) the blister will continue to grow in size until it bursts, exposing raw and painful flesh.

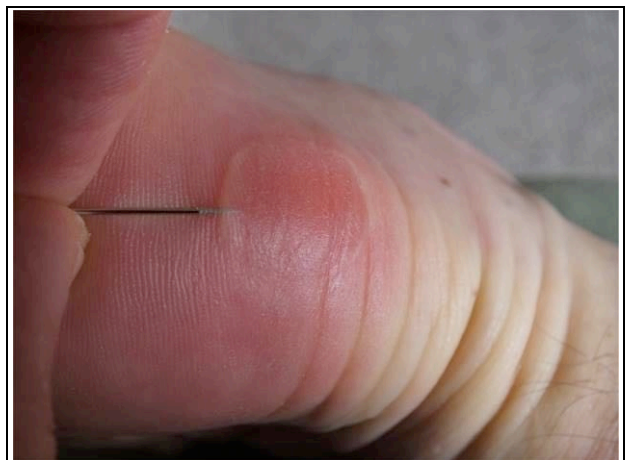
The basic first aid books recommend not bursting but padding to protect the blister. This option may be viable for people in the situation where they can stop the activity and rest, after changing into appropriate loose fitting footwear. However, for people who need to continue the activity such as hikers (particularly in remote locations), applying a pad over the blister creates a large bulge, which continues to aggravate and press on the blister inside the shoe. The extra pressure causes the trapped blister fluid to continue pushing outward between the skin layers to increase the blister size and pressure. If the blister then burst the loose skin rubs up and down on raw skin, which is open to infection.

I propose here a treatment for people who need to continue doing activities without being laid up with blisters, which can take weeks to heal. Obvious prevention is better than cure, however if a person does have a blister or tender spot, then catching it at the earliest stage is the idea situation. No doubt there will be some critics of the treatment I am about to describe, however, I personally know that this treatment has worked successfully for myself and acquaintances on many occasions.

The treatment requires a sterile needle, roll of strong Leukoplast (5cm wide) and to sterilise the area around the blister. The procedure involves pushing a thin needle beneath several layers of skin until the tip protrudes into the blister fluid, but does not break the outer skin of the blister. The location of the hole is critical to prevent the blister skin splitting open. Skin on the feet and hands is a bit like timber in that it has a grain (dermis and epidermis friction ridges) and will split along the ridges if put under enough stress. By carefully studying the skin's friction ridges around the blister, pick an entry point for the needle about 3 to 4mm out from the blister (on the good skin) and at right-angles to the friction ridges. Slide the needle under several layers of skin and up into the blister. When the needle point is seen inside the fluid sack, withdraw the needle and slowly squeeze the fluid out. In most cases there should not be any pain when inserting the needle as there is no need to go exceptionally deep into the skin.



Blister Formed



Sterilised needle inserted in good skin and up into blister fluid sack without breaking damaged blister skin.



Needle is withdrawn and first drop of fluid escapes

If the hole becomes clogged before it is completely drained, insert the needle back into the same hole and repeat the process. Once drained, dry the skin and firmly cover the blister with a large patch of Leukoplast. The Leukoplast must be the flexible type that can conform to the shape of the foot around the blister area. Don't put ointments or absorbent pads under the plaster if the blister skin is intact – the idea is to have good adhesion to the skin. The pressure of the Elastoplast may squeeze the last of the fluid out, however the small needle hole will seal up and block infection. If the person needs to continue the activity then ideally it is best to change into shoes which are already well worn in and wont aggravate the blister. If this is not possible then put on two pairs of socks to reduce friction on the blister area.

On many occasions I have found that a blister will have disappeared by the next morning, however it is best to leave the plaster on and only remove carefully after about 6 days. I say remove the plaster carefully as some people have thin skin and there is a chance of ripping the skin if care is not taken.

There are two usual outcomes.

1. Either the top of the blister re-bonds and continues growing as though nothing has happened. **OR**
2. the skin eventually dies after several weeks. By the time it flakes off, a layer of new skin has already grown underneath.

I have found in the majority of cases that after 2 weeks the location of the blister is barely noticeable and in the mean time I have been able to continue with an active way of life without discomfort.

If you are sceptical then try it, however I take no responsibility for an unsterilized needle. The needle can be sterilized by placing it in boiling water for 10 minutes, or wiping it with antiseptic solution, or heating the end with a cigarette lighter (no need for glowing red needles – just slight discolouration is quite hot enough to sterilize).

The best treatment is prevention. Wear good fitting boots, wear two pair of thin socks and apply a patch of Leukoplast as soon as the skin begins to feel tender.

This principle can also be used for blisters on the hands caused by rubbing or friction when using tools. I do not advocate this treatment for burn blisters as they are totally different.



Remaining fluid is squeezed out of blister.



Leukoplast is applied over the deflated blister



After 6 days the Leukoplast is carefully removed. Blister skin has almost completely healed.



After 13 days blister has gone