

HIKING BLISTERS:

Blisters can develop when the following is applied to your skin; friction, heat, dirt (which creates friction) and moisture. These effects often combine when hiking. Here's some tips for avoiding blister:

- Properly fitted boots. Go to an expert (REI, Sports Basement, etc.). Try them on at the end of the day when your feet are swollen. Make sure you're wearing the socks you plan to hike in. Wear them around the store for an hour or more, up and down stairs, kick the steps, etc., to determine if there are any "hot spots". Try orthotic insole inserts such as Superfeet to improve fit.
- Proper socks. Never wear cotton socks as they absorb water, dry slowly, provide no insulation when wet, and instigate friction and blisters. Wear appropriate synthetic/wool hiking, backpacking, mountaineering, or skiing socks (Smartwool, Thorlo, Darn Tough, REI, etc.). Wear a liner sock, my favorite is Wigwam Ultramax liners. Liners improve the wicking of sweat away from the skin and provide a friction barrier between your skin and your main sock.
- Condition (harden) your feet. Start at 8-10 miles & 2000' gain. Add 2-3 miles and 1000' per subsequent outing. Condition your feet gradually for your planned activities. If you're going to day hike Mt. Whitney (21 miles & 6200' gain) you should have already worked your way up to 18 miles and 5500' before you go.
- Keep your feet dry. Change your socks if they get wet. Change your socks and/or dry them during the outing. If you're going to be stopped for ~20 minutes or more (lunch?) take your boots and socks off and let them air out and dry. There's a lot more perspiration from your feet than most people realize. If you're prone to blisters do this more often, swap your socks and hang the used socks off the back of your pack and swap them back and forth at regular intervals.
- Apply a lubricant such as Body Glide to reduce friction. Add talcum powder to help keep feet dry.
- Address known hot spots before hiking. If you're prone to blister in a particular spot then cover that spot in moleskin, Zonas tape, or duct tape before you ever start, while the skin is still dry. It's much more likely to stick and stay in place if applied while your feet are dry. Once you're hiking and sweating whatever you put on is much more likely to slide, bunch up, and make things worse. On the other hand I think tape and moleskin soften calluses, so I don't automatically tape up, only when the conditions warrant.
- Address hot spots as they arise. It's a lot easier to get moleskin or tape to stick to a hot spot than an actual blister. And it's very difficult to get either to stick to an open or weeping blister. So address a hot spot as soon as you feel it. Dry your feet thoroughly. Whatever dressing you put on should overlap the non-affected skin 3X such that the patch or tape is at least 3 times wider than the blister itself, but don't wrinkle the dressing as this will just cause more problems. Change to dry socks. Check the dressing at regular intervals when you stop to make sure it hasn't slide. If it has slid repeat the above and then overcoat everything with 3" to 4" of Zonas or duct tape.

If a blister develops:

Closed blister (not leaking)

- When you're home. I prefer to not drain a blister if possible. The fluid will re-absorb and the blister will become a hard callus. If it's painful and/or will rip if you walk then you should drain it. The intent is to leave the skin intact. There's still a pretty good chance it will re-adhere and turn into a callus. Sterilize a needle (flame or alcohol) and pierce the blister at the edge. Blot the fluid away. You may have to repeat this 12-24 hours later if the blister re-inflates with fluid.

- On the trail. If it's just starting to blister and the skin's still flat you can overcoat the entire area with moleskin or tape. If the blister is filling with fluid and/or you still have significant hiking and in particular climbing to do this probably isn't going to work. You will need to build a "donut" around the blister to take the pressure off of it. I carry Dr Scholl's Round Callus Cushions. These are round donuts made out of the thicker Molefoam. If you get a blister while hiking, or already have one and are going out anyway, I place this around the blister. It provides a raised surface for the boot to rub against instead of the skin. Molefoam by itself won't stick if you're hiking (for long) so I overcoat that with a piece or two of 3" to 4" Zonas or duct tape wrapped around the sides of the foot or heel.

Open blister (skin torn and leaking fluid)

- Don't continue to hike on it if possible. If it's on your heel you can hike downhill (out), but hiking uphill significantly will give you the equivalent of a 3rd degree burn. This type of aggravated blister is extremely painful, gets infected easily, and typically takes three to four weeks to heal.
- Moleskin by itself won't stick (for long) if you're hiking on an open blister, and even Zonas or duct tape will slide because the blister will continue to ooze. Dry your foot and place the Callus Cushion "donut" on the dry skin encircling the wound. The molefoam by itself won't stick over the long haul. So if you're going to hike this way tape over the Callus Cushion with a couple 3" to 4" long strips of tape that wrap around the sides of the heel. Check this dressing often. In my experience that's the best defense for relieving heel blister pain and minimizing further damage when you have to hike.
- When you're home clean gently with warm soap and water regularly. Leave the blister open and exposed to air as much as possible until it dries out. Don't hike on it until it's fully healed. And if you ignore this then take the precautions listed above, such as covering it in advance if it's nearly healed or using the donut if it's still tender.

Other treatments:

- There are newer treatments for open blisters. Dr Sholl's makes something called Blister Treatment that you are supposed to be able to apply directly to an open blister. These are really sticky but I haven't had much luck as they have still slide off on me, and they made a sticky mess in my sock. I've heard people swear by another brand of similar product called Spyroflex. You place this directly over the blister and leave it for days. It's supposed to help with prevention and healing. I haven't tried it. You should experiment with all of the above to figure out what works best for you
- I carry Spenco 2nd Skin in my 1st aid kit. This is a wet burn dressing but also works well to sooth and heal a bad open blister. It can be applied in the center of the "donut" I've described above.
- Tincture of Benzoin can be applied to the skin for better bandage adhesion. I also carry this in my 1st aid kit

Conclusion:

Follow the directions for avoiding blisters. Treat hot spots as soon as you feel them, before they become a problem. If you get blisters figure out what's causing them and take action to address it. Address any issue in advance or before it becomes a problem. People often continue hiking with hot spot(s) because they don't want to stop and inconvenience the group. But if you get a nasty open blister you could be jeopardizing the outing for everyone.