

Foot Care on Long Backpacking Treks

Foot Care on a Long Backpacking Trek – Written 2008; Updated 2014

By Ms. Dillon

In the summer of 2008 I hiked 11 days and 80+ miles at the Philmont Scout Ranch with the Aqua Panther Crew. It rained 9 of the 11 days and I found it challenging to keep my feet and socks dry. At the end of day 8, I spent an hour with 2 Philmont ranger medics as they worked on my very sore and blistered feet and I learned a quite a bit about foot care on long treks.

First, what I learned does not negate the basic foot care principals that we have been taught. Carrying moleskin remains an important part of our first aid kits for standard foot problems. But I found out that what works for a several day backpacking trip may not be sufficient for much longer hikes and wetter conditions.

Naturally your boots must fit you properly and be broken in. My issue was not my boots, but the damp weather, my sweaty feet, the condition of my socks and how I treated my sores.

Socks

Socks must fit snugly – and much tighter than I expected. One of the male rangers purchases women's socks because these socks are narrower and fit more tightly than do regular socks for men. The rangers were neutral on the value of liners. If liners work, then continue to use them. Many socks, especially SmartWool® socks stretch after repeated use. So check the fitting of your favorite socks or liners and you may wish to retire them if they no longer fit tightly. Mine had stretched more than I realized.

Not only must socks be dry, they must be free from accumulated body salts. The dried salts in the socks act like an abrasive pad. And if your feet have soft spots due to dampness **and** your socks are a bit loose, your socks will scrub your feet like sandpaper with each step you take. A casual rinse of the socks may not be enough to clean out these salts. You may need to soak, scrub them well and rinse them thoroughly. While I washed my socks whenever possible, I probably did not scrub them enough to remove the excess salts.

Dry Feet

Of course dry feet and dry socks are good. But if your feet sweat extensively, the medics recommend that you use an antiperspirant on them. But make sure that the antiperspirant isn't scented, so as to not attract bears. Read the product labels carefully to find an antiperspirant. Most "deodorant" products in stores are just that – and they may not contain an antiperspirant. Look for ingredients such as aluminum chlorohydrate and aluminum zirconium tetrachlorohydrate.

Since the Philmont 2008 trip I have experimented with several different antiperspirants (all readily available at CVS.) While each would reduce the amount of sweat, I had better luck by using lighter weight boots and synthetic socks with breathable sections around the center of the foot.

Both medics suggested the use of foot powder to keep my feet dry. However, another ranger had discouraged its use since it's a smellable that could attract bears and so I left mine at base camp. I did end up using foot powder after the visit with the medics, but I did not apply it near my tent. Only applied it in the morning and used as little as possible. It certainly helped. (2014 update- I use it regularly now on each hike.)

CVS has a travel size of Gold Bond's Body Powder that works great. The bottle has more than enough for a Philmont trip.

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Blisters and Calluses

If dry feet are good, so are dry hard calluses. Some of my blisters had popped and were quite raw, so I had kept them covered with bandages (a combination of moleskin and band-aids) and used a bit of Neosporin on the sores to prevent infection. Unfortunately I learned that this kept the skin too soft and did not allow the blisters to callus over. Thus my feet had become more prone to repetitive injuries. Ouch!

The rangers were adamant that when I wasn't hiking, that I air dry my feet whenever possible and let the blisters callous over. For the rest of the trek, I did not wear socks to bed and kept my bare feet outside of the sleeping bag as much of the night as possible. While at camp, I air dried my feet whenever feasible. Within 24 hours, I could see and feel the difference.

The medics cleaned and dried out the problem areas of my feet with alcohol swabs so I could let them air dry over night. The next morning, before we started hiking, they wrapped the worst of the open sores with a "second skin" product (a very thin, breathable bandage), without any ointment (which they said is controversial). Then they wrapped duct tape around these areas to keep everything in place.

For the blisters on my heels that had not popped, the issue was whether or not to drain them. Since we still had over 20 miles to go, we decided to drain them. Using alcohol swabs, the medic cleaned my heels and cleaned the tip of a safety pin. He punctured the bottom of each blister in several places and then rubbed the blister until the fluid drained out. (It sounds worse than it was.) He then put a small Band-Aid over the punctures. They dried out over night. The next morning he wrapped each heel in duct tape. This definitely worked.

Duct Tape

When I asked the medics about the best way to treat blisters, each of them immediately said, "duct tape". At the first sign of any hot spot they put duct tape directly on the spot. It sticks better and is tougher than moleskin. By applying it immediately you can prevent or reduce further irritation that can lead to a large blister. But not all brands of duct tape are equal. Use good quality duct tape, or it could work its way loose while you are hiking.

In 2014 I tried the Spenco 2nd Skin Blister Kit. (Available at REI). It has adhesive tape and strips that stick even better than duct tape on the flat parts of my feet. (I have not used it around my heels yet.) I have only used in on 3-day hikes, and a 20-mile hike as a preventative measure. So far so good! (Note – REI also has the Spenco Blister Pads. I tried those on my heels. After only a two hour hike, they fell off. While they felt good, the adhesive isn't strong enough. Perhaps they'll work better on a flatter surface on the foot. But they are expensive and I don't recommend them.)

Toes

In 2014, I found a good solution for blisters on my "pinkie" toes. These small toes are very difficult to bandage. At CVS I found a "Gel Toe Protector" in the foot care section of the store. It's a 3" tube, with one closed end. I cut it to length and slip it over my toe. It can slip off during the hike, so I need to reposition it after a few hours, but it works very well for me. With care, you can use it for several days before replacing. Even a tubular section with out a closed end works well.

In Summary

I had brought four pairs of my favorite socks so I wouldn't have to "break them in", but in hindsight they were too loose. I thought I was doing a good job in rotating the socks, and in cleaning and drying them. However there were still too many days when either my socks or my feet were

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damp or the socks were probably crusty with dried sweat. So by day 5 the blisters started to form and I treated them in way that had worked well on shorter treks, but was inappropriate for the new conditions. As a result I ended up making things worse. With the help of the medics, two new pairs of socks, new procedures to take care of my feet and a supportive crew, I completed the remaining 3 days and 22 miles of our Philmont adventure.

Additional Resource (added 2014)

***Fixing Your Feet – Injury Prevention and Treatment for Athletes* By John Vonhof, Wilderness Press, 2013**

This book covers a wide range of foot problems including blisters, heel/toe problems, bandaging, lacing to solve various foot problems, etc. It's written for people who are runners, ultrarunners, hikers, adventure racers and foot-care specialists. It's a great book. Here are some tips from the book that I've found useful:

Lacing Tips (page 157)

“To prevent laces from untying, don't double-knot at the top. Instead gather the loops and lace ends and tuck them through one or two of the cross strands toward the top of the shoe. This prevents laces from coming untied as effectively as double-knotting and is easier to untie. “

Trimming Toe Nails (page 13)

“... I have observed that untrimmed toenails are the number one cause of problems leading to toe blisters and black nails. Socks will catch on nails that are too long or that have rough edges. This puts pressure on the nail bed, leading to blisters under the toenails, blisters at the tips of the toes or painful toenails as they are pushed back into the cuticle. Nails that are too long are also prone to pressure from a toe box that is too short or too low.”

“Toe nails should be trimmed straight across the nail – never rounded at the corners. Leave an extra bit of nail on the outside corner of the big toe to avoid an ingrown toenail. After trimming toenails, use a nail file to smooth the top of the nail down toward the front of the toe and remove any rough edges.”

The Art of Putting On Your Socks (page 94)

“Not everyone needs a primer on how to put on your socks, but it is important to know a few tricks. Although it seems like a simple thing, it can make a difference between sore, blistered feet and happy feet. “

“First, be sure your socks are clean and free of debris. Hold them by the cuff, pull them through the closed fist of the other hand, and then whip them through the air a couple of times. Turn them inside out and then repeat. If the socks have a heavy seam at the toe, wear them inside out. Next, massage your feet and between the toes, making sure there is absolutely no grit or other debris. Then either roll or bunch the socks up, so the toes can be placed in the toe of the sock. Be sure the seam is across the top of the toes and, if possible, not lapping around the small toe. Now bring the sock up over the rest of the foot and up the leg; use a massaging motion to be sure there are no wrinkles and to detect any rough spots or debris. “

“Next remove the insert from your shoe and inspect it. Remove any lint, toe jam, or other debris. Now bang the shoes together sole to sole a couple of times and then tap the heel on the ground. Now shake out any debris and reach inside and feel all surfaces for other problems. Replace the inserts and put on your shoes. It sounds complicated, but the whole process takes less than a minute and can prevent many foot problems.”