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## **If you get blisters when you break out the sandals and hiking boots, we've got advice**

By Jennifer Barger

A blister is a collection of fluid under the top layer of your skin. “Take it back to high school biology: You have two [top] layers of skin, the epidermis and the dermis. Blisters come from the friction between those layers,” says podiatrist Sheldon Laps, an assistant clinical professor of surgery at the George Washington University School of Medicine and Health Sciences. “Your body is simply producing fluid to protect against continued trauma.”

Most times, those small pockets of fluid (usually clear plasma, but sometimes blood) are just irritating and potentially workout- or wardrobe-impairing, leading to the abandonment of three-mile hikes and three-inch heels. But if you're diabetic or don't properly disinfect one that pops, little blisters can lead to big health problems. “The danger is that a blister bursts, starts to bleed and that you get an infection that goes all the way up your leg,” Laps says. In rare cases, sepsis can set in and even cause death: In pre-penicillin 1924, President Calvin Coolidge's 16-year-old son, Calvin Jr., succumbed to blood poisoning brought on by a blister on his toe that was caused by playing tennis.

### **Preventing blisters**

The best strategy to protect yourself is, of course, to try to avoid blisters. This requires minimizing rubbing or irritation caused by footwear in any way you can. Firmly tie lace-up shoes to prevent toes, heels and arches from slipping around and becoming irritated. Lessen blister-promoting sweat and other moisture by using talcum powder before stepping into shoes and buy wicking socks. “Dry skin won't blister, and a sock in wool or a blend of nylon and Spandex keeps you from sweating as much and holds moisture away from your feet,” says Stuart Lytle, sales lead at the mega REI store in Northeast Washington. “Cotton socks breathe but don't wick, so they'll hold moisture next to your skin.”

Another way to create a blister barrier is to cover zones prone to chafing with simple, inexpensive paper surgical tape, the kind sold at drugstores. According to a 2016 study in the *Clinical Journal of Sport Medicine*, this can reduce the occurrence of blisters by 40 percent. Because it's just mildly sticky, the tape won't tear the roof (a.k.a. the top skin) off any blisters that do occur. “Most people find they get blisters in the same place time after time,” says the study's lead author, Grant Lipman, clinical professor of emergency medicine at Stanford University. “If you throw some tape on those spots before a run or wearing dress shoes that irritate your feet, you'll decrease the rubbing.” Or you could add inserts or insoles to your shoes. These “may disperse the weight on pressure points if your foot doesn't fit the shoe well, thereby decreasing points of pressure, friction that could lead to a hot spot and subsequent blister formation,” Lipman says.

Lipman also suggest that you keep your feet moisturized and supple; softer skin bends more to friction than dry, callused feet. “If someone is going to be doing a lot of walking or an endurance sporting event, I tell them to get a really good pedicure that gets rid of calluses and softens your skin as much as possible,” Lipman says. “Pedicures can shave off calluses, avoiding sub-callus blisters, and shorten nails, minimizing nail base blisters — all good things.” If your toes often rub together in closed shoes, try preventive toe sleeves (little gel or fabric tubes) or toe socks, which have, er, tiptoed into the athletic market via brands such as California’s Injinji.

Shoe choice — and how long you wear those shoes — matters tremendously, too. Yes, that guy at Nordstrom was right: You should try on those pumps or Pumas later in the afternoon, when your feet are the most swollen. Pointy-toed shoes can be a blister- and corn-causing nightmare. As for shoe material: Leather has more give — and tends to be more breathable and comfortable — than canvas or pleather. Soft leather, particularly at points touching the heels and toes, can significantly reduce the frequency of blisters and other hot spots. And any shoe, from a spindly heel to a cushy hiking boot, should get more pliable as you break it in. “Just know that patent or box leather — like what you see on Bass Weejuns — takes a little longer to soften up,” Fisher says. Sometimes a little stretching can help a leather shoe get less pinched; you can do this at a cobbler or with a shoe-stretching form and spray (sold on Amazon). Still, with running shoes or hiking boots, “they should pretty much feel wonderful in the store, like a breath of fresh air,” Laps says.

When all else fails, some people find relief from frequent heel blisters by sticking to mules or flip-flops when possible. “I tried so many kinds of shoes to relieve my constant heel blisters,” says Vancouver, B.C., writer Johanna Read. “I finally just found that backless Crocs in the summer and Blundstone boots in the winter work. I wear ugly, comfortable shoes and I’m fine.”

## **Treating blisters**

If, despite precautions and better footwear choices, you still get a blister, it’s best to act as soon as you feel rubbing or burning. If you’re out walking or hiking, tape or bandage the area before it becomes too angry. Don’t pop a blister unless it’s so painful you can’t walk. “Sit down, take your boots or shoes and socks off and let everything air out,” Lytle says. “Then create a barrier between the irritated skin and whatever’s rubbing.” Many serious hikers carry blister kits stocked with Moleskin (for the shoe), tape and ultrathin blister bandages that are made to stay on longer and resist moisture. Covered, most blisters should heal in a few days or a week; just watch for signs of infection.

If that nasty burning-meets-pressure feeling makes it impossible to wear shoes? “I recommend draining blisters that get really painful,” Lipman says. “Take an alcohol-soaked pad and a safety pin, then use one side of the pad to clean the blister and the other side to clean the pin, then pop it, drain it and cover it with a bandage.” Try to keep the roof of the blister intact, and don’t peel off the dead skin; it still provides some protection against infection. Cover the blister with a bandage for the first few days, and keep it clean. The whole thing should heal in three to seven days if you don’t put on the offending shoes again. “Of course, the easiest way to stop the pain is to stop any physical activity,” Lipman adds. “But we have busy lives, and you may just have to get that workout in.”