



Blisters

By: David Poynter, MD, and Daryl A. Rosenbaum, MD

What are they?

Blisters are a common ailment that affect soccer players at all levels. They typically occur on the back of the heel and sole of the foot. Repeated friction can cause shearing forces that separate the layers of skin from each other. Fluid then fills in the area between the two layers of skin, and a blister is formed.

Causes

Cleats that are too big allow the foot to slide around inside the shoe, creating friction on the sole and/or heel. Footwear that is too small can cause pressure points and as the athlete moves, the skin rubs against the inside of the shoe. New shoes can be stiff and create pressure points, too. Conversely, shoes that have worn out can have rough surfaces that rub the skin. Sweaty skin also leads to increased friction compared to dry skin.

Blisters may be painful, but they are relatively harmless. When they do cause a problem, it is usually because pain causes the player to change the biomechanics of his gait. When this happens, it makes him more likely to injure the ankles, knees or hips because the joints are not used to being stressed in this new way. It affects his ability to play up to his potential because speed and agility are decreased due to the pain. It causes a slight change of the player's focus from the field of play to the pain in his foot. This small change in focus can make a large impact on his performance.

Prevention

Prevention is the key when it comes to blisters. First, make sure to have properly fitting shoes. Have an expert help you determine the correct size for your foot to avoid the problems of ill-fitting cleats. Shoes should not only be fitted for length from heel to toe, but also for the width of the forefoot and height of the arch. Try out new cleats in the late afternoon because the swelling of your feet throughout the day will simulate the swelling that occurs during practice and games. Having properly fitting shoes is just the first step in preventing blisters. Sock choice is also important. Cotton socks absorb some sweat but still leave the feet moist. Many of the new athletic socks are worth the investment. Synthetic materials wick moisture away from the skin, double layers limit friction, and seams are designed to avoid pressure points.

Signs

The first sign that a blister may be forming is what is known as a "hot spot." It will be red, warmer than the surrounding skin and will most likely be a little bit painful to touch. The layers of skin have not separated at this point, so the skin is still lying flat. You should take a close look at your shoes for signs that they fit poorly or are worn down in the area of the hot spot.

When you find a hot spot, take extra care to make sure that the feet stay dry during events,

which may mean that you have to change socks frequently. Some sort of barrier should be placed over the hot spot to decrease friction. There are several commercially available products that can be used, including Moleskin and 2nd Skin dressings. Other methods include athletic tape, petroleum jelly and talcum powder. All of these methods have been proven to have some benefit, but the petroleum jelly and talcum powder only work for a short time and will likely need to be reapplied if the activity takes place over any prolonged length of time.

Treatment

Once you have a blister, the question becomes how to best treat it. If it is a small blister that is minimally painful, the goal is to prevent it from enlarging or getting infected. To prevent it from getting bigger, treat it as you would a hot spot.

To prevent infection, keep the area as clean as possible. This means you should wash your hands before touching the blister and keep the foot clean and dry. Clean the blister itself with soap and water on a regular basis and place a loose bandage over it to prevent it from being inadvertently popped.

If the blister is large or very painful, you can drain it yourself unless you have medical problems that make you more likely to get an infection, such as diabetes. In those situations, have a physician drain it for you. To drain it, thoroughly clean the area with antibacterial soap and/or rubbing alcohol. Sterilize a needle by cleaning it with rubbing alcohol. Then use the needle to puncture the blister near the edge and let the fluid drain. You can apply gentle pressure if needed to get the fluid out. Do not pull off the skin as it is the best barrier to help prevent infection. Push the skin down so it lays flat, put some antibiotic ointment over the blister and cover it with clean gauze. This dressing should be replaced daily and whenever it gets wet or dirty.

Watch for signs of infection around the blister such as increased redness and pain, or drainage of whitish fluid ("pus"). Anyone with signs of infection should be evaluated by a physician.

Blisters are common in soccer players. Although they are usually little more than a nuisance, be safe and take the simple steps described above to ensure that blisters don't hamper health and performance.