



# IF I ONLY KNEW First Aid 101

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## Blisters

Blisters are usually a product of friction. The friction wears out the skin and your body reacts by sending repair material called lymph in the area. The lymph contains almost the same components as blood, but without the red blood cells, hence the absence of colour. The longer the friction will go on for, the bigger the bubble of lymph will be, and the greater the chance the skin will break down.

How is friction created in your shoes? Many factors can be blamed:

- New shoes - not moulded to your foot yet, creating pressure points
- Uneven ground - your foot keeps moving around in your shoe
- High humidity milieu - wet skin breaks down more easily than dry skin
- Big shoes - in shoes that are too big, your foot will slide around and this can create a lot of friction
- Sandy terrain - fine sand will get into your shoes and literally cut your skin
- Overuse - exercising for many hours in the same shoes and socks create a lot of moisture and pressure on some areas of your foot and make you more prone to blisters (right Rogainers?!)
- Undersized shoes - shoes that are too small will definitely create pressure points where the friction factor will be quite high.

### What to do ?

First of all, try to eliminate the risk factors as much as you can. If you just bought new shoes, wear them around the house a few times before taking them for a run - at least, you will be able to remove them the minute they start hurting! If your shoes are too big, add a thicker insole to take up some of the space. Also make sure that you lace them up nice and snug. If on the other hand they are too small, well, you can always give them away, or if not, at least bring them to a shoe repairman that can stretch them. You sweat a lot? Make sure you use natural fibres for your socks (like cotton), or use technical socks like polypropylene, that will wick the moisture away and keep your feet dry.

Some brands of foot powder will also help keep your skin dry ( I have heard of people using antiperspirant on their feet, but I have not found any research on the subject. So stay tuned for that one!). Another good rule of thumb is to try to avoid puddles, especially at the beginning of a race (10 km in wet shoes and socks will definitely give you blisters)! If you know you are going for a long event, or if the terrain is very uneven (like cow fields) or sandy, then the use of two thin socks is a

very good strategy : the two layers of sock will slide against each others, as opposed to the sock sliding against your skin and breaking it down. Also for longer events, changing your socks for dry ones after a few hours (or at least changing the inside layer) will keep your skin dryer and less likely to break down.

### Blister management

Should I *pop* it or not is the question. Well, a big bubble is for sure not comfortable in a shoe! If you can wear shoes that do not put any pressure on the blister site, you might just want to leave it and let your body drain it by itself. If it is a bigger one, or if you have to wear the same shoes again, you may want to drain it yourself. Use a sterile needle, and puncture a few holes in the skin. Let it drain itself by pressure. Disinfect by using a good skin cleanser, preferably antibacterial as well. Make sure you cover with a clean bandage or a blister specific film. Disinfect everyday and change the bandage regularly. If the skin has broken down by itself, then you will also have to *debride* the area, meaning cutting off the dead skin. Once again, make sure you disinfect and cover with a clean bandage.

If there is any trace of blood in the blister (orange coloured blister), **do not** drain it. It is a direct way into your blood stream, and the feet being real nurseries for bacteria, you do not want to take the risk of a serious blood infection.

## Blood Blisters

Blood blisters are created by excessive or repeated pressure on a toe nail. The pressure breaks down the small blood vessels under the nail, just like a bruise. But unlike a simple bruise, the blood has nowhere to go and builds up under the nail. This creates a lot of pressure, that can become quite uncomfortable.

### What causes them?

- Undersized shoes - your big toe ( or any other toe) keeps hitting the end of the shoe or the roof of it
- Oversized shoes - your foot slides around in the shoe, and on downhills it gets worse as the foot will slide forward and hit the end of the shoe
- Spikes - some orienteering shoes have studs or spikes that give you excellent traction, but on the downhills they lock the shoe on the ground and the momentum makes your foot slide forward in the shoe and hit the end
- Direct blow - hitting your toes on a tree or a rock will do it!

### What to do?

The only way to relieve the pressure is to puncture a hole in the nail. If you decide to wimp

out and let your body drain it by itself, you will seriously suffer for many many hours, and probably will not be able to tolerate the pressure of any shoe! Also, because of the gravity, more blood will want to go into the area, so standing up will almost be unbearable.

Pressure build up under a nail can be quite painful. So the best is to relieve the pressure, as quickly as possible, before the blood thickens up and coagulates. You may need a friend to do it for you, as the idea of stabbing yourself with a needle may not enchant you! Anyway, heat up a sterile needle for a few seconds, using a lighter or a match (a hot needle will slice through the nail as a warm knife through butter!). Then hit your nail quite firmly and quick to make it all the way through the nail, but also remove the needle as quickly (the nail might be totally deprived of any sensation, but the skin underneath it certainly is not!). You will then witness your first ever blood geyser, which will be quite spectacular, but also bring immediate relief. You may need more than one hit to totally empty the blood blister. Then make sure you disinfect the toe and cover with a clean bandage. Six months later, you will lose your nail and a brand new one will replace it (there is no way of avoiding the loss of the nail once you have had a blood blister).

## Stitches

You are tired of getting slowed down by stitches? Stitches are normally caused by a poor breathing pattern or rhythm. Trying to monitor and control your breathing may help, but the most effective way is certainly by playing with the *left foot breather* or a *right foot breather* rule and reversing it. Let me explain: when you are running, your body adopts a certain breathing pattern that matches your leg turnover. You normally breathe in as your heel strikes the ground. Some people will take two steps per inspiration, some four, some only one. So trying to change this rhythm when you do suffer from a stitch might bring some relief.

But a more effective way is to reverse your breathing to your other foot. Effectively, research has demonstrated that most runners always breathe in as a certain foot hits the ground, left or right, depending on your habits. Although it seems prevalent that your dominant side becomes your breathing side, no evidence proves it. So next time you go for a training run, pay attention to which foot controls your breathing, so that when you do get a stitch, you can simply change the side, and your stitch will go away within 10 strides! Isn't this great?!

