

Swelling in the lower part of the body, particularly the ankles and calves is a fairly common problem in arachnoiditis, as it is with people who have had a spinal cord injury. It is a result of loss of muscle movement in the legs assisting with venous pumping of the blood back up to the heart.

In people with impaired leg muscle control, the blood in the veins is not efficiently pumped up out of the legs, whilst the arteries continue to bring blood into the legs, thereby creating a build-up of fluid pressure within the veins.

The veins start to bulge, which causes the valves in their walls to fail; fluid components of the blood leak out into the adjacent tissues, making the fascia stretch and tear. Even if the muscle could compress the veins at this stage, the fascia would stretch, so there would be compression but not flow.

A vicious circle is established, with vein function becoming steadily poorer, leading to more swelling and thus worse function etc. If the fluid leakage out of the veins carries with it a pigment (haemosiderin) the affected tissues are stained purple or dark brown.

It is vital to understand that water pills (diuretics) are of no use in this situation.

The problem is 3-fold:

1. lack of muscle strength in the calf causes loss of compression
2. loss of valve integrity

### 3. loss of fascial integrity/ support

The current state-of-the-art treatment uses a series of wraps that have several functions when used simultaneously: the first layer pads the leg; the second layer supports the fascia and the third gently compresses the leg circumferentially to bring the valves closer together. The fourth provides additional support for the veins and is self-adherent in order to prevent the inner layers from unravelling.

Venous insufficiency ulcers:

These are open wounds that result from tissue damage as a consequence of a build-up of waste products in the leg. The venous congestion and incompetent valves are again the root cause for this problem.

There may be a quite widespread inflammatory response of redness, warmth, swelling and tenderness in the calf. This problem may be misdiagnosed as 'cellulitis.'

Dressing open wounds without tackling the underlying cause is likely to be ineffective at best, and if antibiotics are used, could potentially allow the growth of resistant bacteria.

It is important to be vigilant against any skin breakdown from shoes/socks rubbing against the swollen areas, or indeed, sharp edges on wheelchairs or beds as this raises the risk of skin infection (cellulitis) and ulcers. As it is common for people to have reduced sensation, there is a risk of being unaware of damage to the skin and subsequent problems. Always check for redness and sores on a daily basis.

**NOTE: Leg swelling associated with sudden onset of shortness of breath or chest pain requires urgent medical attention, especially if one leg is warmer than the other or is red.**

- If both legs swell, the following tips may help:  
perform range of movement exercises

- elevate your legs to or above the level of your heart for 10-15 minutes at a time, 4 or 5 times a day