

SIGVARIS



# DIABETIC COMPRESSION SOCKS

Mild compression with  
noticeably reduced leg swelling

**SIGVARIS** MEDICAL

## Mild compression therapy with great impact

### Treatment of oedema in diabetic patients

As a diabetic, your blood glucose level, the right diet, or the appropriate medication are issues you probably consider regularly.

But what about your feet and legs? Even though they are very important we tend to forget about them: Diabetes can have a huge impact on your legs and feet.

What is the reason for this risk? And what can you do about it? On the following pages, we will provide you with information about the foot health of diabetes patients – because it only takes a few simple measures to take good care of your legs and feet.

## Leg oedema is a quite common condition



Shin before fingerprint



Shin after fingerprint:  
visible dent in the tissue

A large part of the population is affected by oedema. A survey on the prevalence of venous insufficiency (Bonn Vein Study) showed that 16.8% of all study participants suffered from bilateral leg oedema. Among the participating diabetic patients this percentage increased to 26.6% – primarily due to the various risk factors associated with diabetes.<sup>1</sup>

### What is oedema?

Oedema is the abnormal accumulation of fluid in tissue. It is the result of an imbalance of fluid exchange between the blood vessels and the surrounding tissue.

### How do I recognise oedema?

- heavy and tired legs
- swelling in the feet and legs
- they occur particularly in the evening after prolonged standing or sitting and in hot weather

### What does oedema look like?

- swelling of both legs, which usually starts at the ankle
- the swelling usually increases during the day
- the swelling goes down during the night or with leg elevation
- pressing a finger to the shin can leave a dent in the tissue (see image on the left)

<sup>1</sup> Unpublished data from: Rabe E, et al. Bonner Venenstudie der Deutschen Gesellschaft für Phlebologie. Phlebologie 2003;32:1-14.

# Why are leg oedemas so common

The following list gives an overview of the most common reasons for leg oedema.

## **Chronic venous insufficiency**

Due to a weakening of the vein system, there is a positive pressure in the veins, which then forces more and more fluid from the veins into the tissue. This results in oedemas which are an early indicator of chronic venous insufficiency.

## **Lack of exercise**

Long periods of sitting or standing may be a cause of leg oedema. The activation of the calf muscles as well as the rolling motion of the foot play an important role in the pumping action that supports blood flow from the feet to the heart. If these pumping mechanisms fail, due to long periods of sitting or standing, blood accumulates in the veins of the lower legs, the venous pressure rises and it forces more and more fluid into the tissue, resulting in unpleasant oedemas.

As a diabetic patient, you also have other risk factors in addition to the reasons mentioned that foster the development of oedemas.

## **Medication**

There are large number of medicines for which the development of oedemas is a known undesirable side effect. These include some medicines for the treatment of diabetes.

## **Damage to the blood vessels and the nervous system**

Diagnosed together with diabetes, blood sugar levels have often increased for years and can cause long term damage to the blood vessels and nerves. This causes changes in blood circulation, particularly in the area of the feet, which in turn fosters the formation of oedemas.

## **Heart and kidney diseases**

Another negative aspect of increased blood glucose levels over time is the damaging effect on the heart and kidneys. Heart and kidney diseases are also among the risk factors for the development of oedemas. In case of doubt, contact your doctor to discuss your individual situation and, if necessary, take appropriate action.

## Leg oedema in diabetic patients: Why caution is advised



Special caution is advised in connection with diabetes-associated oedema.

For example, the transport of nutrients and oxygen in the tissue is impaired by water retention. This can cause long term damage to the skin, as well as a higher risk of infection and poor wound healing.

Diabetic patients also frequently suffer from a loss of sensation of pain in their feet. Open wounds are thus often only noticed very late, when they have already progressed to an advance state – they simply go unnoticed for a long time.

If such skin damage is not treated quickly, wounds will heal poorly due to the reduced blood flow to the legs. This may cause a long-term problem called diabetic foot ulcers.




## Effect of mild compression

The effectiveness of compression therapy for the reduction of leg oedemas has been known for decades and has been confirmed by numerous studies. The calf muscle pump is supported by carefully controlled pressure on the tissue and the vessels. This speeds up the blood flow from the legs to the heart.

At the same time, the recovery of tissue fluid into the vessel is increased, which significantly reduces oedemas. And after only a short time, a sense of relief is noticeable in the legs.





## SIGVARIS DIABETIC COMPRESSION SOCKS – gentle on sensitive feet

To reflect the specific needs of your feet, SIGVARIS has developed special compression socks for diabetics – the DIABETIC COMPRESSION SOCKS.

### **Wearing the DIABETIC COMPRESSION SOCKS has the following benefits**

- mild compression pressure to bring relief to your legs
- comfortable, soft material with special padding on the sole of the foot and in the toe area, thus preventing pressure points
- seamless design for optimal protection of your toes
- special yarns for a comfortable foot climate
- warm, comfortable wearing experience

The safety and efficacy of the DIABETIC COMPRESSION SOCKS have been tested in a research pilot study. The study has demonstrated that the mild compression can reduce leg swelling without affecting blood circulation in the legs.<sup>2</sup> This positive effect on leg oedema contributes substantially to the overall improvement of leg health in diabetic patients. Your feet are well looked after by DIABETIC COMPRESSION SOCKS.

<sup>2</sup> Wu SC, et al. Safety and Efficacy of Mild Compression (18–25mmHg) Therapy in Patients with Diabetes and Lower Extremity Edema. J Diabetes Sci Technol 2012;6(3):641-647.

## What you need to know about compression therapy

Most diabetic patients experience less swelling and discomfort when wearing SIGVARIS DIABETIC COMPRESSION SOCKS. However, due to potential sensory or circulatory impairment, compression stockings may not be suitable for all diabetics. Leg oedema may also have other causes which are not mentioned here.

We thus recommend that you consult your doctor before starting to wear DIABETIC COMPRESSION SOCKS. Check-up examinations by a doctor are important and you should not miss them. In addition, it is recommended to check your feet regularly for any bruising, signs of poor circulation or new skin damage. If you notice any of these changes, you should stop wearing the socks and consult a doctor.

DIABETIC COMPRESSION SOCKS can be washed up to 95°C in a laundry bag. For further information on therapy and care, please also refer to the package leaflet of the DIABETIC COMPRESSION SOCKS.





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