# A carefree pregnancy

Your legs are our concern

## ofa bamberg

we care for you

## Dear reader,

pregnancy is an exciting time for the mother-to-be. For nine months a new life is growing inside you and the joy felt in anticipation of the new arrival is increasing all the while. Also during this thrilling phase your body is changing visibly.

These changes, however, are often connected with leg problems. Heavy legs and swelling and even varicose veins can be the accompanying side-effects. Yet, there are ways of preventing physical complaints and alleviating them.

On the following pages we would therefore like to show you how the vascular system functions, why pregnancy takes its toll on your legs and especially what you can do against it. Our tips are to help you have a "carefree" pregnancy.

Yours Ofa Bamberg



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## The body's lifelines. Arteries and veins. How is blood transported?

The human vascular system consists of arteries and veins. The arteries transport the oxygen-rich and nutrient-rich blood to the body's cells and are supported in this by the heart's pumping function.

The veins transport the oxygen-deficient blood back to the heart and the lungs. As this occurs mostly against gravity, the calf muscles support the transportation of blood. To prevent blood backflow, a number of venous valves close off individual sections of the vein (Illustration 1). With every muscle movement blood is pumped from one chamber to the next.

If the venous walls are distended, twisted or have lost their shape, eg in the case of varicose veins (Illustration 2), the venous valves are no longer able to close properly. Blood leaks back and congests in the veins. This favours the formation of a thrombi. In the event a thrombus dislodges, this may cause a pulmonary embolism.





## Veins in a state of emergency. Why do physical problems occur during pregnancy?

Women are during pregnancy especially susceptible to venous disease. In particular, the last 3 months see an increase in symptoms. The pregnancy hormones oestrogen and progesterone are responsible for the connective tissue becoming soft. This also affects the veins.

Besides, to provide optimal care for the child in the womb, the vessels also transport some 20% more blood than is normally the case. As a result, the vessels distend, which makes it difficult for the blood to be transported back to the heart. Due to restricted mobility the muscle pump, which presses the blood upwards in the veins, is also less active. This leads to a feeling of tension and heaviness in the legs. With the increasing weight of the child the veins in the pelvic region are put under additional strain, which also causes congestion.

#### Please note:

Examinations for edema (water retention) and varicosis (varicose veins) are an essential part of prenatal care.





## Carefree through compression

## Pressure brings relief. How compression stockings alleviate venous complaints.

#### Effectiveness

Compression stockings ensure blood flows normal by exerting external pressure on the veins and thus stabilizing the vessel walls (Illustration 1). The venous valves are again able to close and in this way prevent the backflow of the blood.

Medical compression stockings guarantee a regulated decrease in pressure depending on anatomical conditions. The pressure is strongest at the ankle and declines upwards along the leg (Illustration 2). The pressure accelerates the return of the blood to the heart, thus noticeably improving blood circulation in the leg. Medical compression stockings should not be confused with support stockings. Support stockings have a lower pressure than medical compression stockings and are provided by shoe/confection size (medical compressions stockings by the circumference of the leg). So support stockings are mainly suitable for people with healthy veins, to help prevent venous complaints.

Please notice that venous disease cannot be treated with support stockings. Furthermore support stockings are only available as a standard product and are not prescribed by a physician.

#### Vein with compression stocking

Compression stockings press the veins together enabling the blood flow to return to normal.

#### Illustration 1

#### Distribution of pressure Illustration 2 in the compression stocking



A distinction is made between four compression classes (Ccl.):

Ccl. 1 (18 – 21 mmHg): light compression Ccl. 2 (23 – 32 mmHg): medium compression Ccl. 3 (34 – 46 mmHg): strong compression Ccl. 4 (from 49 mmHg): very strong compression

#### Small difference, major effect:

Medical compression stockings are considered the basic form of treatment for all diseases of the venous and lymphatic system. They exert an exactly defined pressure on the tissues and vessels. Medical compression stockings are divided into four different compression classes. These differ from one another in terms of the intensity of compression at rest. Support stockings must not be confused with compression stockings either. These are only suitable for people with healthy veins to guard against tired, heavy legs after long periods of standing or sitting, although they are also effective against traveller's thrombosis. As a prophylactic measure these products cannot replace compression stockings for people with pre-existing venous disease.

Compression stockings should be worn on a daily basis. When regularly worn the pressure effect will, despite you taking optimal care of the stockings, decrease after six months. Therefore, you should take care about a follow-up in time. Your physician determines the compression class and the design. The alternatives range from knee-highs to thigh-highs to tights, specifically designed for pregnant women. While support stockings are only available in standard sizes, there are also compression stockings that are individually made to measure. Whether you require a latter product depends on your leg measurements.



## Tips for a relaxed pregnancy. The way to prevent physical complaints.

## Wear medical compression stockings on a daily basis.

Wearing compression stockings not only helps in the case of venous problems but they may also help reduce the times you need to go to the toilet during the night. Retained water in the legs is flushed out during the night and transported away via the bladder. If you do not have swollen legs, the bladder will not be full so quickly.

#### Avoid standing or sitting for long periods of time and put up your legs as often as possible.

Movement activates the muscle pump, which presses the blood upwards in the veins. Putting up your legs causes the blood to flow back easily to the heart and lungs due to gravity.

## Avoid heat. For example, sunbathing for long periods, hot baths or visits to the sauna.

Heat causes the vessels to widen. As a result, the venous valves no longer close correctly leading to blood pooling.

#### Cool down your legs in hot weather.

In order to prevent the vessels from widening due to heat, it is for example recommended to give your legs a cold rinse.

#### Wear comfortable, light and non-constricting clothes.

Tight clothing can lead to the veins being constricted. Make sure your clothes sit comfortably.

#### Do not wear high heels.

During pregnancy your ligaments are particularly lax and injuries are therefore more likely to occur. Besides, high heels damage back muscles that are already under great strain anyway.

#### Move around regularly.

Pregnancy is no reason to limit one's activities. Only in a few cases of heightened risk is it necessary to give up sport. Usually plenty of movement is of benefit to the mother as it is to the child:

- trained muscles support the back better
- sport trains and supports the strained cardio-vascular system
- reduced levels of stress have a positive effect on the child

## When training you should heed the following:

- heart rate should not exceed 140 heart beats per minute over longer periods of time
- vein gymnastics prevent leg problems (guidance on pages 12,13)
- sports that require participants to determine the pace themselves are the most suitable (eg walking, swimming, cycling, stepper, cross trainer)
- sports with abrupt movement (eg tennis, basketball, badminton) should be avoided
- avoid high risk sports, such as climbing or diving



## So that everything runs smoothly. Vein gymnastics.



1. Warm up

Lie on your back. 'Cycle' easily and comfortably for about 30 seconds.



#### 3. Rolling motion

In sitting position. Raise and lower heels alternately. Repeat 15–20 times.



#### 2. Stretching

Step position. Hold tension in the calf of stretched leg for 15 seconds. Then change position. Repeat 5 times.



#### 4. Foot rotation

Lie on your back. Lift one leg but do not straighten the knee. Rotate the tip of the foot. Rotate 10 times in a left and 10 times in a right direction. Then the other leg.

The exercises depicted help to alleviate leg symptoms and prevent venous disease. With regular exercise you will soon achieve the desired training effect and feel noticeably better.



5. Stretching the calf of your leg Lie on your back and lift a leg but do not straighten the knee. Pull the tip of the foot towards the body to stretch the calf muscles. While breathing out hold the stretched position. Shake your leg. Repeat the exercise with the other leg.

#### Tip:

Wear loose and comfortable clothes. It is best to do the exercises barefooted and make sure you breathe calmly and evenly.

## You are what you eat. Tips for a balanced diet.

A healthy diet is of particular significance during pregnancy. It guarantees optimal care for your child and at the same time contributes to your personal well-being.

The old wives' tale that a pregnant woman "must eat for two" is a misbelief. Today we know that the body's daily energy requirement rises during pregnancy by only some 250 calories, which is the equivalent of just a slice of wholemeal bread with some cheese, and an apple.

Your body does indeed require during pregnancy a little more energy but more importantly nutrients, such as iron, calcium, folic acid, vitamins and proteins. You obtain these through a balanced diet with whole grains, fruit and vegetables, dairy products as well as meat and fish.

With fruit and vegetables make sure you buy seasonal and local produce as they are generally safer. Out of season frozen food is a good choice.

As a coffee lover limit your intake to two cups per day. Even better, however, switch to decaffeinated coffee or enjoy your coffee with a lot of milk, eg as Latte Macchiato.



## Pull-on aids. Everyday practical aids.

#### Tip:

It is best to put on the stockings first thing in the morning because your legs are then still unswollen.

For a successful therapy compression stockings should be worn on a daily basis. Putting on the stockings requires some practice and does not become easier with the increase in body size during pregnancy. However, it need not become a strenuous exercise, for there are practical aids to facilitate putting on compression stockings.

## ofa fit<sup>®</sup> **flexi**

**Flexible pull-on and take-off aid for compression stockings.** Ideal when travelling.

The practical pull-on and take-off aid for compression stockings with open and closed toe. The smooth canvas material allows the stocking to glide effortlessly over the foot.

- ideal for all compression stockings and tights with open and closed toe
- material that is easy to clean and wash
- space saving, suitable when travelling





### ofa fit<sup>®</sup> expert

**Stable pull-on aid for compression stockings.** Especially in case of restricted mobility.

ofa **grip** 

**Special rubber gloves** for medical compression stockings.



The extremely stable frame also enables less mobile users to put on the compression stockings themselves. Its low weight and the swivelling grip bars make it possible to put on the stockings with ease in spite of impaired mobility. Simple and safe to use and there is no need to assemble the device. The special rubber gloves make it easier for you to pull on your compression stockings every day. They are extremely tear-resistant and equipped with pimples, which provide a good grip. If the stocking is not lying perfectly, it can be evenly distributed on the leg in order to achieve optimum wearing comfort. The knitted fabric is also protected in spite of long fingernails and jewellery, and damage is avoided.

#### Pull-on tips:

Practical step by step pull-on instructions with pictures and videos can be found on the Ofa webpage.



Simply scan the QR code with a smart phone or visit our website:

http://www.ofa.de/en-GB/understandingthe-health-issues/understanding-compression-stockings/pull-on-aid/?id=15710









# The joy of a carefree pregnancy

## Compression stockings, an overview. For every need the correct stocking.



**Elegant** medical compression

Also during your pregnancy there is no need for you not to be well-dressed. Our Memory compression stockings have a smooth knitted fabric and hardly differ in appearance from traditional fine-mesh stockings. With ten different colours and two trendy colours that change every year you are guaranteed to find the stocking of your choice. (Ccl. 1,2)



## memory<sup>®</sup> aloe vera

Elegant medical compression and skin care in one

Highly modern functional threads and refined and sophisticated knitting technology create stockings that are pleasantly soft and comfortable. A combination of aloe vera extracts and vitamin E moisturizes the skin the natural way whenever you wear the stockings. (Ccl. 2)



## lastofa®



## **Universal** medical compression

A wide range of designs is a marked feature of Lastofa, the ingenious universal stocking. The soft, fine but opaque knitted fabric is perfectly suitable for all connective tissue and offers due to its high grade yarn and perfect fit enhanced and pleasant wearing comfort. (Ccl. 1,2)

## lastofa<sup>®</sup> cotton

Universal medical compression with cotton

Lastofa cotton is on account of its skin compatibility gratefully worn by patients with sensitive skin and by allergy sufferers, since only cotton is in direct contact with the skin. Due to the firm knitted fabric this quality is perfectly suitable for patients with soft connective tissue and for the treatment of serious indications. (Ccl. 1,2,3)

#### Tips:

If you feel too warm in summer, spray while wearing the stockings cold water on your legs.

Grip tops with silicone coating guarantee wearing comfort without the stocking sliding down the leg and pinching.

All the colours of our products are tested for skin tolerance.







**Gilofa Fine** Fine support stockings: – 70 den – 140 den



#### **Gilofa Style**

Elegant support stockings with brilliant sheen: - 280 den

## gilofa®

Healthy prophylaxis range

An easy and pleasant way to actively prevent venous problems – also during pregnancy. These fine and elegant support stockings look in no way different from "normal" fine mesh stockings. You will feel the difference when wearing them! The active support boosts blood circulation and prevents tired and heavy legs. Ideal for all those whose work requires them to stand or sit for long periods of time or whose veins are subject to the exceptional strain of a pregnancy. This is why Gilofa support and travel stockings are not only available as knee-highs and stay-ups with lace grip top but also as tights with an extra wide body part. Additionally our Gilofa range offers for fathers-to-be a wide choice of healthy knee-highs: for work, leisure time and travel.

For the complete range of Gilofa products please contact us.

## Ofa Bamberg.

The medical compression specialist – innovative by tradition.

the medical compression since specialist 1928 made in Germany

#### Ofa Bamberg is one of the leading German manufacturers of medical compression stockings as well as supports and braces.

And not without reason. For since the company was founded in the year 1928, Ofa Bamberg has been totally clear about the demands it places on its products: maximum comfort with optimal effectiveness. Apart from a large choice of compression stockings, Ofa Bamberg also offers a comprehensive range of supports and braces (Arcus). The brand Gilofa includes a number of health and preventive products. Not only in the case of venous problems but also for Diabetics.

# ofa bamberg

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