

Compression therapy during pregnancy I

“Right away for patients with thrombophilia”

Pregnant women are six times more likely to develop thrombosis than women who are not pregnant. With this in mind, your treating physician should consider treatment with medical compression stockings at an early stage.



Sonja L. is pregnant with her second child. Compression stockings are part of her everyday life

“I’m familiar with compression stockings from my first pregnancy, and right now they’re absolutely essential,” says Sonja L. as we wander through the park around Blutenburg Castle in the west of Munich, Germany, with her two-year-old son. The 37-year-old, who is pregnant, has a disorder known as factor V Leiden, a mutation in the gene for factor V (proaccelerin), which is involved in blood coagulation. “The factor V Leiden mutation is one of the most common hereditary risk factors for predisposition to clotting,” her treating gynecologist, Dr. Thomas Birkner, later tells

us. “It increases the likelihood of thrombosis compared to the general population by around five to ten times for heterozygous carriers and as much as fifty to one hundred times for homozygous carriers.”

During pregnancy in particular, coagulation disorders such as a factor V mutation can further increase the risk of thrombosis and may also cause a miscarriage. Therefore, for women like Sonja L., it is usually recommended that they begin thrombosis prophylaxis using medical compression stockings and, in some cases, medication – normally low-molecular-weight heparin – as

soon as they find out they are pregnant. “In fact, I should wear stockings all the time, which I don’t always manage to do. But I’m completely consistent with it while I’m pregnant,” says the expectant mother.

Ingenious system

During pregnancy, the hormonal changes alone put the mother’s body in an exceptional situation. “On top of this, pregnancy also causes hypercoagulability, a pathological increase in the blood’s tendency to clot that leads to an increased risk of thrombosis,” says Dr. Birkner. “From around the 20th week of

pregnancy, the coagulation factors VII, VIII and X increase considerably, with another marked rise in factor VIII shortly before the birth. Meanwhile, as the factors that promote coagulation increase, those that help to prevent excessive coagulation also decrease." There is, of course, a reason for this, as the gynecologist explains: during the birth, wounds occur in the uterus relatively frequently, and the mother's body tries to heal them as quickly as possible. "This only works if, firstly, the uterus minimizes the wound surface area through contractions and, secondly, the coagulation system is significantly elevated." Unfortunately, this means that the risk of thrombosis also increases constantly throughout pregnancy and remains high until up to six weeks after the birth.

Thrombosis prophylaxis especially important

"Around 30 out of every 10,000 pregnant women develop deep vein thrombosis," says Dr. Birkner. "Therefore, thrombosis prophylaxis is very important during pregnancy, especially if you already know that the patient – like Sonja L. – has a mutation in one of their blood coagulation factors. And then there are other disorders

"Thrombosis occurs 26 times more frequently in Caesarean sections than in natural birth."

(Dr. Thomas Birkner)

that occur during pregnancy and can increase the risk further, such as pre-eclampsia." The specialist therefore prescribes class 2 medical compression stockings to women with an elevated risk as soon as their pregnancy test comes back positive. For all other pregnancies, what he prescribes depends on the symptoms. "Around one in five of my patients have problems with their legs. Swelling is a major issue for many women. If the water retention goes beyond a certain degree, compression stockings are a good idea. These problems often lead to other symptoms, such as leg pain and the characteristic shiny skin. The symptoms more commonly occur in the left leg," says the physician from



If a patient is at increased risk of thrombosis, Dr. Thomas Birkner immediately prescribes compression stockings.

Munich, speaking from experience. He is on especially high alert if a patient suffers from sudden pain when their leg is subjected to a load. "In such a situation, I look for what is known as Homans sign: if the patient feels discomfort in their calf upon extension of the leg and dorsiflexion of the foot, this indicates that thrombosis may be present." Dr. Birkner advises women who have been prescribed compression stockings during pregnancy to carry on wearing them for



A stand-out feature: the silicone lace band.

up to six weeks after the birth due to the continued elevated risk of thrombosis, as described above. He also stresses that thrombosis prophylaxis is essential after a Caesarean section. "Thrombosis occurs 26 times more frequently in Caesarean sections

than in natural birth. This means that all new mothers must be provided with compression stockings and a course of heparin after a Caesarean." The physician reports that, fortunately, patients tend to be very willing to accept compression treatment.

Good for circulation

Sonja L. is also clearly aware of the effect that wearing the compression stockings has had on her well-being, reporting that they have improved her health on a more general level too. "For example, I feel more revitalized in terms of my circulation. If I forget to put my stockings on in the morning, it only takes me two hours at the most to notice the effects. Then I have to put them on quickly and drink a coffee to get my circulation going. I also find that normal socks cut into my legs because of the water retention. Compression stockings have their advantages here too."

On top of this, Sonja L. has yet another good reason to wear her compression stockings. "Before my current pregnancy, I had an operation on my right leg because the venous valves had stopped closing. I had a varicose vein that was removed. I never want to have an operation like that under general anesthetic again, so preventive treatment makes sense to me."