





Environment and Climate



Short stretch. Long-term action

The new Rosidal 1C short-stretch bandage combines skin layer, padding layer and compression layer into a single product. This saves time during patient care and is more comfortable – a benefit for patients and caregivers alike.

Swollen, tired legs. Every step requires effort. It feels like wearing heavy rubber boots that you can never take off. That's how people with venous insufficiency describe their symptoms.

Tiny valves, large impact

Healthy veins have small valves that open and close after each step. So they act like check valves: they allow blood to flow to the heart and prevent it from pooling back down into the feet. If these venous valves deteriorate, the system stalls. Blood pools, the legs swell.

A compression bandage from the midfoot to the knee exerts gentle pressure on the dilated blood vessels. This allows the valves to close and operate like valves again. Blood flows back to the heart more quickly, and excess fluid in the tissue is reduced.

Who is affected?

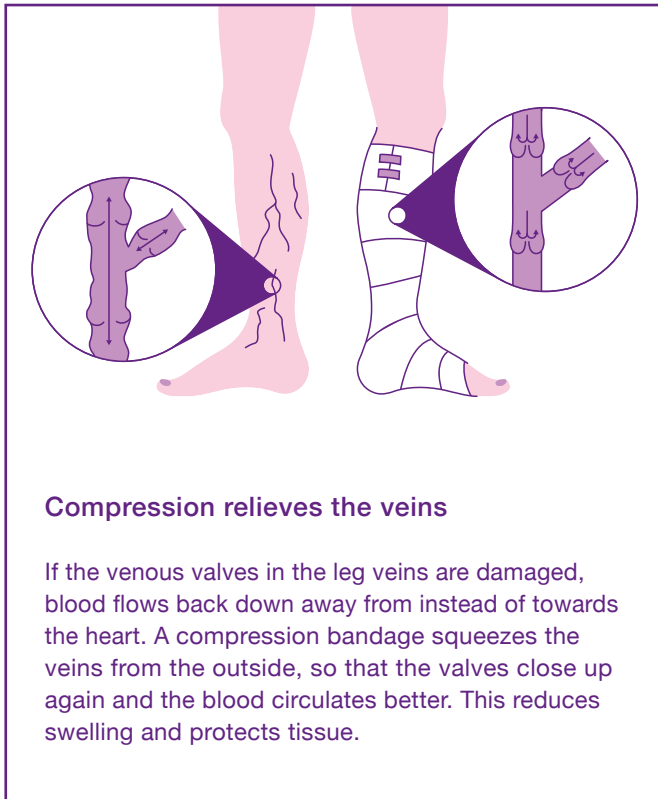
Venous insufficiency can basically occur at any age. In younger people, the causes are often temporary: Swelling after an accident or surgery, oedema during pregnancy, or superficial vein thrombosis. With increasing age, chronic

Rosidal 1C helps both patient and healthcare worker.



**“Rosidal 1C
makes my work
much easier.”**

Andreea Fontu,
Healthcare Assistant



Compression relieves the veins

If the venous valves in the leg veins are damaged, blood flows back down away from instead of towards the heart. A compression bandage squeezes the veins from the outside, so that the valves close up again and the blood circulates better. This reduces swelling and protects tissue.

Applying these three layers one after the other takes time, and also adds bulk. Normal shoes soon become too tight. For anyone confined to bed this barely matters, but for patients in the prime of life it represents a noticeable restriction. It is therefore not uncommon for the bandage to be removed earlier than medical advice recommends, with serious consequences: therapy is cut short, wounds heal slowly or reopen.

Andreea Fontu has been working as a healthcare assistant for thirteen years and has applied countless compression bandages during this time. Depending on whether she also has to treat a wound, it takes her five to ten minutes to bandage a leg properly with three layers of bandage. With Rosidal 1C, she can do it in less than two minutes. Fontu was able to test the new bandage during a training course and has been using it in her normal work ever since. She is enthusiastic: “Rosidal 1C saves me a lot of time and effort and makes my work much easier.” She finds putting it on and taking it off much easier than with three layers of bandages.

Three-in-one

Simpler, faster, more practical: that’s exactly how Angela Hauler had imagined the product to be. She heads the research and development department for compression bandages at L&R. She sums up the brief as follows: “Cover all three steps with a single bandage.” The primary focus is on comfort and benefits for patients and healthcare workers. The fact that a single product takes up less space in the warehouse than three is an additional advantage.

diseases become more prominent: chronic vascular weakness, open leg ulcers or lymphoedema, where lymphatic fluid no longer drains properly.

When compression therapy is applied in thick layers

A short-stretch bandage will only stretch a little. This creates a clearly noticeable working pressure as soon as the person moves and the leg muscles become active. The pressure eases off when resting. This makes short stretch bandages ideal for people who are mobile and can walk. The compression bandage provides support but does not restrict movement when sitting or lying down. A traditional compression bandage has three different layers:

1. A skin-friendly underlay made of cotton or viscose protects sensitive skin, absorbs sweat and allows the padding to slide.
2. The padding layer cushions the pressure on the ankle and shin.
3. The short-stretch bandage creates the therapeutic pressure which supports the muscle pump.



Rosidal 1C is packaged in FSC®-certified cardboard.

Hauler and her team of textile experts, biotechnologists and chemists have been working on the innovative product for more than two years. The route from research lab to everyday practice is teamwork: Clinical review, portfolio management, risk management, usability, quality assurance, production, scheduling and sales – a total of some 35 people contribute their experience.

High-tech comfort for the skin

L&R has invested in new equipment for Rosidal 1C. It processes 900 ultra-thin threads in parallel and makes four webs from these, each eight or ten centimetres wide. On the skin side, fine loops of polyamide form a soft, absorbent terry effect textile. It's pleasant to the touch and wicks away moisture. Cotton, polyester and elastane make Rosidal 1C firm yet elastic. To apply the bandage, stretch it to its full extent. This reduces the risk of wrapping the bandage too tightly. "This is an important factor in home nursing care," explains Hauler. "It means that, once shown how, family members can also apply a compression bandage." The material is designed so that the layers

adhere to each other. This makes the bandage less likely to slip and more comfortable to wear. Rosidal 1C can remain on the leg for up to seven days, an advantage for patients and healthcare workers alike.

Manufactured using short supply chains

Rosidal 1C is manufactured in Nova Paka in Czechia. This is noteworthy in an industry which often relocates its manufacturing to Asia. "I think it's great that we still manufacture in Europe," says Hauler. This has a direct impact on the carbon footprint, because short transport routes mean lower CO₂ emissions. While other compression bandages are shipped halfway round the world, Rosidal 1C only travels a few hundred kilometres, from northern Czechia to patients in Germany, Austria and Switzerland.

Proximity also plays a role in the sourcing of raw materials: The polyamide, which makes up the largest share at 48 per cent, comes from Spain. The elastane comes from Austria; only the cotton and polyester come from outside Europe. All yarns meet the standard of the independent OEKO-TEX certification system, which tests textiles for more than 1,000 harmful substances and is recognized worldwide as a seal for materials that are safe for health. Rosidal 1C is latex-free and therefore also suitable for allergy sufferers. The first compression bandage from L&R, it is also packaged in cardboard certified to Forest Stewardship Council (FSC®) standards.

Manufacturing in Europe has another advantage: quality and working conditions remain a focus, as does development and value creation in the region.



“Patient acceptance is a key success factor.”

Angela Hauler, Head of Research and Development for Compression Bandages



“I hardly notice that I’m wearing a compression bandage.”

Helga Matousek, patient

And what do the patients say?

Feedback from clinical practice is clear. “Patients appreciate that Rosidal 1C is comfortable to wear and fits very well into everyday life,” says Andreea Fontu. Sensations of tightness or excessive pressure are hardly noticeable. Especially people who had previously used three-layer systems felt the benefits of the 3-in-1 bandage clearly.

One of them is Helga Matousek, who has been reliant on compression bandages for a long time. She has already tried quite a few alternatives. Her verdict: “Rosidal 1C is the best I’ve ever had.” What she appreciates most is that she hardly notices the bandage in daily living. “I hardly notice that I’m wearing a compression bandage – and that’s very valuable to me.” Since the switch, she feels freer and more mobile, and can do more again. Her overall condition has changed: “I feel better both physically and mentally.”

The fact that Rosidal 1C consists of only one layer helps with this: the bandage is thinner than traditional systems, the ankle joint remains mobile, and normal shoes normally still fit. The success of compression therapy depends crucially on how well it integrates into daily living. “Winning patient acceptance is a key success factor in compression therapy”, says Angela Hauler.

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functions are combined into one with the Rosidal 1C.

