

Compression as an effective approach in scar management

Contribution to the use of medical compression in cooperation with Dr. med. Bernd Hartmann, Univ. Prof. Dr. med. Lars-Peter Kamolz, Prof. Dr. med. Clemens Schiestl









Follow-up treatment as an important factor for patients' scar quality

Every scar tells a story and comes with its own challenges, be it in terms of mobility, pain, itching or aesthetics. Individual perception differs significantly and can also involve psychological stress for patients and their environment.

After leaving the clinic, follow-up treatment plays an important role. The implementation of aftercare recommendations by medical and therapeutic specialists can make a significant contribution to a smooth healing process and a good aesthetic result. It is very important that the patient's healing process and health is monitored by a doctor and any unexpected complications are detected and treated as early as possible.

Every injury leaves behind marks in the form of scars. If a large section of the skin is affected or the injury extends to the deep layers of the skin, this can lead to very distinct scars and major hindrances in day-to-day life. Every person deals with their scars differently, with the story behind the scars playing a major role. The aim of scar therapy should not just be to regain mobility, but also to restore aesthetics. Be they large or small, scars can have a major effect on a person's quality of life. Treatment should therefore be provided for every bothersome scar.

If our skin is damaged as a result of accidents, surgeries or illnesses, our organism tries to repair it. But often, the same level of functionality as before the injury is not regained. This is only possible if there are no other accompanying factors that can impede skin healing. The healing process depends on the type, size and depth of a wound, but also on other factors such as the lifestyle and age of the patient.

Scar tissue can change for up to two years after its formation. However, in the case of surgical scars, the duration may be significantly shorter. During this time, scar therapy can have a positive effect on the development of a scar. Especially in the early stages of scar formation, itching and pain can be reduced.

In addition to targeted and controlled mobilisation, the use of silicone products and ointments, **compression therapy has been the gold standard of non-invasive therapy internationally for decades.** Wearing compression garments every day has a positive effect on the quality of a scar and can support healing and counteract an overgrowth of scar tissue. This involves exerting a medically effective and constant, ideally large-scale pressure on the scar area. To achieve this, it is important that the person being treated is measured by a medical specialist to ensure that the compression garments are an exact fit. In some cases, pads may be necessary to provide optimal pressure to the scar area.

The active participation of patients is also important. Wearing the compression garment consistently (in accordance with doctor's instructions), in some cases for up to 23 hours per day*, is the only way to ensure that the scar heals well without any functional restrictions. Other factors that influence the duration of the therapy: The severity of the scars, location and extent of the scars as well as the healing response that may vary from person to person.

In recent years, innovations in the area of invasive therapy that have become newly established on the market have been increasingly discussed at medical congresses. As a result, the importance of follow-up care as a basis of treatment has somewhat faded into the background. However, this does not mean that it is of no relevance.

In order to elaborate on the importance of medical compression, we asked experts from the DACH** region about their recommendations and experiences in follow-up treatment.

In this article, we will first provide in-depth information about medical compression and the differences between the materials available on the market. This is followed by developments in medical compression and finally by expert interviews.

^{*} For hygienic reasons, a second prescription should always be issued as part of the initial treatment so that an suitably fitted replacement product is available. In the event of illness- or use-related wear and tear or a pronounced change in the shape of the body areas to be treated, a new medical prescription for compression garments may be necessary.

 $^{^{**}}$ This region includes Germany, Austria, and the German-speaking parts of Switzerland.



Product options and mode of action of medical compression

Medical compression is an important therapeutic measure in the treatment of problematic hypertrophic and keloid scars. These special types of scar formation result from an excessive wound healing response, which leads to uncontrolled tissue proliferation. In the medical field, the use of compression garments has over decades proven itself to be an effective method for reducing the aesthetic and functional impairments

of these scars. Applying targeted and defined pressure to the affected areas not only improves blood circulation, but also regulates collagen growth. These influences can help improve the appearance of hypertrophic and keloid scars while mitigating their unwanted effects on skin structure.

In the treatment of scars, different materials and types of compression therapies can be used. The best compression selection depends on the type and stage of the scar. Here are some of the common compression methods:

Elastic compression garments

Elastic supports or garments can be used to apply continuous compression to the scar. This type of compression is often used for hypertrophic scars or keloids to increase pressure on the scar and smooth the scar tissue.

Special pressure therapy

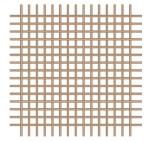
In the case of severe hypertrophic scars or keloids, special pressure therapy may be required. This may include the use of custom-made compression garments or pressure bandages that apply targeted and controlled pressure to the scar to flatten the scar tissue. Polyamide or polyester are often used. These materials are lightweight and breathable.

Silicone-based compression

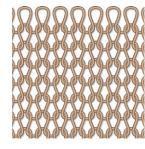
Silicone sheets can be placed on the scar to exert gentle compression. Silicone can help maintain the skin's moisture levels, keep the scar area soft, and improve the appearance of the scar.

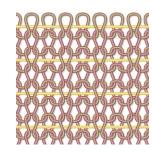
Materials used in compression therapy

Various manufacturing techniques are used to produce the textile material for compression garments, which have an effect on material properties such as elasticity, stretchability and structure. Accordingly, a distinction is made between the following compression textiles: Woven fabric, warp knitted fabric and knitted fabric.









Woven fabric

Warp knitted fabric

Knitted fabric

Knitted fabric with weft

Woven fabric

The textile is produced by crossing threads at a right angle. This refers to cut & sew fabric. This means that the material is cut to size and assembled. Stretch and elasticity are usually less than for knitted fabrics. In addition, the seams are rather thick, as the cut edges must be finished well.

Warp knitted fabric

Knitted fabric made from many parallel warp threads. The fabric is produced by the metre, the pattern pieces are cut out and then assembled. The compression pressure is mainly generated by the cut. Essential features are: thin materials, high level of stretch and elasticity, uniform compression over the entire area, smooth surface and pleasant wearing comfort.

Knitted fabric

Knitted fabric made from at least one thread. This can be adjusted regarding stretch and elasticity and provides the widest range of design options. It can be produced by the metre as well as custom-made in almost any shape. Firm edges allow for very flat and non-bulky seams. With Juzo fabrics, patients benefit from the high quality of the knitted fabric. With Juzo ScarComfort, the elastic core of the weft thread is wrapped with two highly elastic polyamide threads. This optimises the compression effect, wearing comfort and durability.



Juzo ScarPrime Light sleeve



Juzo ScarPrime Light leggings

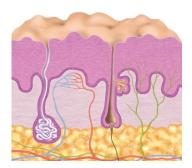


Juzo ScarComfort Fine thorax compression vest

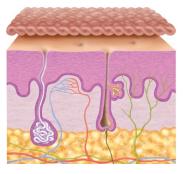
Differences in knitted fabric: Circular knit vs flat knit

When it comes to medical compression garments, a distinction is made between circular knit and flat knit garments.

- Circular knit fabrics are usually thinner than flat knits. The shape is created by thread tensions.
- In contrast to circular knit products, flat knit compression garments are produced as flat knitted fabrics. They usually only adopt their three-dimensional shape when sewn together.



Hypertrophic, raised scar without compression



Flattened scar below the compression knit



Juzo ScarComfort knitted fabric · Flat knit

Special flat knit characteristics:

Because of the precision and adaptability of flat knit garments (Juzo ScarComfort knitted fabric), we would like to highlight the special characteristics of flat knit here:

- Even pressure across a wide area
- Greater firmness than warp knitted fabrics, resulting in good dimensional stability
- Controllable pressure in a transverse direction (due to elastic weft thread, which is only inserted during knitting)
- Ideal for areas that require targeted compression
- Very precise fit due to form-fitted knitting (increase and decrease of stitches)
- Allows the creation of complex and individual solutions

Good to know: The selection of the compression material depends primarily on the specific medical indication and scar type. It is important that the individual needs of the patient are taken into account, including skin type, sensitivity to certain materials and any allergies.



Juzo ScarComfort Pure thorax compression vest



Juzo ScarComfort Pure sleeve with



 ${\it Juzo \, Scar Comfort \, Fine \, for earm \, segment}$

Conclusion:

Flat knit compression offers a very precise fit and targeted compression for individual parts of the body, even in special anatomical conditions that are often present with scars. Juzo offers both flat knit and circular knit solutions.

Developments and trends in product development

Pressure bandages

At the beginning of the 20th century, pressure bandages were used for scarring after burn injuries.

Elastic supports

In the early years, simple elastic supports were often used for compression therapy after scarring. However, these have disadvantages such as uneven pressure, difficulty putting them on and a lack of adaptability to different parts of the body.

Special supports and bandaging materials

Over time, elastic supports and bandaging materials were introduced that were specially developed for scar treatment. These allowed for better adaptation to the shape of the body and provided more even pressure on the scar. Functional materials ensure better air circulation and moisture management, thereby increasing wearing comfort.

Silicone sheets and materials

Silicone sheets were introduced to complement compression therapy. The silicone products prevent the scars from drying out and ensure they remain soft and supple. Juzo Silon®-TEX (medical silicone layer on textile base material) can be directly integrated into compression garments. Juzo ScarPads are silicone sheets that can be cut to size individually and used in combination with compression products or on their own.

Modern compression garments

Compression garments such as the Juzo ScarComfort custom-made solutions, in the form of sleeves, gauntlets, stockings and thorax compression vests, enable targeted treatment of specific areas of the body. They are a perfect fit, discreet and provide continuous compression therapy over a longer period of time.

Innovative materials and technologies

In recent years, there is an increased use of innovative materials and technologies. These include, for example, materials with antibacterial features such as Juzo ScarComfort Silver or seamless compression garments.



Silicone sheet Juzo ScarPad Extra



Juzo ScarComfort Pure with integrated Juzo Silon®-TEX



Juzo ScarComfort Silver sleeve

Production at Juzo

These developments have contributed to making compression therapy for scar treatment more effective and comfortable. You can access our film about production at Juzo via the QR code or under juzo.com/production.













Three experts from Germany, Austria and Switzerland share their expertise on the topic of medical compression for scar therapy:

Dr. med. Bernd Hartmann

Head Physician, Centre for Severe Burn Victims with Plastic Surgery, BG Emergency Hospital Berlin, Germany, Medical Specialist in Plastic and Cosmetic Surgery/Hand Surgery

Univ. Prof. Dr. med. Lars-Peter Kamolz

Head of University Hospital for Surgery Graz, Austria

Head of Clinical Department for Plastic, Cosmetic and Reconstructive Surgery

Prof. Dr. med. Clemens Schiestl

Plastic and Reconstructive Surgery/Centre for Children with Burn Injuries, Centre for Children's Skin, Surgical Clinic, University Children's Hospital Zurich, Switzerland

Senior Advisor, Plastic Surgery Research at the University Children's Hospital Zurich, Switzerland



Dr. med. Bernd Hartmann "In modern burn treatment, we try to minimize scarring, and this includes new products and techniques for wound care as well as consistent follow-up treatment."

Dr. med. Bernd Hartmann from the Berlin Emergency Hospital

As head physician, Dr. med. Bernd Hartmann has been running the Centre for Severe Burn Injuries with Plastic Surgery in Berlin since January 2000. Here, twelve intensive care beds for adults and children are available in one of the largest and most modern burn centres in Europe. It covers the entire north east of Germany across several federal states, with a population of more than eight million. The clinic's research focus is on cultured skin procedures and wound healing processes. Great importance is attached to the follow-up care of patients in special consultations that frequently goes on for years, as well as the necessary plastic reconstructions of the burn scars.

Dr. Hartmann, since when has compression been standard in your hospital for follow-up treatment?

In Berlin, from the very beginning. But I already used this procedure in the 90s in my teaching clinic.

When do you focus your treatment on pure compression garments and when on a combination with silicone or other non-invasive and invasive forms of therapy?

We try to treat all burns that take longer than three weeks to heal and all areas that have been treated with skin grafts with compression bandages. In any case, this forms the basis of the follow-up treatment and should begin as soon as possible after the wound has healed. Silicone is either an add-on or is used on hard-to-treat areas of the body, such as above the sternum, the palm of the hand or in the neck and face area. All other treatments such as laser therapy or surgical needling only arise over the course of the overall treatment and are scheduled through our consultations.

Do you also recommend compression after the reconstruction of complex cases?

Compression is particularly useful during reconstruction after the use of flap surgery, because it often gives rise to lymphatic congestion, resulting in swelling in the tissue.

Are there cases where you would not use compression?

If scars are very small and concealed, the effort and benefits – especially on the part of the patient – must be balanced.

How does scar maturation with compression progress compare to maturation without compression?

There is evidence in literature regarding reduced scar thickness, faster decrease in redness and improved elasticity. And this is also in line with our clinical experience with the consistent use of compression garments.

Who is responsible for measuring the compression in your hospital or during follow-up treatment?

We already try to carry out the necessary measurements during inpatient treatment. For this purpose, a representative of the medical supply retailer accompanies us on our rounds once a week to discuss the indication with us. But at the latest, the affected individual is measured during the post-discharge outpatient visit.

Do you check the fit of the compression for the patients?

After the compression garment has been completed and delivered, we promptly monitor the fit during our consultation. Continuous follow-up checks ensure that patients wear the compression garment correctly. In individual cases, we also consult our medical supply retailer.

How long do you recommend that compression should be worn every day?

We recommend a wearing period of 22 hours a day. But not all of our patients can do that. The compromise is therefore to wear the compression for as long as possible.

For how long should the therapy be carried out?

It can vary a lot. Usually about a year, often longer for children. We check the local findings during our consultations and discuss the progress of the therapy or its conclusion with the person to be treated or the parents.

Is the motivation of those affected necessary for good compliance?

The motivation of the affected individuals is indispensable, which means they have to be kept well informed about the therapy options and progress. After all, patients have to deal with the compression on a daily basis.

Which phase of the therapy is particularly difficult for those affected?

The start of treatment is often difficult. Especially during this phase, small tension blisters may form and cause patients to be alarmed. A close follow-up check is very helpful here.

How do you view the cooperation with a medical supply retailer with experience in the field of scar therapy?

I consider very close cooperation to be absolutely essential, especially in this area of follow-up care. This has been well implemented here in Berlin.





Univ. Prof. Dr. med. Lars-Peter Kamolz

"Our goals are modern, patient-oriented and evidence-based treatment concepts as well as networked and high-quality research and teaching in the interest of our patients and society."

Univ. Prof. Dr. med. Lars-Peter Kamolz from the University Hospital in Graz, Austria

The University Hospital in Graz offers the entire spectrum of modern plastic, aesthetic and reconstructive surgery, including hand and burn surgery. As an internationally networked and active research department, the team designs an individual treatment plan for each patient according to the latest scientific findings. Univ. Prof. Dr. Kamolz has been the Head of the Department for Plastic, Aesthetic and Reconstructive Surgery at the University Hospital for Surgery, Medical University of Graz since 2012; and a board member there since 2023. In addition, he is the Head of the Centre for Regenerative and Precision Medicine at Joanneum Research Forschungsgesellschaft mbH.

Univ. Prof. Dr. med. Kamolz, when do you recommend a non-invasive form of therapy?

During the scar maturation phase, an emphasis is placed on conservative procedures. This means that all conservative options for scar treatment should be fully availed of as long as a scar is still active. Exceptions are severe functional limitations due to scar contractures. If necessary, these should also be corrected by plastic surgery during the scar maturation phase. Otherwise, this phase, which can last up to one and a half years depending on age, is characterised by conservative procedures.

Why is compression, i.e. pressure, important in the scar maturation phase?

For me, compression therapy is the most important pillar for the prevention and treatment of hypertrophic scars. As long as the scar is active, it can be influenced in a positive way. For example, compression can improve the appearance and prevent restrictions in movement and functions. Compression garments ensure an even and extensive pressure on the active scar tissue. This reduces the risk of hypertrophic scar formation. In addition, the scar becomes softer and more flexible overall, the thickness of the scar is minimised and, as a result, movement and functional restrictions can also be reduced. With continuous use, compression can also counteract itching and any possible pain.

At what point do you recommend compression in follow-up treatment for burns?

In principle, all patients who have suffered a 2b to 3° burn are prescribed compression after wound healing or wound closure. As soon as the wound has healed and stabilised, there is an indication for a custom-made solution. It is important that the compression garment fits well and that it is worn continuously. Both must be monitored as part of outpatient check-ups.

What does follow-up treatment look like at your clinic?

Patients come to us at regular intervals for check-ups. It is important to check whether the compression garment fits, whether it is worn, how the wounds and scars develop and whether additional surgical or non-surgical measures are necessary.

What are other important factors that patients should consider during follow-up treatment?

Scar maturation takes time and consistent wearing of compression garments during this period is very important for the long-term result. Besides this, the combination of compression with other procedures is often the most promising way.

How do patients cope with the handling of compression garments when worn for 23 hours?

It is essential to provide those affected with comprehensive information about the various surgical and non-surgical treatment options, the duration of scar maturation and the duration of treatment. It is also important to be there for patients as a competent contact person regarding scar treatment.



Juzo ScarComfort – individual garments for optimal wearing comfort

Benefits:

- Individual tailor-made products for the whole body
- Exceptionally skin-friendly
- Latex-free and breathable materials
- Flat and elastic seams on the outside
- Medically effective pressure with light (20 23 mmHg) to moderate (23 32 mmHg) compression
- UV Protection Factor UPF 30
- Significant freedom of movement
- Easy to put on and take off

Juzo ScarComfort Pure thorax compression vest



"A competent treatment with compression garments is the be-all and end-all of successful rehabilitation of children after thermal injuries."

Prof. Dr. med. Clemens Schiestl

Prof. Dr. med. Clemens Schiestl from the University Hospital in Zurich, Switzerland

In Zurich, the Centre for Children's Skin focuses on holistic nursing, medical and surgical treatment for children and adolescents in the area of burn injuries, skin abnormalities such as naevi and skin diseases. Prof. Dr. med. Schiestl has many years of expertise, primarily in the treatment of children. From 2003 to 2023, he was Director of the Paediatric Burn Centre in Zurich and the Department for Plastic and Reconstructive Surgery at the University Children's Hospital. From 2019 to 2022, he was President of the European Burn Association (EBA). Since 2021, he has been Chair of the Research Committee of the European Burn Association (EBA).

Prof. Dr. med. Schiestl, what are the challenges in the follow-up treatment of children?

Children and adolescents have certain peculiarities when it comes to scarring, which should be taken into account when compression treatment is indicated. It is true that acute wounds in children and adolescents heal much better and faster than is the case with an older person, for example. However, once the wound is closed, either through wound healing itself or through a skin transplant, it is typical that excessive scarring frequently occurs in children and adolescents. Although this happens during a limited time-frame, it makes wearing compression garments even more important. In addition, itching after a thermal injury has healed is often more pronounced in children and adolescents than in adults. Compression garments reduce the intensity of the itching and shorten the time if its occurrence, as compression garments shorten the maturation of scars. With mature scars, itching usually stops.

What motivates the children when wearing compression garments?

In the follow-up treatment of children after scalds and burns, a major role is played by parents and often by the whole family. If we succeed in convincing parents of the necessity of scar therapy by wearing custom-made compression garments, one of the most important components of successful follow-up treatment is guaranteed. This does not always apply to older schoolchildren and adolescents, who must of course first and foremost be involved themselves. It is not always easy to convince young people in particular of the necessity of compression therapy.

For all age groups, it is very helpful if the compression clothing meets certain "fashion" requirements. If the children or young people can help design the compression garment themselves, the reasons for wearing it can also be conveyed when discussing the topic of customisation.

For which wounds is compression recommended in follow-up treatment?

We recommend wearing compression garments for all wounds that have taken more than two weeks to close and after each skin transplant, regardless of its extent and location.

How important is fit in terms of functionality for children?

The smaller the child, the more frequently the compression garment has to be adjusted. The more active the child, the more frequently it has to be renewed. We do like frayed compression gauntlets, for example. This is after all certain proof that they have been worn regularly.

How long should compression be worn?

Compression garments should be worn until the scar maturation is complete. Scar maturation is complete when the scar is no longer red and thickened. For children and adolescents, this is usually the case after 12 to 18 months.

How do you assess the role of compression garment technicians?

In a multi-professional team consisting of medical and psychological specialists, nursing staff, teachers and specialists from the field of occupational therapy and physiotherapy, support garment technicians play an important role. They are a crucial part of the team — according to the motto: together we are strong.



With "Julius – the little helper", Juzo helps affected children and their parents through the difficult time caused by scar therapy. Various therapy-supporting measures encourage children and specifically promote their compliance with the therapy. For example, colourful Julius iron-on patches accompany the little ones during their compression therapy.

Summary

In modern scar therapy, medical compression allows for a differentiated approach with a variety of materials available on the market. State-of-the-art variants offer a wide range of possible applications. The advanced technologies allow precise adaptation to various scar conditions from postoperative fresh scars to hypertrophic scars and keloids. The integration of silicone into compression materials not only ensures optimal pressure but also hydrates and softens the scar at the same time. Advances in technology have also led to thinner, more breathable compression materials, improving wearing comfort and patient acceptance. Modern medical compression in scar therapy thus provides a holistic approach with a wide range of material options tailored to the individual needs of the person to be treated.

Final question to Univ. Prof. Dr. med. Lars-Peter Kamolz

Looking to the future, what do you think about new forms of therapy and the role of compression in scar therapy?

In recent years, we have gained a much better understanding into the process of wound healing, including scar formation and maturation. This will allow us to intervene in these processes in a more targeted manner and to influence wound healing and scarring. Even now, new forms of therapy as well as new dressing and skin substitute materials exist, which intervene in these processes in a targeted manner and improve wound healing. This will lead to significantly more importance being attached to scar avoidance or scar reduction. But despite these new forms of therapy, compression therapy will continue to play a major role in scar treatment in the future.

Further reading with core message

DeBruler DM, Baumann ME, Zbinden JC et al. Improved Scar Outcomes with increased daily duration of Pressure Garment Therapy. Adv Wound Care (New Rochelle). 2020;9(8):453-461. doi.org/10.1089/wound.2020.1161

"Compression should be used all day, but even with eight hours of use shows a significant improvement compared to no therapy."

De Decker I, Beeckman A, Hoeksema H et al. Pressure therapy for scars: Myth or reality? A systematic review. Burns. 2023;49(4):741-756. doi.org/10.1016/j.burns.2023.03.007

"Pressure therapy for scars has been shown to be effective in improving the appearance and symptoms of scars."

Kim JY, Willard JJ, Supp DM et al. Burn Scar Biomechanics after Pressure Garment Therapy. Plast Reconstr Surg. 2015;136(3):572-581. doi.org/10.1097/PRS.000000000001507

"Compression is effective in the reduction of scar contracture."

Monstrey S et al. Updated Scar Management Practical Guidelines: Non-invasive and invasive measures. Journal of Plastic, Reconstructive & Aesthetic Surgery. 2014;67(8):1017-1025. doi.org/10.1016/j.bjps.2014.04.011

"Compression therapy is indicated for extensive scars, especially after burns."

Nast A, Gauglitz G, Lorenz K et al. S2k guideline Treatment of pathological scars (hypertrophic scars and keloids) - Update 2020. J Dtsch Dermatol Ges. 2021;19(2):312-327. doi.org/10.1111/ddq.14279_q

"The S2k guideline for the treatment of pathological scars recommends the use of compression therapy as part of the treatment approach for hypertrophic scars and keloids."

Téot L, Mustoe TA, Middelkoop E, Gauglitz GG, eds. Textbook on Scar Management: State of the Art Management and Emerging Technologies. Cham (CH): Springer; 2020

"This textbook provides a comprehensive overview of current techniques and advances in scar treatment."

Van den Kerckhove E, Anthonissen M. Compression Therapy and Conservative Strategies in Scar Management after burn injury. In L. Téot (Eds.) et al., Textbook on Scar Management: State of the Art Management and Emerging Technologies. (pp. 227–231). Springer. https://pubmed.ncbi.nlm.nih.gov/36351148/

"Compression and silicone are the procedures described with the most evidence for the conservative therapy of (burn) scars."

Wiseman J, Ware RS, Simons M, et al. Effectiveness of topical silicone gel and pressure garment therapy for burn scar prevention and management in children: a randomized controlled trial. Clinical Rehabilitation. 2020;34(1):120-131. doi. org/10.1177/0269215519877516

"Silicone and compression are not in doubt. In combination, the methods do not show any superiority over their individual application."

Juzo – competence for over 100 years

Julius Zorn GmbH is a specialist in compression products based in Aichach, Bavaria, Germany. The company was founded in 1912 and is now one of the leading manufacturers of medical compression garments. It has many years of expertise in the development and manufacture of high-quality compression garments for various medical applications.

Juzo offers sophisticated compression products from head to toe, developed in accordance with medical standards and in close cooperation with medical specialists. In addition to this know-how, innovative technologies, state-of-the-art machinery and advanced materials are used in production. This results in products that set standards in terms of quality, comfort and effectiveness. Patients appreciate Juzo's medical aids in particular for their fit and the associated wearing comfort.

In addition to various versions of Juzo Comfort knitted fabric, garments such as the Juzo ScarPrime Light, the seamless Juzo ScarPrime Seamless gauntlet and various silicone products are also used in scar therapy.

The history of Juzo

Watch this video on traditional craftsmanship and state-of-the-art high-tech to get an interesting insight into the 100-year corporate history of Juzo — and what drives us every day. You can find the film online at **juzo.com/history**.









Further information is available at **juzo.com**

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