Tissue congestion
Lymphoedema, lipoedema

What you ought to know. What helps
A guide from medi
Dear Reader,

You’ve had an operation, hurt yourself, an insect has bitten you, or your ankle, arm or leg is suddenly thick and swollen for no apparent reason. Treatment with an ointment, a dressing and some rest usually helps to reduce the swelling, but not always! There are swellings that tend to get worse. They can have different causes. The most common is a disease of the lymphatic system called “lymphoedema”. There is a tremendous need for information. According to cautious estimates about three million people in Germany alone are affected by lymphatic diseases.

Another form of oedema is caused by a disturbance of fat distribution, usually over the thighs and calves, the arms are often affected as well. Those who are affected by this so-called “lipoedema” usually know little about it. They feel neglected and unsuccessful diets often accompany their suffering. This guide takes a look at lymphoedema and lipoedema. Both forms of oedema are chronic, but respond well to today’s therapy. This guide will provide you with all the basic information, and shows you how effective treatment can look.

Your medi Lymphology team
The Lymphatic System

Lymphatic vessels cover the human body like a net. They collect, transport, and filter “waste products” such as protein, metabolic waste or inflammatory products in the body fluids.

In addition to the blood circulation, our body has a second, equally important, transport system – the lymphatic system. In contrast to the blood vessel system, which forms a closed circuit (circulation) with arteries and veins, the lymphatic system is a semi-open system.

Like a “special waste disposal service”, the lymphatic system transports up to four litres of lymph every day out of the tissues – this being a mixture of protein, metabolic waste, inflammatory products, fat and water.
1. **Lymph nodes**
Store and filter lymph on the way to the blood circulation. The lymph is checked here for substances that could be harmful to the body. Swollen lymph nodes are a sign of an inflammation in the body. The lymph nodes play an important role in the body's immune system because they produce white blood cells (lymphocytes). They are also responsible for producing antibodies.

2. **Capillaries**
Like "waste disposal units", these take up lymph from the tissues under the skin.

3. **Lymphatic trunks**
(main collecting vessels)
Transport the lymph into the "venous angle".

4. **Venous Angle**
Where the lymph finally re-enters the blood circulation, into the venous system.

5. **Pre-collectors**
Follow the capillaries. They transport lymph to the larger collecting vessels.

6. **Collectors**
These are the actual transport vessels for lymph, the "waste transporters" of the lymphatic system. They have muscles in their walls and valves that guide the lymph in the right direction.
Andrea, 37
The face of mediven® mondi

The mother of two small children was going up the stairs about three years ago when she suddenly had a sharp pain in her abdomen and started bleeding. It was only after consulting various doctors that her gynaecologist diagnosed cancer of the cervix.

She had an operation straight away, followed by chemotherapy and radiotherapy, but then the circumference of her left leg started to increase sharply. Thanks to intensive therapy with manual lymphatic drainage, compression and mobility exercises, she can keep the oedema under control.

“Why do I wear mediven? My oedema is reliably controlled, and if I need an even stronger ‘wall effect’ later on, I’ve still got mediven 550 as an even more effective treatment option!”

Her garment is called mediven mondi, one-legged panty, CCL 3.
Lymphoedema

If the lymphatic system is disturbed, the lymph fluid can no longer flow back quickly enough. The fluid accumulates in the tissues. This is usually visible as a skin-coloured, painless palpable swelling. Doctors call this ‘lymphoedema’.

Disturbances of the lymphatic system can be congenital (primary lymphoedema), or the result of an operation, radiotherapy, infections or injuries (secondary lymphoedema).

In many cases, only one limb is affected. However, it may involve several limbs, the face, the torso or even internal organs.

Secondary lymphoedema is divided into the rarer malignant form and benign lymphoedema.

Lymphoedema is a chronic disorder which affects women more often than men.

Diagnosis: lymphoedema

Only an expert can determine whether you are actually suffering from lymphoedema or not. The specialist can usually tell what sort of oedema it is after taking your medical history and giving you a thorough examination.

If your diagnosis is unclear, and in order to rule out malignant processes, modern imaging techniques such as ultrasound, fluorescence technique. Indirect lymphography, lymphoscintigraphy and, the very latest, a fusion of PET (Positron-Emission-Tomography) with MRI (Magnetic Resonance Imaging) and CT (computed tomography) may be used.

If you notice a suspicious swelling, do not wait too long. Go to your specialist.
Stages of the disease

The course of the disease is divided into different stages:

**Stage 0**
The lymphatic vessels are damaged, but there is not yet any visible swelling.

**Stage 1**
The swelling is only seen in the evening and it disappears when the affected arm or leg is elevated.

**Stage 2**
The swelling is permanent and the tissue begins to harden.

**Stage 3**
The skin over the complicated swelling begins to change, e.g. it develops blisters, fistulas or wart-like structures.
The most severe form of lymphoedema is „elephantiasis“. Untreated lymphoedema does not only result in hardening (fibrosis) of the tissues, common complications also include fungal skin infections and erysipelas.
Checkup

Lymphoedema - yes or no?

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is your skin smooth and swollen?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does the swelling affect one leg, one arm only?</td>
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<td></td>
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<tr>
<td>Did you have an operation or radiotherapy before the swelling started?</td>
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<td></td>
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<tr>
<td>Did you injure that part of the body?</td>
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<td></td>
</tr>
<tr>
<td>Are the backs of your hands or feet swollen?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are your natural skin folds deeper?</td>
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</tbody>
</table>

Now try and lift up a fold of skin up from a finger or toe of the affected arm or leg. (Stemmer’s sign)

**You can’t do it?**
This is what we call a “positive Stemmer’s sign”.

**You can do it?**
But you answered ‘Yes’ to four of the six questions on the left? Then you should still consult your doctor to rule out the possibility of lymphoedema.

**Information**
• 82 % of all patients with lymphoedema have a positive Stemmer’s sign
• 77% show deepened natural skin folds
• 63% of all patients have swelling over the back of the foot

“Positive Stemmer’s sign”
Source: Lymph-Opt, Dr. Schingale
Therapeutic measures for lymphoedema

Principles of therapy
It’s a fact: you can only prevent your disease worsening by sticking rigidly to your treatment. Complex physical decongestion therapy (CPD) has proved very successful and become established in the treatment of lymphoedema.

This acts, for example in the
• drainage of lymphatic congestion
• restructuring of changed, hardened connective tissue
• activation of the lymphatic system

CPD is divided into two phases:

Phase I
the decongestion phase
• Hygiene/skin treatment
• whole-body manual lymph drainage
• compression therapy with bandages
• special gymnastic exercises

Phase II
the maintenance phase
• Hygiene/skin treatment
• whole-body manual lymph drainage
• compression therapy with compression stockings
• special gymnastic exercises
Details of treatment

The following sections provide further details of the individual therapeutic measures so that you will know what to expect.

Hygiene/skin treatment
At the start of treatment, skin problems such as cracked skin and athlete’s foot will be thoroughly treated. Careful hygiene and skin care is important. Only pH-neutral cleaning products and creams should be used.

Manual lymph drainage
The central component of decongestion therapy is manual lymphatic drainage. Lymph drainage is no ordinary form of massage! The therapist uses special techniques known as stationary circles, pumping, scooping and rotaries to stimulate the lymph vessels. The body is drained, first in the area of the neck and upper quarters of the body, to create a suction effect on the lower lymphatic vessels.
Oedema fluid is then displaced from regions of high to regions of low oedema and pressed into the lymphatic vessels. This loosens the hardened connective tissue.

Important: the patient’s bandages must be replaced after each session of lymph drainage.
Compression bandaging
A compression bandage exerts pressure on the muscle bodies (deep action, no loss of muscle tissue!), assists in decongestion, promotes lymph drainage during movement, and prevents lymph from flowing back into the affected parts of the body. The correct bandaging technique and padding under the bandage is important. The bandage must not constrict or obstruct the flow and must not restrict the mobility of the joints too much. You yourself can also contribute greatly to the success of this therapeutic measure by wearing the bandages consistently and by doing the special exercises.

Special Exercises
Experts have developed various exercise programmes depending on which part of the body is affected by the lymphoedema. The simple exercises are performed with the compression bandages in place.

Once you know the exercises you should incorporate these into your daily routine. The rule of thumb for this physiotherapy is that it is better to exercise little and often and to avoid overexertion.
Summary of treatment for lymphoedema

Step 1
Skin care/wound care. Depending on the stage of the disease the skin over the affected areas is treated to prevent fissures and fungal infections. Open wounds are also treated.

Step 2
Lymphatic drainage: The goal of this special form of massage is to encourage the lymphatic vessels to drain off accumulated fluid (lymph). For this the therapist also applies special techniques to soften any possible hardened tissues.

Step 3
Compression therapy: During the decongestion phase the affected parts of the body are bandaged, often using special pads (mediven Lymphpads), which are intended to improve the microcirculation in the affected tissues and promote lymphatic return. During the maintenance phase, compression dressings are replaced by compression stockings (for instance mediven® mondi, mediven 550 leg), which are easier to handle. The specialist will decide on the compression class and type of care provided.

Step 4
Exercises. Special exercises promote lymphatic return. Exercise programmes have been developed separately for lymphoedema of the arms and legs.

Definition
Lymphoedema is a chronic disease. However, it can be effectively treated. The earlier it is identified the better.
Tissue congestion • Therapeutic measures for lymphoedema • 17
Sandra, 31
The face of mediven® esprit

Sandra has suffered from lipoedema since puberty. It all began with a very painful sensation in her calves, it felt like they were going to burst. In spite of participating in sports and following a healthy diet, her arms and legs put on a lot of weight. Then about seven years ago, she met two women who worked at medi. They put her into contact with medical specialists. Thanks to strict compliance with therapy, a balanced diet and sports together with liposuction, she was able to lose almost 30 kg and keep her pain at a tolerable level.

“Why do I wear mediven? Because mediven reliably maintains the success of my treatment, which I worked so hard for, and I simply feel better!”

She wears a mediven mondi esprit, CCL, on her arm and she relies on a CCL 2 mediven 550 leg for her leg.
Lipoedema

Lipoedema is a disorder of fat distribution. In most cases, it appears on the thighs and calves, this is also called the saddlebag syndrome. In many cases, the arms are affected as well. Oedema develops during the second half of the day. Pain to touch is typical of lipoedema.

Lipoedema is usually a chronic, hereditary disease
- Almost all those affected by lipoedema are women
- The disease usually starts towards the end of puberty or during pregnancy
- There is almost always a family history of the disease which is why scientists suspect hormonal causes. However, these have not yet been confirmed
- The number of fat cells is higher than the one of normal persons.

Lipoedema changes the shapes of the legs symmetry. They are painful on light pressure.
Stages of the disease

Stage 1
“Orange peel skin”, fine, nodular skin surface

Stage 2
“Mattress skin”, coarse, nodular skin surface with larger dimples.

Stage 3
Large, deforming fat masses.
The disease first appears around the hips, later on the whole thigh becomes involved. If the fatty masses occur on the inside of the knee inflammation may be caused by chafing when walking. Advanced lipoedema impedes both the return of blood through the veins and lymphatic drainage through the lymphatic system.

Untreated lipoedema can spread from the hips (“saddlebag hips”) and the inside of the knee right down to the ankles (“drawstring trousers”).

Source of all photographs: Lympho-Opt-Clinic, Hohenstadt
### Checkup

**Lipoedema – Yes or no?**

Look very carefully at the affected limbs. In lipoedema ...

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do the legs show symmetrical changes, i.e. are both legs or arms affected equally by the swelling?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are the backs of the hands or feet free from swelling?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have fatty pads over your hips (saddlebags) and the inside of the knee?</td>
<td></td>
<td></td>
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<tr>
<td>In advanced disease the complete leg is affected down to the ankle (drawstring trousers).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you get large haematomas (bruises) easily without any real injury or spider veins?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are your legs already painful to light pressure?</td>
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</tbody>
</table>

If you answer ‘yes’ to at least one question, please consult a specialist!

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**Lipoedema**

(Source: Lympho-Opt-Clinic, Hohenstadt)
Treatment options

Lipoedema is not due to fat pads caused by excess weight and they cannot be counteracted by dieting. However, weight reduction in combination with sport (with compression) does have positive effects.

You should avoid putting on weight at all costs. People with lipoedema who are overweight must try and reduce their Body Mass Index (BMI) to between 19 and 25 (in most of the cases).

The BMI is calculated as follows:

$$\text{BMI} = \frac{\text{body weight}}{(\text{height in m})^2}$$

**Diet as therapy?**
Many of those affected already have a number of diets behind them. But even extreme fasting diets don’t change the leg circumference of lipoedema patients. Medicines offer just as little hope as sport does on its own. But the following pages will show you how the condition can be successfully treated. One very important part is the change in nutrition.

Lipoedema does not respond to medicines or ointments.

**Important:**
Never partake in sports without compression!

Sport is useful, but without compression the girth of the legs would simply increase even further due to increased muscle mass. The following sports are recommended: Nordic walking, power walking, leisurely walking, rambling, aerobics, aquajogging and swimming (the water pressure has positive effects).

Operations to remove fat (lymphological liposuction) are possible. However, these operations must be performed by an experienced lymphologist! Before liposuction it is essential to determine whether the lymphatic system is already affected by the disease.

Lipoedema is not caused by an incorrect diet. Experts suspect hormonal causes. Isolated bouts of fasting do not reduce the girth of the legs, but they do make the tummy slimmer.
Conservative lipoedema therapy

For lipoedema, specialists recommend combined therapy with compression and exercise, in severe cases (stage 3) after lymphatic drainage.

In stage 1
Circumferential compression stockings (seamless) can often be used, e.g. mediven forte (still suitable for stage 1 lymphological indications). However, in most cases flat-knitted compression garments are usually advisable, e.g. mediven mondi. These also have to be worn during sporting activities!

In stage 2
Flat-knitted compression stockings (with seam) are recommended, e.g. mediven® 550, which should be worn every day.

In stage 3
And for lymphoedema, complex physical decongestion therapy (CPD) is indicated to reduce the liquid, but also in stage 3 compression the main therapy.

In addition, infra-red therapy can improve the microcirculation in the vessels of the subcutaneous fatty tissues. Controlled weight loss also has positive effects in overweight patients and gives a small reduction of the circumference.
Phlebolymphoedema

Venous lymphoedema
The blood circulation and lymphatic systems in the human body are in a delicate balance. If the venous system is damaged, this almost always has effects on the lymphatic vessel system. For example, serious venous inflammation can cause inflammation of the lymphatic vessels (colloquially known as “blood poisoning”). A deep vein thrombosis could also permanently damage the deep lymphatic vessel system.

The therapy here is similar to that for lymphoedema with a combination of skin care, lymphatic drainage, compression therapy and a special exercise programme.

Venous lymphoedema is lymphoedema caused by venous disorders. It may be caused by serious venous inflammation, thrombosis, or even pronounced varicose veins.

Lipolymphoedema

When the fatty tissue keeps on growing, some women develop, in addition, lymphoedema – specialists call this lipolymphoedema.

Injury to the lymphatic vessel system is recognised when the foot and toes swell up (positive “Stemmer’s sign”).

The treatment is the same as for lymphoedema: with a combination of skin care, lymphatic drainage, compression therapy and exercises. This is always backed up by a changing of nutrition.

In lipolymphoedema, the transport capacity is going down and leads to a lipoedema.
The treatment is the same as for lymphoedema.
mediven® –
The brand in oedema therapy

Certain types of swelling don’t heal by themselves – on the contrary, they grow progressively worse. Such congestion can have a number of causes.
A garment that is suitable for everyday use, fits perfectly, and is as effective as possible is specially important for people who wear stockings for lymph- and lipoedema.

mediven compression garments are produced individually. The variety of medi compression garments helps to improve patient compliance and increases the quality of life.
mediven®
esprit

Discreet elegance with a soft sheen.

Armsleeves and hand parts for the reliable treatment of oedema. Many different styles with a range of attachment options for individual garments. Snug, active-breathing and elastic two-way knit ensures wearing comfort. High-tech yarn ensures a lower uptake of moisture and dirt particles and optimum pressure stability all day long. Premium quality with discrete elegance and a soft sheen.

Indications
• Primary and secondary lymphoedema stages I and II
• Lipoedema stages I and II
• Postoperative and post-traumatic oedema
• Keloid garments, e.g. after burns
Compression class
Made-to-measure: CCL 1, 2, 3

Available variants
• Colours: sand, caramel and black
• 8 different lengths from long glove to arm bandage
• 5 different hand parts from hand part without fingers and with thumb opening to completely closed glove
• Attachment options: shoulder strap, bra attachment and topband border

Features
Clima Comfort
Perfect Fit
Variety

Particularly flat seams
Individually and anatomically produced seamed garments
Anatomical elbow and shoulder border
Quality tested to Oeko-Tex Standard 100
Incorporation of pads, Lymphpads, zippers or Velcro fasteners possible
One- or two-part styles possible (glove and armsleeve knitted together or separately)
Suitable for the delicates programmes of washing machines and dryers
Soft surface that glides easily over the skin and fits snugly
Gently shimmering colours lend elegance and attractiveness

Tissue congestion • mediven models • 29
mediven®
550 Arm

The specialist for all forms of oedema.

The seamed arm stocking with a hand section is made up to individual anatomical requirements. It ensures reliable oedema therapy and features particularly flat seams and an anatomically shaped elbow and shoulder topband. Powerful, active breathing and elastic two-way stretch knit maximises wearing comfort and pressure stability all day long.

Indications
- Primary and secondary lymphoedema stages I, II and III
- Lipoedema stages I, II and III
- Postoperative and post-traumatic oedema
- Keloid garments, e.g. after burns
Compression class

Made-to-measure: CCL 1, 2, 3

Available variants

• Colours: sand, caramel and black
• 8 different lengths from long glove to arm bandage
• 5 different hand parts from hand part without fingers and with thumb opening to completely closed glove
• Attachment options: shoulder strap, bra attachment and topband border

Features

Clima Comfort

Perfect Fit

Variety

Anatomical borders

Also recommended for the most severe forms of oedema or lax connective tissues

The high-tech yarn absorbs even less moisture and dirt

Quality tested to Oeko-Tex Standard and therefore especially skin friendly

Incorporation of pads, Lymphpads, zippers or Velcro fasteners possible

One- or two-part styles possible (glove and armsleeve knitted together or separately)

Suitable for the delicates programmes of washing machines and dryers
Experience the new flat-knitted model from mediven – particularly gentle and close fitting. Unique wearing comfort, especially soft and soothing. Soft, active breathing and elastic two-way stretch knit ensures pleasant wearing comfort. Antibacterial yarn prevents colonisation by bacteria and other micro-organisms.

**Indications**
- Primary and secondary
- Lymphoedema stage I
- Lipoedema stage I
- Post-operative and posttraumatic mild oedema
- Management of keloid, e.g. after burns
Compression class
Maß: CCL 2

Available variants
• Available in standard colours Sand, Caramel and Black
• As a knee sock, thigh-length stocking with top-band, pantyhose and men’s leotard

Features
Clima Comfort
Clima Fresh
Perfect Fit
Variety

Numerous extras if desired: knitting marks over the instep, at the knee and the thigh for an optimum fit

Pleasantly soft, pressure relieving toe section with the usual anatomical border

Clima Fresh in the whole leg reduces the danger of skin infections

Recommended for firm connective tissue
The gentle line for oedema up to stage II.

The sheerest seamed stocking for first-time users and patients with mild oedema. Individual anatomical manufacture makes it possible to supply a number of special versions. The fine, active-breathing and elastic two-way knit, ensures wearing comfort and optimum pressure stability all day long. Antibacterial yarn prevents colonisation by bacteria and other micro-organisms and therefore minimises the risk of skin infections (e.g. erysipelas and athlete’s foot).

**Indications**

- Primary and secondary lymphoedema stages I and II
- Lipoedema stages I and II
- Postoperative and post-traumatic oedema
- Keloid garments, e.g. after burns
- Severe phlebological indications
Compression class

Made-to-measure: CCL 1, 2, 3

Available variants

- Standard colours: sand, caramel, black, and the trend colours navy, anthracite and brown
- Available as knee stocking, above-knee stocking, thigh-length stocking with topband or waist attachment, pantyhose and other special variants

Features

- Clima Comfort
- Clima Fresh
- Perfect Fit
- Variety

Numerous extras on request: knitting marks over the instep and at the thigh for the perfect fit.

Zippers and Velcro fasteners can be incorporated in the seam.

Anatomically formed panty top and stocking topband

Quality tested to Oeko-Tex Standard and therefore specially skin friendly

Clima Fresh in the whole leg reduces the danger of skin infections

Recommended for firmer connective tissues

Tissue congestion • mediven models • 35
mediven®
550 Leg

An almost unlimited variety for all forms of oedema.

These individually and anatomically produced seamed garments are particularly suitable for the treatment of oedema. As with the mediven mondi, the convincing features are wearing comfort, maximum compression stability throughout the day, and the wear-resistant quality. Its strength: the extreme variety

Indications
• Primary and secondary lymphoedema stages I, II and III
• Lipoedema stages I, II and III
• Elephantitis
• Marked venous problems
• Severe venous dysfunction, after healing of ulcers and thromboses
• Postoperative for keliod treatment
Compression class
Made-to-measure: CCL 1, 2, 3, 4

Available variants

• Standard colours: sand, caramel, black, and the trendy colours navy, anthracite and sienna
• Available as sock, knee stocking, above-knee stocking, thigh-length stocking with topband or waist attachment, pantyhose, maternity pantyhose, men’s leotard and other special variants such as cycling shorts or leggings

Features

Clima Comfort
Clima Fresh

Perfect Fit
Variety

As well as the extras such as reinforcements at the instep, knee and thigh, this version offers different leg lengths front and back and soft toes

Zippers and Velcro fasteners can be incorporated in the seam

Incorporation of pads and Lymphpads

Chafe- and wear-resistant flat seam

Anatomical borders

Powerful, active breathing knit for pleasant wearing comfort

Quality tested to Oeko-Tex Standard and therefore specially skin friendly

Wash-and-wear (suitable for the delicates programmes of washing machines and dryers)
What you need to know about compression therapy

The right specialist retailer
First the right diagnosis, then the right stocking.

Your doctor will give you a prescription for your compression stockings. He will decide on the type of garment (e.g. stocking, pantyhose, armsleeve) and the compression class.

The right stockings are normally made to measure for patients with oedema.

Choose a specialist retailer who specifically advertises compression stockings- you will then be served by experienced and trained staff.

You will also recognise a good specialist retailer by
• wide-ranging advice
• the staff will take careful measurements along the decongested limb
• (Tip: it’s best to take the measurements in the early hours of the morning or after manual lymphatic drainage).

See www.medi.de in the section ‘Finding a specialist retailer’ for a wide selection of specialist retailers.

• information and practical extras that make your life easier, e.g. donning and doffing aids (medi Butler, medi 2in1, medi Butler Off), care products (medi day, night, soft and fresh) etc.
Modern compression stockings are extremely durable. They have to be as they’re worn every day.

Flat-knit mediven compression stockings can and should be washed in the washing machine - best in the mediven laundry net.

Make sure you use the delicates programme at 40°C every day. Flat-knit compression stockings can also be dried in the dryer using the delicates programme.

But you must not dry them on a radiator or heater. It’s better to pull the stockings carefully back into shape after washing, spread them out carefully, and leave them to dry (perhaps on a clothes-horse).

The garment may also be wrapped in a towel and carefully pressed dry.

Please never use fabric softeners. Make sure that all the fasteners are closed.

medi clean – special hand wash liquid.
Use the special washing liquid to care for and treat your mediven compression stockings with the utmost care.

medi clean – ideal for the daily wash!
Add 1 cl washing liquid (about 1.5 tablespoons) to 2 litres of lukewarm water. After the hand wash, rinse the compression stocking thoroughly in clean water and dry.
medi skin care

The care experience for all the senses

The classic skin care product from medi - individually matched to your compression therapy.

medi day – day time care gel
• deep-acting care for smooth skin and your veins
• refreshing cooling action
• reduces the feeling of tension and the sensitivity of the skin
• apply a few minutes before donning the compression stocking.
• with horse chestnut for firmer venous walls, menthol for more freshness and witch hazel for stable tissue structure.

50 ml Tube/150 ml bottle /500 ml bottle

medi night – night time care cream
• Helps your skin to recover overnight from the stresses of compression therapy
• Apply in the evening after taking the compression stockings off
• With jojoba oil – for a soothing action on the outer skin layer.

50 ml Tube/150 ml bottle
**medi fresh – cooling spray**
- The refreshing kick for out and about
- Apply several times a day as required
- Spray directly onto the stocking
- With menthol for extra freshness

100 ml bottle

**medi soft – cream foam**
- Moisturising skin care in harmony with your compression stockings
- Rapidly and completely absorbed
- Compression stockings can be put on straight away
- Provides additional grip for compression stockings with a topband

125 ml bottle
Tips for oedema patients

Important information for you:

1. Clothing and jewellery
Articles of clothing shouldn’t be too tight and certainly shouldn’t constrict you, e.g. bras, corsets, body stockings.
Do not wear a wristwatch or any jewellery on the affected arm.

2. Artificial breasts
Wearing a light breast prosthesis may help.

3. Mood
Avoid stress at all costs because this causes the vessels to constrict or even go into spasm.

4. Injuries, skin and nail care and medical advice
When doing the housework or working in the garden wear gloves if possible to prevent injuries.
Avoid abrasions, cuts, scratches and bites by domestic animals.
When cutting and filing your nails make sure you don’t injure the groove of the nailbed.
Make sure you care for your skin regularly, e.g. with medi day, night, soft & fresh.
Do not allow anyone to take blood pressure measurements or give you acupuncture, injections or heat treatment on the affected limb.

5. Diet
Make sure you eat a balanced diet and plenty of fibre, e.g. wholemeal products, salads, fruit and vegetables.
Drink at least 2 litres a day. Preferably unsweetened drinks, mineral water or tea.

6. Holiday and warmth
Avoid holidays to very warm or even subtropical regions.
Avoid high temperatures, e.g. sauna, sunbathing and hot baths.
Tissue congestion • What you need to know about compression therapy • 45
How do I put my stocking on?

Whenever possible, wear rubber gloves when putting your compression stocking on. Always take off your watch and jewellery to avoid damage to the knit.

The rubber gloves help to grip the fabric and make it much easier to hold and put on the stocking.

When putting on the stocking, avoid overstretching it by pulling it too hard, as it will then not fit your leg properly. As a consequence, the pressure distribution will not be correct and the stocking will slip down like an elastic band and gather around the back of your knee. This can lead to constriction.

1. Reach into the stocking with the rubber glove and grasp the heel.

2. Turn the stocking inside out at the heel.

3. Put your foot into the stocking and pull the stocking through down to the base of the heel.

4. Grip the upper layer of material at about the middle of your forefoot.
5. Pull it up over the foot to your heel.

6. Again grip the hanging fabric with both hands.

7. Pull the fabric evenly over your calf.

8. Pull the stocking step by step up to the knee.

9. Grasp the fabric again and pull it up over your knee.

10. Check that the whole stocking or pantyhose fits properly.
Donning and doffing aids • Tissue congestion
Putting on stockings with the medi Butler as easy as abc
The patented donning aid has been developed specially for less mobile patients. The medi-butler stretches the fabric for you, making it much easier to insert your foot. You then pull on the handles gently to bring the stocking up to the knee. Several different models of the medi Butler are available, and can be prescribed by your doctor if indicated.

medi 2in1 – donning and doffing aid
Wearers of compression stockings will be surprised by how easy it is to use. It is a type of scarf made of material similar to balloon silk. Thanks to the specially thin, smooth material, the knit of the compression stocking glides up over the instep and the heel almost by itself. The stocking can be put on and taken off with far less effort. Once the stocking is on, the medi 2in1 can be pulled out effortlessly. Regardless of the shoe size, the medi 2in1 makes it easier to put on and take off closed-toe stockings of all lengths and sizes. It is also suitable for putting on and taking off armsleeves. What’s more, the medi 2in1 is so compact that it can be taken anywhere, anytime. Visit www.medi.de to see a short film demonstrating how astonishingly easy medi is to use.
1. Place the compression stocking in the stirrup. The toe of the stocking is facing forwards, the heel is facing you. Turn the top of the stocking outwards over the frame.

2. Carefully slide the stocking down over the stirrup until the heel appears over the edge of the frame.

3. Now place the medi Butler on the floor. Slip your foot, toes first, into the tip of the stocking. Lean against something firm (e.g. table, wall) while you do so.

4. Now step into the rigid stand. Please check that the toe and the heel are correctly positioned.
5. By pulling alternately on the handles you can now comfortably slide the stocking up towards your knee.

6. When the stocking is just below the knee, tilt the medi butler slightly backwards and remove it from the stocking.

7. To finish, smooth the compression stocking upwards evenly. Please make sure you ease the stocking up bit by bit without gathering it up or pulling on the top.
medi Arm Butler

1. Stand the medi Arm Butler on a table or similar surface.

**medi Tip:** Lay a non-slip surface (e.g. a sponge or rubber mat) under the medi Butler.

2. Slip the armsleeve over the semicircular cylinder. Please make sure that the seam is not exactly in the middle, but slightly off to one side.
   Armsleeves for the right arm – off to the right at about 4 o’clock.
   Armsleeves for the left arm – off to the left at about 8 o’clock.

3. Now lay the Arm Butler flat. Place the front bracket so that it is lying against the front side of a table for stabilisation.
4. Gently push the affected arm into the armsleeve opening whilst supporting the fabric with the other hand.

5. Now slide your arm smoothly into the armsleeve without twisting it.

6. Check once again that the armsleeve fits properly and, if applicable, then turn up the topband or attachment.
Overview
medi Butler

medi Butler with long handles
The long handle ensures maximum stability when putting on compression stockings and pantyhose.

medi Big Butler
Thanks to the larger diameter of the stirrup the medi Big Butler is easier for use for legs with larger circumferences.

medi Butler with variable handles
Adjustable handle length (about 27 to 59 cm) for individual adjustment to your height.

medi Butler for pantyhose
The second stirrup makes it possible to slip into both legs of the pantyhose effortlessly at the same time.
medi Reha Butler
The new folding mechanism allows the stocking to be put on without having to point the toes.

medi travel Butler
The ideal travelling companion. Can be dismantled to its individual parts, includes practical travelling bag.

medi Butler with short handles
Perfectly suited for donning armsleeves thanks to the short handle.

medi Arm Butler/ medi Arm Big Butler
This Butler helps you put on armsleeves without assistance. You can choose between 2 sizes, depending on the circumference of your arm.
The right prescription

Talk to your doctor about the prescription of the medi Butler. It is specially suitable for patients with venous disorders and limited physical strength or mobility (e.g. with osteoarthritis or rheumatism), to help them maintain their independence.

Indications for medi donning and doffing aids

• Deforming diseases in the hands and wrists
• High-grade inflammatory/erosive joint diseases
• Extreme overweight
• Paralysis
• After injuries and amputations
• Pronounced spinal/hip/knee stiffness
Glossary

**Lymph**
Latin: lympha, clear water. A pale yellow fluid produced when blood plasma passes through the blood vessel walls into the tissues.

**Lymphatic vessel system**
A drainage system in parallel with the venous system – not a closed circuit. Its primary purpose is the return transport of proteins and other substances that cannot be returned in the venous blood. The system consist of lymphatic vessels, lymph nodes and the spleen.

**Lymph nodes**
Small nodules interspersed throughout the lymphatic vessels. Function: to filter out foreign substances such as bacteria and poisonous compounds (toxins).

**Lymphoedema**
Lymphoedema is a disorder of the lymphatic system. The lymphatic vessels function like little hearts. They pump the lymph, which the veins leak out to supply the tissue cells, back into the venous system. If the lymphatic system is damaged the fluid stays where it is. Proteins and waste products lead to hardening and swelling of the tissues. The legs or arms increasingly swell up.

**Made-to-measure compression hosiery**
Compression stockings are made to measure in order to match exactly the individual circumferences and lengths measured for the particular patient.

**mediven**
The mediven brand stands for high-quality products in the field of complex compression therapy. These include compression stockings, skin care articles, products for promoting therapy, and donning and doffing aids.

**Oedema**
Accumulation of fluid in the tissues.