Advice on back therapy

Information brochure and exercises
Driving the future in compression therapy

**Strong global brand. A comprehensive product range. Convincing concepts.**

medi’s World of Compression: signpost to the future with 65 years’ competence in the field of compression. Your partner for the highest demands on quality, innovation and design. Let’s shape the future together and create positive experiences – for you and your patients.

Safety, stability and perceptible relief

**Soothing and effective treatment with products that combine tried-and-tested medical efficacy with special comfort in wear.**

With medi’s range of supports, you offer your patients the right solution for many indications. medi supports are matched to your patients’ needs to the last detail. They promote proprioception and support the healing process. New technologies and numerous comfort features ensure that patients are happy to wear the support regularly – that little extra for treatment compliance and long-term satisfied users.
Why your back hurts

Neck pain, low back pain, sciatica, lumbago or a slipped intervertebral disc – hardly any other form of pain is as widespread and has so many facets as back pain.

Lack of physical exercise and one-sided everyday stresses and strains throw your back musculature off balance. Muscles shorten or become lax. The spinal column is destabilised and develops curvatures. The pelvis tilts, individual joints between the vertebrae become wedged and lock up. In many cases, all it needs is a single wrong movement to lead to nerve irritation. Emotional tension can also put stress on the spine, because muscle tone changes.
Spinal Column – The Body’s Support

The human vertebral column consists of 24 mutually opposable vertebrae, the sacral bone, and the coccyx. The spine has a double s-shaped form which works like a spiral spring, giving us a flexible gait.

This simultaneous elasticity and stability is owed to the interplay of opposable vertebrae with the intervertebral discs. Ligaments and tendons provide additional support, allowing us to move and stretch.
Back Ache – The Most Common Causes

Lower Back Pain

If a pain is felt in the lumbar region – i.e. the lower back – this is called lumbago, or more commonly, lower back pain. This can be accompanied by restricted mobility. If there is no tangible cause for the pain, it is called non-specific back pain. This is the most common form of the condition, accounting for 85% of cases.* The causes are varied and often combined: overload, contracture, or the dysfunction of ligaments, muscles, intervertebral joints, and intervertebral discs.

Osteoporosis

Osteoporosis is a widespread condition. In Germany, 6.3 million people – especially women over 50 – suffer from this condition.** Bone is living tissue, in a continuous process of degeneration and regeneration. Osteoporosis is a metabolic disease whereby much more bone mass is removed than built up. The bones become brittle, losing structural integrity and strength. They can even break at low load or as a result of light falls. Fractures of the thoracic spine often lead to hyperkyphosis, also called hunchback or roundback. Common consequences include severe pain and restricted mobility, leading to further muscle and bone degeneration.

Prolapse/Slipped Disc

A slipped disc often comes as a surprise to sufferers but is usually the result of long-term developments. At the beginning, the fibre ring of the disc develops small cracks. When this ring ruptures and the pulpous nucleus emerges, a slipped disc occurs.

If the pulpous nucleus then presses against a nerve root, radiating pain in the leg or arm and abnormal sensations such as tingling or numbness result. If it presses against the spinal cord, movement restrictions will follow. The targeted strengthening of the core musculature can have a preventive effect. Here, the “kneaded” intervertebral discs can absorb water, becoming more flexible and better protected. In addition, a strong core musculature protects the spine from mechanical overload.

Facet joint arthritis of the lower spine

Facet joint arthritis of the lower spine is a spinal disorder caused by erosion. It occurs when excessive pressure is exerted on the facet joint of the vertebral column. The cartilaginous gliding layer surrounding the joints is then worn out and can even be completely removed. The disease is degenerative and incurable, but its symptoms can be treated. Causes include scoliotic posture, obesity and inappropriate or excess stress.

SIJ syndrome

SIJ syndrome (sacroiliac joint syndrome) is a disorder of the link between the spine and the pelvis. The right and left sacroiliac joints connect the lumbar spine and the pelvis (joint between the sacrum and ilium bones). The sacroiliac joints have limited mobility, are secured by strong ligaments and cannot be actively moved. Signs of wear, incorrect weight distribution caused by hyperlordosis or different leg lengths, accidents, as well as changes to the connective tissue during pregnancy can cause SIJ syndrome and lead to pain.

Small Tips – Big Effect!

Even small behavioural changes can have a big impact.
Your back will thank you!

1. Reduce weight
Relieve your spine by avoiding or shedding unnecessary pounds.

2. Raise awareness
When lifting, pay attention to keeping your back straight.
Instead of bending over, crouch down. Carry loads close
to the body.

3. Carrying loads properly
Avoid carrying the weight with one side of your body.
Try to achieve even, double-sided load distribution.
Even better, carry your purchases in a backpack.

4. Maintain good posture
Stand, walk and sit upright, with raised head and straight
shoulders.

5. Sit dynamically
In everyday life, we often sit too often and for too long.
So vary your sitting position more often.

6. A rolling stone gathers no moss
Movement strengthens your back muscles. Take stairs instead
of elevators or escalators. Go short distances by bicycle or walk
on foot.

7. On your knees
Do work near the ground (weeding, cleaning stairs, etc.)
kneeling or crouching instead of bending.

8. Always stay relaxed
Stress can lead to back pain. So enjoy a relaxing bath every now
and then, or take a break for a walk.

9. Upright in all living situations
Are bathroom mirrors and washbasins the right height for you?
Is the handle of your vacuum cleaner long enough? If you have
to bend over to use these everyday items, it also puts a strain
on your spine. Adapt everyday items to your height.

10. Are you still sedentary or exercising already?
Balance out your day-to-day activities by making exercise
a fixed part of your leisure time. Sports with calm, rhythmic
movements like gymnastics, walking, cycling, swimming, and
cross-country skiing are good for you – as is targeted muscle
training. Sports with abrupt movements such as squash,
tennis or handball should be avoided.
20 minutes regular back exercises

And your back stays strong and healthy!

Stress, long hours spent working at the computer and everything else that involves sitting, standing, lifting and carrying is a strain on the back in your everyday life. You should do exercises regularly for your well-being, above all after recovering from back pain.

The exercises recommended in the following will help you.

Tips and physiotherapy exercises

Ask your doctor for advice. He will be pleased to compile your own personal back exercise programme at the back of this brochure.

Patient-information about back pain
medi.biz/Lumbamed

Scan QR-Code or type in URL medi.biz/Lumbamed
8 Strengthening exercises

Training recommendations:

The exercises are designed in such a way that a complete training unit consisting of strengthening and stretching is accomplished in about 20 minutes. It would be best to do this programme two or three times a week.

If you do not have any special instructions, you can adhere to these rules:

2 sets of 10-15 repetitions each. You can vary the resistance over the length of the rubber band. Select the resistance so that you can do 10-15 repetitions easily (adapted strain). After the first weeks of adjustment, the resistance can be increased significantly.

Important: Your breathing!
First, inhale and then exhale continuously while straining (no pressure breathing!)

Advantages
- Prevention of back and posture problems
- Avoid muscular imbalance
- Increases the firmness and strength of the ligaments and muscles
- Improves body perception
- Acceleration of rehabilitation
- Prevention of osteoporosis
- Support for body fat reduction
1. Head nodding

Exercise to strengthen the neck muscles

Starting position
• Sit on a chair with your knees bent at about 90°
• Lean forward with your upper body, keeping your back straight
• Support your elbows on your thighs with your elbows bent at about 90°
• Stretch the exerciser around the back of your head in front of your ears with modified tension
• Hold the ends of the exerciser tightly with your left and right hands

Exercise
• Lift your head upwards with small movements against the tension of the exerciser

Please note:
1. keep your back straight
2. head and neck straight
3. small movements

2. Shoulder pulls

Exercise to strengthen the upper back and posterior shoulder muscles

Starting position
• Sit on a chair with your knees bent at about 90°
• Thread the exerciser around the handle of a closed door (or alternatively around another object at door handle height that doesn’t give way) and grasp both ends of the exerciser firmly, holding one end in each hand
• For a firm hold, it is best if you loop the ends of the exerciser around your wrists
• Stretch the exerciser with modified tension
• Keep your arms and the exerciser in a horizontal line

Exercise
• Pull your elbow horizontally backwards against the tension of the exerciser, thereby moving the strap and your arms in a straight line

Please note:
1. keep your back straight
2. tense your abdominal muscles!
3. move the strap and your arms in a straight line
4. pull your shoulder blades together (don’t just bend your arms!)
3. Hip pulls

Exercise to strengthen the back muscles / the large back muscle

Starting position
- Sit on a chair with your knees bent at about 90°
- Thread the exerciser around the handle of a closed door (or alternatively around another object at door handle height that doesn't give way) and grasp both ends of the exerciser firmly, holding one end in each hand
- For a firm hold, it is best if you loop the ends of the exerciser around your wrists
- Stretch the exerciser with modified tension
- Keep your arms straight and pointing slightly downwards

Exercise
- Pull your elbows horizontally backwards close to your body against the tension of the exerciser
- Pull your hands towards your hips

Please note:
1. keep your back straight
2. tense your abdominal muscles!
3. hold your elbows in tightly
4. pull your hands towards your hips

4. Trunk bends

Exercise to strengthen the lower back muscles

Starting position
- Stand on a firm surface with your feet slightly apart and knees slightly bent
- Grasp both ends of the exerciser firmly, holding one end in each hand
- Now stand with both feet on the exerciser
- Lean your upper body forwards with your back straight
- Stretch the exerciser with modified tension
- Keep your arms straight

Exercise
- Pull the exerciser vertically upwards
- Keep your back straight and only straighten up your upper body
- Keep your legs in the starting position, do not move them

Please note:
1. keep your back straight
2. tense your abdominal muscles!
3. knees slightly bent
4. arms held out straight
5. Leg raises

Exercise to strengthen the buttock muscles

Starting position
- Kneel down on a firm surface
- Keep your knees together
- Lean your upper body forwards, keeping your back straight, and support yourself on your elbows
- Grasp both ends of the exerciser firmly, holding one end in each hand
- Stretch the exerciser around one foot with modified tension

Exercise
- Stretch your leg diagonally backwards against the tension of the exerciser until your leg, back and neck are in a straight line
- Then bring your leg back to the starting position

Please note:
1. keep your back straight
2. tense your abdominal muscles!
3. neck, back and leg in a straight line

Then do the same exercise with the other leg.

6. Side pulls

Exercise to strengthen the lateral trunk muscles

Starting position
- Stand on a firm surface with your feet apart and knees slightly bent
- Hold both ends of the exerciser firmly in your right hand
- Bend your upper body to the side with your back straight
- Now stand with your right foot in the large exerciser loop
- Stretch the exerciser with modified tension
- Keep your arms straight

Exercise
- Pull the exerciser vertically upwards
- Keeping your back straight, straighten your upper body and lean over to the other side

Please note:
1. tense your abdominal muscles!
2. do not bend your upper body forwards or backwards
3. keep your knees slightly bent

Then do the same exercise on the other side.
7. Sit-ups

Exercise to strengthen the upper abdominal muscle

Starting position
• Lie on your back on a firm surface
• Bend your knees to about 90° with your legs slightly apart
• Press your lower back down against the floor
• Keep your elbows by your side and your hands on your chest, not your neck
• Rest your head on the floor

Exercise
• Lift your head, shoulders and chest upwards
• Keep your lower back pressed against the floor

Please note:
1. press your lower back against the floor

8. Leg lifts

Exercise to strengthen the lower abdominal muscles and the hip flexors

Starting position
• Lie on your back on a firm surface
• Bend your knees to about 90° with your legs slightly apart
• Press your lower back down against the floor
• Lay your arms on the floor by your body
• Rest your head on the floor

Exercise
• Lift your legs up until the angle between your upper body and thighs is about 90°
• The angle at the knee remains unchanged
• Keep your lower back pressed against the floor

Please note:
1. press your lower back against the floor
2. perhaps lay a pillow under your head
8 Stretching exercises

Training recommendations:

The exercises are designed in such a way that a complete training unit consisting of strengthening and stretching is accomplished in about 20 minutes. It would be best to do this programme two or three times a week.

If you do not have any special instructions, you can adhere to these rules:
Perform each stretching exercise once. You should not feel pain in the stretching position. It should be a pleasant stretching feeling. Hold the stretching position for 10 to 15 seconds, then slowly relax.

Important: Your breathing! During the stretching exercise, breathe calmly and evenly.

Advantages
- reduction of muscle tension
- improvement of mobility and body perception
- prevention of poor posture
- acceleration of regeneration
- improvement in athletic capability
- increasing wellbeing
1. Head presses

Exercise to stretch the neck muscles

Starting position
• Stand on a firm surface with your feet slightly apart and knees slightly bent
• Clasp your hands together behind your head with your elbows pointing forwards

Exercise
• Press your head forwards with your hands
• Keep your back straight
• Keep your legs in the starting position, do not move them
• You will feel the stretch in the neck muscles

Please note:
1. back straight
2. knees slightly bent

2. Head pulls

Exercise to stretch the lateral neck muscles

Starting position
• Stand on a firm surface with your feet slightly apart and knees slightly bent
• Pass your left or right hand over the top of your head and hold your head above the ear
• Keep your arm on the same plane as the body

Exercise
• Pull your head over to the same side as the arm
• Keep your back straight
• Keep your legs in the starting position, do not move them
• You will feel the stretch in the neck muscles
• You can increase the stretch by pushing the other arm towards the floor

Please note:
1. keep your upper body upright
2. with your head looking forwards
3. knees slightly bent
4. pull your head to the side with your hand
5. push your other arm towards the floor

Then do the same exercise with the other arm.
3. Shoulder pulls

Exercise to stretch the upper back and shoulder muscles

Starting position
- Sit on a chair with your knees bent at about 90°
- Keep your back and head straight
- With your left hand hold the handle of a closed door (or alternatively another object at door handle height that doesn’t give way)
- Grasp the wrist of the outstretched arm with your right hand

Exercise
- Pull your upper back / shoulder blade backwards
- Keep your neck relaxed
- You will feel the stretch in your back and shoulders
- You can increase the stretch by pushing your right hand further forwards

Please note:
1. keep your back straight
2. arm stretched
3. pull your upper back / shoulder blade back

Then do the same exercise with the other arm.

4. Trunk pulls

Exercise to stretch the lateral trunk muscles

Starting position
- Stand on a firm surface with your feet slightly apart and knees bent
- Keep your back and head straight
- With your left hand, hold a door handle of a closed door (or alternatively another object, see left)
- Place your right hand or right forearm on your right thigh

Exercise
- Lean forward with your upper body
- Keep your arm, neck and back in an almost straight line
- Turn your pelvis slightly to the right and push your upper body slightly to the left (like leaning into a curve)
- You will feel the stretch running from your shoulder down your whole side to the pelvis

Please note:
1. straight back
2. legs bent!
3. arms, neck and back in an almost straight line
4. pelvis turned slightly to the right and upper body pushed slightly to the left (like leaning into a curve)

Then do the same exercise with the other arm.
5. Forward bending

**Exercise to stretch the lower back muscles**

**Starting position**
- Sit down on a firm surface
- Bend your legs slightly keeping your knees a little apart
- Keep your back, neck and head straight
- Place your hands on your knees

**Exercise**
- Now lean forwards while keeping your back straight
- Do **not** bend your neck or upper back
- Move your stretched arms towards the tips of your toes
- You will feel the stretch in your lower back

**Please note:**
1. keep your back straight when leaning forward (do not bend your neck or upper back)
2. legs bent

6. Lower body twisting

**Exercise to stretch the lower and lateral back and buttock muscles**

**Starting position**
- Lie on your back on a firm surface
- Straighten your right leg, bend your left leg, lay your left foot on your right knee
- Lay your outstretched left arm on the floor, place your right hand on your left thigh

**Exercise**
- Now move the bent leg over the straight one
- As you do so, twist your body from the chest down to the right
- Your left arm remains on the floor, your chest does not twist, your head looks in the opposite direction
- You will feel the stretch in the lower/lateral back muscles and in your bottom

**Please note:**
1. arm stays on the floor
2. head turns to the opposite side

Then do the same exercise with the other leg.
7. Leg pulls

Exercise to stretch the buttock muscles

Starting position
- Lie on your back on a firm surface, lay your arms down next to your body
- Press your lower back down against the floor
- Bend your right knee to an angle of about 90°
- Bend your left knee and lay your ankle on the right leg below the knee

Exercise
- Now hold your right leg below the kneecap
- Pass your left hand between both legs and grasp it with your right hand around the right leg
- Now pull your right calf towards your face
- You will feel the stretch in your buttock muscles

8. Hip tilt

Exercise to stretch the groin region and the hip flexors

Starting position
- Stand on a firm surface with your legs slightly apart
- Hold your arms straight out in front of you

Exercise
- Keep your upper body and legs straight and tilt or push your pelvis forwards
- You will feel the stretch in your groin
- You can increase the stretch in your groin region by keeping your legs straight and turning your pelvis (not your upper body!) slightly further to the left or the right

Please note:
1. press your lower back against the floor

Then do the same exercise with the other leg.

Please note:
1. pelvis tilts / is pushed forwards
Personal exercise programme

Please ask your doctor to fill this out.
My favourites for strengthening

1. Head nodding  □  p. 6
Repeats ________ sets ________

2. Shoulder pulls  □  p. 7
Repeats ________ sets ________

3. Hip pulls  □  p. 8
Repeats ________ sets ________

4. Trunk bends  □  p. 9
Repeats ________ sets ________

5. Leg raises  □  p. 10
Repeats ________ sets ________

6. Side pulls  □  p. 11
Repeats ________ sets ________

7. Sit-ups  □  p. 12
Repeats ________ sets ________

8. Leg lifts  □  p. 13
Repeats ________ sets ________

My favourites for stretching

1. Head presses  □  p. 14
Hold for (seconds) ____________

2. Head pulls  □  p. 15
Hold for (seconds) ____________

3. Shoulder pulls  □  p. 16
Hold for (seconds) ____________

4. Trunk pulls  □  p. 17
Hold for (seconds) ____________

5. Forward bending  □  p. 18
Hold for (seconds) ____________

6. Lower body twisting  □  p. 19
Hold for (seconds) ____________

7. Leg pulls  □  p. 20
Hold for (seconds) ____________

8. Hip tilt  □  p. 21
Hold for (seconds) ____________
Variety from medi

medi develops innovative products that bestow the gift of quality of life under the motto “I feel better”.

The product assortment ranges from medical compression garments to supports and braces, to thrombosis prophylaxis stockings and orthopaedic insoles. Furthermore, with the sports brand CEP, medi offers functional products for different sports - for better performance and endurance as well as faster regeneration.