INFORMATION FOR
PATIENTS TO TAKE AWAY

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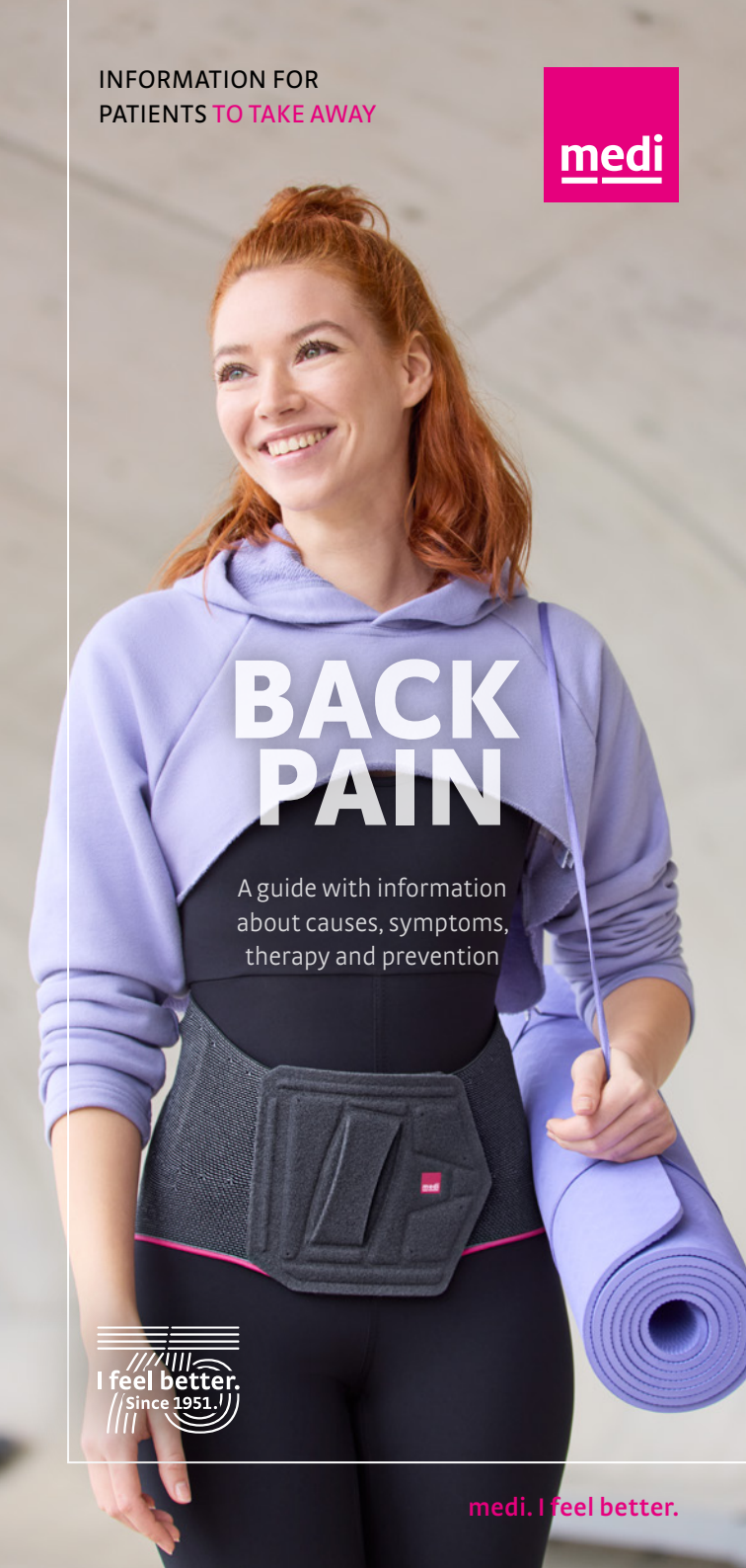

BACK PAIN

A guide with information about causes, symptoms, therapy and prevention

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Back pain

A WIDESPREAD DISORDER

Back pain is and will stay one of the most common health problems globally.[1]

The spine is a complex system comprising vertebrae, intervertebral discs, muscles and ligaments. If the interaction between these structures is disrupted, pain results. This pain can occur in the cervical, thoracic and lumbar spine – with pain in the lumbar spine being the most common.

A distinction is made between specific and non-specific back pain, with non-specific back pain being the most common.

In such cases, no clear physical cause can be identified.

Specific back pain is caused by a clearly identifiable disease, such as a slipped disc, sacroiliac joint syndrome ('SIJ syndrome' for short), facet joint osteoarthritis or osteoporosis. Whilst acute back pain usually lasts for up to six weeks, after twelve weeks it is referred to chronic back pain.

[1] Ferreira M, de Luca K, Haile L et al. (2023). Global, regional, and national burden of low back pain, 1990–2020, its attributable risk factors, and projections to 2050: a systematic analysis of the Global Burden of Disease Study 2021. Online published online at: https://www.thelancet.com/action/showPdf?pii=S2665-9913%2823%2900098-X (Last accessed 02nd April 2026).

Anatomy of the Spine

THE SPINE AS THE BODY'S CENTRAL SUPPORT AND MOVEMENT SYSTEM

The human spine consists of 24 vertebrae and is divided into three sections: the cervical spine with seven, the thoracic spine with twelve, and the lumbar spine with five vertebrae.

SPINE AND SPINAL CORD

The vertebrae consist of a vertebral body at the front and a vertebral arch at the back. The openings in the vertebrae – the vertebral foramina – together form the spinal canal, through which the spinal cord and its nerves pass. The intervertebral discs are located between the vertebral bodies with an elastic nucleus and firm fibrous ring. They absorb and transmit the forces acting upon them.

FACET JOINTS BETWEEN THE VERTEBRAE

On each vertebral arch of the lumbar vertebrae there is an upper and a lower articular process. The inferior articular process of a vertebra, together with the superior articular process of the vertebra below it, forms a vertebral joint – the facet joint. The main function of the facet joints is to guide the spine – they determine how far and in which direction the spine can move.

THE SACROILIAC JOINT (SIJ): THE CONNECTION BETWEEN THE SPINE AND THE PELVIS

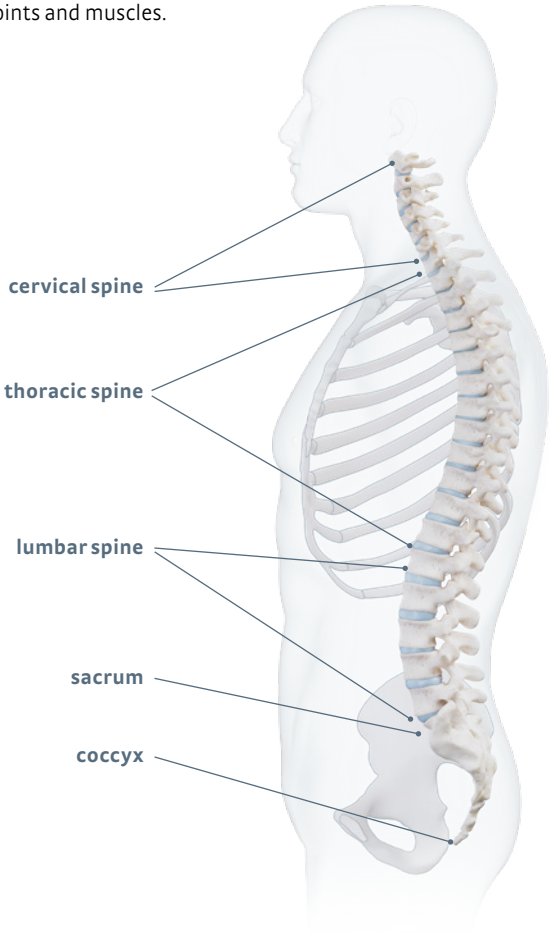
The sacroiliac joint, or SI joint for short, consists of a left and a right joint and connects the spine to the pelvis. It is located between the sacrum and the two iliac crests. Although the SI joint is only minimally movable it plays a central role in the transfer of force between the upper body and the legs. The sacroiliac joints are stabilised by a tight ligamentous apparatus. If a functional disorder occurs, this is referred to as sacroiliac joint syndrome, which is often confused with disc problems.

THE PELVIS AND THE SYMPHYSIS

The pelvis consists of the sacrum, the coccyx and the two hip bones, and forms the bony connection between the spine and the lower limbs.

At the front of the pelvis, the symphysis connects the two pubic bones. This cartilaginous joint is minimally movable, but must withstand considerable tensile forces. Overuse or misalignment can cause pain in the symphysis.

The spine and pelvis form a functional unit – the lumbar spine, sacroiliac joint and pelvis work closely together. When it comes to back pain, it is therefore important not only to consider individual structures, but to take a holistic view of the interaction between the spine, pelvis, joints and muscles.



Non-specific back pain

WHAT IS NON-SPECIFIC BACK PAIN?

Most cases of back pain are classified as non-specific back pain. There are no clear physical findings – and in most cases, no obvious causes can be identified. Non-specific back pain can develop gradually or occur suddenly. Lumbalgia – commonly known as 'lumbago' – describes sudden back pain on the lumbar spine.

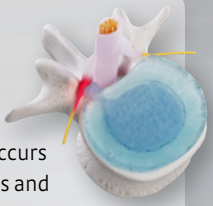
CAUSES AND RISK FACTORS

Older people are affected more frequently than younger people. This is due to degenerative changes, an age-related loss of muscle mass and increasing inactivity, which leads to a decline in the fitness of the core muscles.

Other risk factors include:

- Weak or unbalanced core muscles
- Mental stress can cause tension throughout the body
- Work-related factors such as a repetitive, static posture or constantly carrying and lifting heavy loads
- An awkward movement or posture can lead to a blockage in the lumbar spine. The muscles to tense up and the patient can adopt a protective posture
- Foot deformities can lead to a leg length differences, which may cause pelvic misalignment

Slipped disc



WHAT IS A SLIPPED DISC?

A slipped disc – also known as a prolapse – occurs when the outer fibrous ring of a disc ruptures and parts of the soft gel-like nucleus leak out. The escaped material can put pressure on nerve roots and the spinal cord, what can lead to significant pain or functional impairment. In the case of a disc bulge (disc protrusion), the nucleus simply bulges outwards without the fibrous ring is being damaged.

CAUSES AND RISK FACTORS

The most common cause is the natural ageing process: the intervertebral discs lose water and elasticity. The nucleus becomes less elastic and the annulus fibrosus more brittle – making it easier for tears to form. The reduced height of the intervertebral discs also contributes to changes in the vertebral bodies. Spinal curvature (scoliosis) or the slipping of a vertebral body relative to the vertebra below it (spondylolisthesis) can also lead to a slipped disc.

Risk factors include:

- Lack of exercise and prolonged sitting
- Poor posture and incorrect lifting techniques
- Being overweight
- Genetic predisposition
- Smoking (reduces the supply of nutrients to the intervertebral discs)

WHAT DOES A SLIPPED DISC FEEL LIKE?

An intervetebral disc protrusion or a minor disc prolapse rarely causes any symptoms, or only mild ones. Without the typical signs, many slipped discs remain unnoticed at first. Symptoms only occur when nerves are affected.

The following symptoms may occur in the case of a slipped disc:

- Localised back pain or pain on the spine, often sharp or dull, also known as 'lumbago'
- Sensory disturbances such as tingling or numbness
- Motor disorders such as muscle weakness or paralysis
- Restricted movement and muscle tension

Typically, symptoms increase with physical exertion or when coughing.

Facet joint osteoarthritis

WHAT IS FACET JOINT OSTEOARTHRITIS?

The facet joints connect the adjacent vertebrae of the spine. If these joints become damaged due to wear and tear, this is referred to as facet joint osteoarthritis, also known as spondylarthrosis. From around the age of 55, the facet joints are among the most common causes of back pain – even more frequent than the sacroiliac joint (SIJ). With increasing age, the cartilage in the vertebral joints and intervertebral discs wears down. Consequently, the space between the vertebrae is reduced, increasing the load on the facet joints. This can cause painful inflammation and restricted movement.

CAUSES AND RISK FACTORS

In addition to the natural wear and tear of the joint surfaces and cartilage as the main cause, the following risk factors further contribute to the disease:

- Physical inactivity or repetitive strain
- Spinal trauma and injuries
- Excess weight (additional pressure)
- Spinal misalignments (such as scoliosis, hyper-lordosis)
- Work-related strains, such as sitting for long periods or heavy lifting

WHAT DOES FACET JOINT OSTEOARTHRITIS FEEL LIKE?

A typical symptom is a dull, localised pain in the lower back.

The pain

- usually occurs when standing up from a sitting position or after standing for a long time,
- may radiate to the buttocks or thighs,
- often improves when moving or resting,
- increases when the spine is hyperextended.

Sacroiliac joint syndrome

LOWER BACK PAIN:
WHAT IS SACROILIAC JOINT SYNDROME?
The sacroiliac joint (SIJ) consists of two joints that transfer the weight of the upper body to the legs, absorb shock and support movement. In the case of a functional disorder – the so-called 'SIJ syndrome' – the pain typically occurs on one side in the lower back.

CAUSES AND RISK FACTORS

Besides joint blockages, functional impairments – including incorrect loading, abrupt movements, or poor posture – can lead to SIJ symptoms.

Other risk factors include:

- Spinal misalignments such as scoliosis or a leg length discrepancy (uneven weight distribution)
- Hormonal changes during pregnancy affect the ligaments in the pelvis. The ligaments soften in preparation for childbirth. As a result, the SI joint can become unstable and cause pain.

WHAT DOES SACROILIAC JOINT SYNDROME FEEL LIKE?

Patients report sudden or gradually developing pain, usually on one side over the affected joint. In most cases, the pain is movement-dependent.

Other symptoms:

- Restrictions on movement, such as difficulty standing up, bending over, stretching or turning the upper body
- The pain worsens when sitting or standing for long periods, climbing stairs, doing sports, or when turning the leg outwards
- A feeling of blockage or instability in the pelvic area

Other indications that cause pain in the back and pelvis

SYMPHYSIS PAIN

The symphysis is the cartilaginous joint between the two pubic bones. If it is subjected to excessive strain or injury – for example, during pregnancy or as a result of trauma – this can cause severe pain. A complete tear is referred to as a symphysis rupture.

You can find further information on pregnancy in our Pregnancy Guide and online at: www.medi.biz/pregnancy

OSTEOPOROSIS

As we get older, more bone mass is getting lost than is built up, particularly in women over the age of 50. If the natural ageing process leads to an imbalance between bone loss and bone formation, significantly more bone is broken down. In this case, medicine refers to the condition as the metabolic disorder osteoporosis.

The consequences become apparent, among other things, in the spine. Vertebrae that were originally healthy become brittle under the weight of the body and lose their shape.

Further information on osteoporosis can be found in our Osteoporosis Guide and online at: www.medi.biz/osteoporose

Preventing back pain

To prevent back pain and avoid potential poor posture and functional damage to the spine or pelvis, it is important to stay active.

PHYSICAL ACTIVITY

Regular exercise and an active lifestyle promote good posture, strengthen the body's muscles and can also help relieve stress – another factor that can cause back pain.

TRAINING

This also includes regular training of the core and pelvic muscles to help balance the physical strain, especially in situations involving unilateral loading or sedentary or standing activities. In these situations, it is also important to use ergonomic equipment (e.g., chair for sitting) to ensure good posture and to support it.

POSTURE

Whether at work or in everyday life, it is important to maintain good posture when carrying out physically demanding tasks: lifting correctly (using your knees to keep your back straight) and carrying items properly protects your back and helps prevent pain.

DIET

A healthy diet and regular hydration support the body's metabolism – particularly that of the intervertebral discs – and keep the body fit. It is especially important to take the strain off your back if you are overweight.

Treatment options for back pain

FOR ALL TYPES OF BACK PAIN, THE PRIMARY AIM IS TO KEEP MOVING.

After a brief period of rest during the acute phase, it is important to engage the entire musculoskeletal system – for example, through walks or mobilisation exercises – in order to strengthen the muscles and stabilise the back. Conservative treatments are successful in most cases of back pain.

These include:

- Symptomatic medication to relieve pain and reduce inflammation
- Back training with targeted mobilisation, stabilisation and strengthening exercises for the core and pelvic muscles
- Heat treatments to relax the muscles
- Physiotherapy or manual therapy
- Lumbar braces for stabilising the spine and pelvis

If conservative treatment does not produce the desired results, or if the intervetebral disc causes neurological symptoms, surgery may be necessary following a medical assessment. This is usually performed using minimally invasive techniques.

Discover our therapy-accompanying exercises that you can easily perform at home to help relieve back pain. Simply scan the QR code and get started right away.
Please seek medical or therapeutic advice before starting the exercises.

Back braces

A USEFUL COMPLEMENTARY TREATMENT FOR BACK PAIN

For those suffering from back pain, back braces can help relieve pressure on the back, provide support and promote mobility in everyday life. 13 percent of patients who wear a brace or support do so because of lower back pain, slipped discs or osteoporosis.[1]

FUNCTIONAL ELEMENTS

Stabilisation elements, massage pads or strap systems can support the back thanks to their individual mechanisms of action – ensuring effective treatment.

COMPRESSIVE KNITTED FABRIC

Braces made from compressive knitted fabric help to stabilise the back and improve proprioception.

EASY TO USE AND COMFORTABLE TO WEAR

High leg cut-outs, fold-down closure edges and hand loops make it easy to don the brace and to support a comfortable wearing.

HOW DO I GET A BACK BRACE?

1. **Visit your doctor:** Your GP, orthopaedic surgeon or treating HCP will be able to advise you.
2. **Prescription:** If medically necessary, you may be prescribed a back brace.
3. **Obtaining and fitting medical aids**: Take your prescription to a medical retail shop. The staff there will offer you personalised advice and explain how to use the appropriate product correctly.

[1] An effective and well-established treatment for a better quality of life in everyday life. Representative survey conducted by the Allensbach Institute for Public Opinion Research on behalf of eurocom e. V., survey results 2023. Published online at: https://www.eurocom-info.de/wp-content/uploads/2023/08/Allensbach-Patientenumfrage-2023_web.pdf (Last accessed 03/02/2026).

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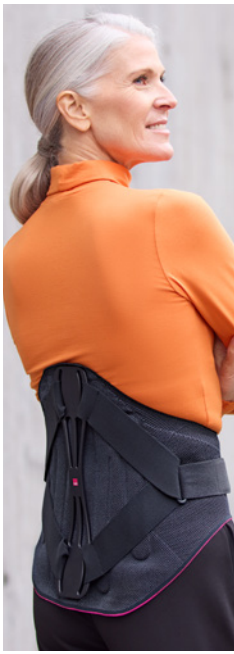

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This information leaflet is a promotional material produced by medi for patients and end-users.

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