CONDITION

Lordosis - lumbar

Lumbar lordosis is an inward lower-spine curve that can become unusually deep and cause a swayback shape or pain.

WHAT IT IS
An unusually pronounced inward curve of the lower spine

BODY SYSTEM
Bones, joints, and muscles

MAIN SYMPTOMS
Often none, swayback shape, low back pain, stiffness

WHAT CAUSES IT
Body shape, posture, or another spine or muscle condition

HOW IT IS DIAGNOSED
Physical examination and standing spine X-rays when needed

MAIN TREATMENT
Exercise-based therapy and treatment of the underlying cause

CAN IT BE CURED?
Sometimes - flexible curves often improve with treatment

IS IT AN EMERGENCY?
Sometimes - new bladder, bowel, or saddle numbness

LONG-TERM OUTLOOK
Often stable; outlook follows symptoms and underlying cause

Overview

Lordosis is the normal inward curve of the spine. Lumbar lordosis refers to this curve in the lower back. It helps balance the body and absorb forces during standing, walking, and other movement.

People sometimes use "lordosis" to mean an unusually deep inward curve, also called excessive lumbar lordosis or hyperlordosis. This can create a swayback appearance, with the abdomen and buttocks looking more prominent. Appearance alone does not show whether the curve is harmful.

There is no single ideal curve for everyone. Lumbar shape is influenced by the pelvis, age, body build, hip movement, and the curves elsewhere in the spine. A pronounced curve may be normal for you and cause no symptoms. In other people, it is linked to pain, restricted

movement, or another condition that needs attention.

Lumbar lordosis is a condition of spinal alignment, not a disease by itself. When assessment is needed, the main goal is to find out whether the curve is flexible or fixed, whether it is causing symptoms, and whether an underlying problem is present.

Symptoms

Many people with pronounced lumbar lordosis have no symptoms. They may notice the shape in a mirror or have it pointed out during an examination for another reason.

Possible features include:

Pain is not always caused by the curve itself. Muscle strain, joint irritation, a slipped vertebra, or another back condition may be responsible.

Numbness, tingling, weakness, or pain travelling down a leg can occur if a related spine problem affects a nerve. These are not typical features of a harmless postural curve and should be assessed, particularly if they are new or worsening.

In children, a parent or caregiver may notice a swayback shape or that the child's posture differs from that of other children. Most children with lordosis do not have serious symptoms, but a curve that is becoming more obvious during growth should be checked.

- A deeper-looking hollow in the lower back
- A swayback stance, with the pelvis tilted and abdomen more prominent
- Low back aching, especially after prolonged standing
- Tightness or reduced movement in the back or hips
- Muscle fatigue during activity

Causes and risk factors

Some lumbar lordosis is normal and necessary. A more pronounced curve may reflect your natural body shape rather than a medical problem.

A flexible curve can be influenced by posture and muscle balance. Tight muscles at the front of the hips, reduced abdominal or buttock muscle control, and the way the pelvis is held may all contribute. These factors often overlap and cannot be identified reliably from appearance alone.

Pregnancy can temporarily deepen the lower-back curve as body weight and balance change.

Higher body weight, especially around the abdomen, may also change posture and increase strain, although it does not explain every case.

Sometimes lordosis develops as the body compensates for another condition, such as:

In children, unusual lordosis may be associated with a spinal, hip, muscle, or inherited skeletal condition. In adults, age-related changes in spinal discs and joints can alter overall alignment. Some people increase their lumbar curve to keep their head and upper body balanced over the pelvis.

- A fixed curve elsewhere in the spine
- Limited movement or fixed bending at a hip
- Spondylolisthesis, where one vertebra slips forward over another
- Certain muscle or nerve conditions
- Differences in bone growth or skeletal development

Diagnosis

A healthcare professional will ask when the curve was first noticed, whether it is changing, and whether you have pain or nerve symptoms. Previous injuries, pregnancy, growth, other medical conditions, and the effect on daily activities may also be discussed.

During an examination, you may be observed while standing and walking. The spine, pelvis, hips, and legs may be checked. Bending or changing position helps show whether the curve is flexible. Strength, sensation, and reflexes may be tested if nerve involvement is possible.

Imaging is not always needed for a painless, flexible curve. If the curve appears fixed, is progressing, causes significant symptoms, or may be related to another condition, standing X-rays can show the alignment of the spine and pelvis. Measurements from an X-ray must be interpreted alongside your age, pelvic shape, symptoms, and overall spinal balance. A larger measurement does not automatically mean more pain.

MRI or CT scans are not routine tests for lordosis alone. They may be used when symptoms suggest pressure on a nerve, a disc problem, narrowing around the nerves, a fracture, or another underlying cause.

Blood tests do not diagnose lumbar lordosis. They may be requested only when symptoms suggest inflammation, infection, or another medical condition.

Treatment and management

A painless curve that is stable and not caused by another problem may need only reassurance or routine monitoring. Treatment aims to improve comfort and function rather than force every spine into the same shape.

Physical therapy may be recommended when pain, stiffness, weakness, or movement problems are present. A programme can include exercises for trunk and hip strength, flexibility, movement control, and comfortable posture. Exercise may improve symptoms and control of a flexible curve, but it may not permanently alter a fixed bony curve.

Changing positions regularly and building activity gradually can help with back discomfort. Complete bed rest is usually unhelpful for ordinary mechanical back pain. A physiotherapist or other qualified professional can adapt activity if a nerve, hip, or spinal condition is involved.

Pain-relieving medicines may be used for short periods when appropriate. The safest choice depends on your health, pregnancy status, other medicines, and the cause of pain. A pharmacist or healthcare professional can advise on suitable options.

If body weight is contributing to symptoms, gradual weight management may reduce strain. Weight loss is not required simply because someone has a pronounced curve.

Children with an unusual curve may be monitored during growth. Bracing is used only in selected cases and depends on the underlying condition, remaining growth, and flexibility of the spine.

Surgery is uncommon for lordosis alone. It may be considered for severe or progressive structural deformity, major loss of function, nerve pressure, or an underlying condition such as significant spondylolisthesis. The operation is chosen for the specific cause, not only for the visible curve.

Complications

Many people have no complications. When problems occur, they are often related to the cause of the lordosis rather than the curve by itself.

Possible complications include ongoing low back pain, muscle fatigue, reduced flexibility, and difficulty standing or walking for long periods. A marked, fixed change in alignment can place extra stress on spinal joints and affect balance.

If an associated condition narrows the spaces around spinal nerves, it may cause leg pain, numbness, or weakness. Severe compression of the bundle of nerves at the bottom of the spine, called cauda equina syndrome, is rare but requires emergency care.

A pronounced curve can also affect body image. If concern about appearance is affecting your mood, social life, or eating and exercise habits, it is reasonable to discuss this during routine care.

Prevention

Natural lumbar lordosis cannot and should not be prevented. Curves caused by inherited skeletal conditions, body shape, growth differences, or necessary compensation for another deformity may not be preventable either.

There is no proven posture routine that prevents every case of excessive lordosis. However, regular physical activity, varied sitting and standing positions, and maintaining comfortable hip and trunk movement may reduce muscle-related back symptoms.

Treating a hip, muscle, nerve, or spinal condition may help stop a related postural change from worsening. Children whose curve is changing during growth may benefit from timely assessment, even when they feel well.

Living with it and what to expect

A flexible postural curve may become less noticeable over months as strength, mobility, and movement habits improve. Symptoms can settle even if the shape of the spine does not change much.

Lordosis that develops during pregnancy often reduces after birth as weight distribution and posture change. Back discomfort may take longer to improve, particularly while the body recovers and daily lifting demands increase.

A structural curve caused by bone shape or another spinal condition is less likely to disappear with exercise. It may remain stable for years, or it may change with growth, ageing, or progression of the underlying condition. Follow-up is based on symptoms, function, and evidence of change rather than appearance alone.

Most people with a pronounced lumbar curve can work, exercise, and take part in usual activities. You may need to build up activity gradually or modify movements that repeatedly trigger pain. An exercise does not need to make your back look perfectly flat to be useful.

Routine review may be appropriate if a child is still growing, the curve is known to be structural, or another spinal condition is present. New symptoms or a noticeable change are reasons for an earlier assessment.

When to get medical help

Arrange a routine appointment if:

Seek prompt medical advice if back pain occurs with fever, unexplained weight loss, a history of cancer, significant immune suppression, or pain that is severe and does not ease with rest. These features do not confirm a serious cause, but they need timely assessment.

Get emergency help for:

These symptoms may indicate serious nerve pressure or spinal injury. They are not expected features of uncomplicated lumbar lordosis.

- Back pain persists, repeatedly returns, or limits sleep or daily activity
- The curve appears to be increasing
- A child develops a noticeable or changing swayback posture
- You have new pain travelling down a leg, tingling, or numbness
- You are concerned about the curve or its effect on movement
- New loss of bladder or bowel control
- Inability to urinate
- Numbness around the genitals, buttocks, or inner thighs
- Rapidly worsening weakness in one or both legs
- Severe back pain after a major fall, collision, or other injury

Common questions

Is lumbar lordosis normal?

Yes. Everyone normally has some inward curve in the lower back. The term can also describe a curve that looks deeper than expected. Whether it matters depends on symptoms, flexibility, overall spinal balance, and the cause.

Can lumbar lordosis be corrected?

A flexible curve related to posture or muscle control may become less pronounced with appropriate exercise and movement changes. A fixed curve caused by bone shape or another condition may not straighten without treating that cause. Symptom improvement is often a more realistic goal than changing appearance.

Does lordosis make your stomach stick out?

It can. Tilting the pelvis forward and increasing the lower-back curve can make the abdomen and buttocks look more prominent. Abdominal shape also reflects body build, muscle tone, pregnancy, and weight distribution, so appearance alone cannot confirm lordosis.

Can a sleeping position fix lumbar lordosis?

No sleeping position has been shown to permanently correct the curve. Use a position and pillow arrangement that feels comfortable and allows you to sleep. Persistent night pain should be assessed rather than managed only by changing sleep position.

Is lordosis the same as scoliosis?

No. Lordosis is an inward curve seen from the side. Scoliosis is a sideways curve with rotation of the vertebrae, usually assessed from behind and on X-rays. A person can have both.

Can lumbar lordosis cause sciatica?

Lordosis alone does not usually cause sciatica. Leg pain may occur when an associated problem, such as spondylolisthesis, a disc problem, or narrowing around a nerve, affects a spinal nerve.

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