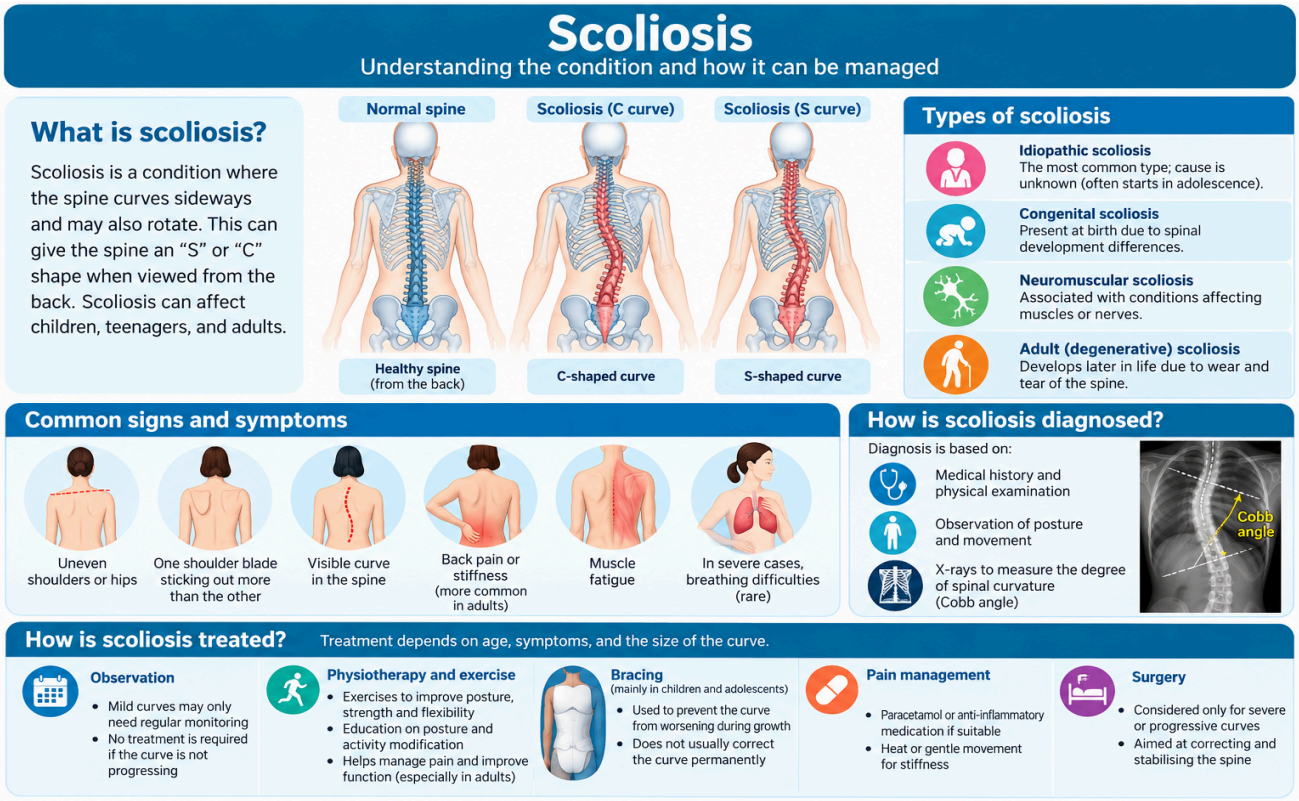
Scoliosis

Understanding spinal curvature and management

Scoliosis: Understanding and Management

A guide to causes, symptoms, treatment and exercises



What is scoliosis?

Scoliosis is a condition where the spine curves sideways and may also rotate. This can give the spine an "S" or "C" shape when viewed from the back. Scoliosis can affect children, teenagers, and adults.

Types of scoliosis

Idiopathic: Most common; cause unknown, often begins in adolescence.
Congenital: Present at birth due to spinal development differences.
Neuromuscular: Associated with muscle or nerve conditions.
Adult (degenerative): Develops later due to wear and tear of the spine.

Signs and diagnosis

Recognising scoliosis and assessing spinal curvature

Common signs and symptoms

Many people have few or no symptoms. When present, symptoms may include:

- Uneven shoulders or hips
- One shoulder blade sticking out more than the other
- Visible curve in the spine
- Back pain or stiffness (more common in adults)
- Muscle fatigue
- In severe cases, breathing difficulties (rare)

How is scoliosis diagnosed?

Diagnosis is based on:

- Medical history and physical examination
- Observation of posture and movement
- X-rays to measure spinal curvature (Cobb angle)

How is scoliosis treated?

Treatment depends on age, symptoms and the size of the curve. Options include observation, physiotherapy and exercise, bracing, pain management and, in some cases, surgery.

Observation

Mild curves may only need regular monitoring. No treatment is required if the curve is not progressing.

Exercises and rehabilitation

Supporting posture, strength and everyday activity

Physiotherapy and exercise

- Exercises to improve posture, strength and flexibility
- Education on posture and activity modification
- Helps manage pain and improve function, especially in adults

Corrective exercise examples

Scoliosis – Exercise Examples

Gentle exercises to help improve posture, strength, flexibility and everyday function

1 One arm reach (side stretch)

Helps improve spinal flexibility and posture.



- Sit or stand tall.
- Reach one arm up and gently lean towards the opposite side.
- Keep your hips level and breathe normally.
- Hold for 5–10 seconds.
- Repeat 5 times on each side.

2 Split stance and arm raise

Encourages postural alignment and trunk mobility.



- Stand in a lunge position with one foot in front.
- Reach the opposite arm up and overhead.
- Keep your trunk long and stable.
- Hold for 5–10 seconds.
- Repeat 5 times on each side.

3 Upward facing stretch

Gently lengthens the spine and improves flexibility.



- Lie on your front with hands under your shoulders.
- Gently lift your chest, keeping your hips on the floor.
- Keep your shoulders relaxed.
- Hold for 5 seconds.
- Repeat 5–10 times.

4 Downward facing stretch

Stretches the back and improves spinal mobility.



- Start on your hands and knees.
- Lift your hips up towards the ceiling, keeping your arms and legs straight and your back long.
- Keep your head relaxed.
- Hold for 5–10 seconds.
- Repeat 5–10 times.

5 Side plank (modified)

Helps strengthen the side trunk muscles.



- Lie on your side, propped on your forearm with knees bent.
- Lift your hips off the floor, keeping your body in a straight line.
- Hold for 5–10 seconds.
- Repeat 5 times on each side.

6 Bird dog

Improves core stability and spinal control.



- Start on hands and knees with a neutral spine.
- Slowly extend one arm forward and the opposite leg back.
- Keep your hips level and core engaged.
- Hold for 5 seconds.
- Repeat 5–10 times on each side.

7 Thoracic rotation (open book)

Improves spinal mobility and rotation.



- Lie on your side with knees bent together.
- Keep your bottom arm out in front.
- Gently rotate your top arm and upper body, opening towards the other side.
- Hold for 5 seconds.
- Repeat 5–10 times on each side.

8 Pelvic tilt (core activation)

Helps strengthen core muscles and support posture.



- Lie on your back with knees bent and feet flat.
- Gently tighten your abdominal muscles and flatten your lower back into the floor.
- Hold for 5 seconds.
- Repeat 10–15 times.

Helpful tips

Stay active
Regular movement and exercise can help maintain strength, flexibility and good posture.

Good posture
Be aware of your posture in daily activities, such as sitting, standing and lifting.

Most activities are safe
Most sports and everyday activities are safe. Speak to your physiotherapist if you are unsure.

Be consistent
Perform exercises regularly and as advised by your physiotherapist for the best results.

Living with scoliosis

Stay active, maintain good posture and enjoy suitable sports and activities.
Scoliosis does not usually prevent an active life.

Treatment and next steps

Practical options and when to seek advice

1. Bracing

Mainly used in children and adolescents to prevent the curve from worsening during growth. It does not usually correct the curve permanently.

2. Pain management

Paracetamol or anti-inflammatory medication may help if suitable. Heat or gentle movement may ease stiffness.

3. Surgery

Considered for severe or progressive curves, with the aim of correcting and stabilising the spine.

When should I seek medical advice?

Contact your GP or healthcare professional if you notice increasing spinal curvature, worsening or persistent back pain, changes in posture or balance, or develop numbness, weakness or breathing difficulties.

Outlook

Many people with scoliosis live normal, active lives. Early detection and appropriate management help prevent progression and reduce symptoms.

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