

Scoliosis

Questions and answers

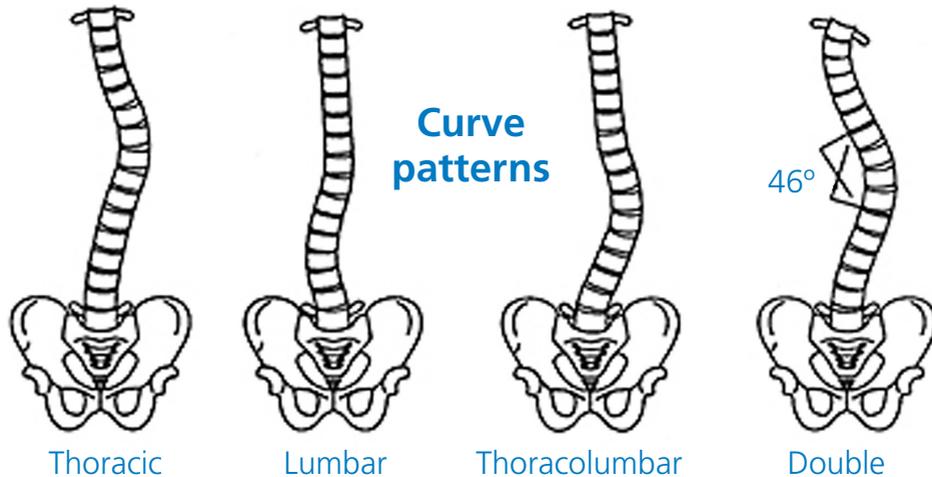
Patient Information

Specialist Care
Spinal Surgery



What is scoliosis?

Scoliosis refers to a curvature of the spine in all three planes – side to side, front to back and rotating. As the spine curves and twists, it turns the ribcage round and this changes the shape of the body. The curvature can occur in any part of the spine, or in more than one part. The most common regions affected are the chest area (thoracic scoliosis) and the lower part of the back (lumbar scoliosis) or a combination of both.



What causes it?

In most cases (around 80%) there is no known cause (idiopathic). Usually this happens in adolescence, and more often to girls, but it can also happen in younger children. There has been some research to suggest that there may be a genetic link, but this has not been determined. Very rarely, abnormal development of the bones can cause it to be present at birth (congenital). Some medical conditions, for example muscular dystrophy, cerebral palsy, Marfan's syndrome etc. affect nerves and muscles, and can lead to scoliosis (neuromuscular).

Could I have prevented it?

No, there is no way known to prevent scoliosis occurring. It is not caused by bad posture, exercise or diet. However, it is good practice to adopt good posture to keep your balance correct, and to do mild to moderate level activities to keep your core spinal muscles strong and toned.

How common is it?

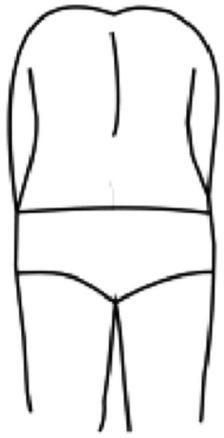
About one in twenty people has scoliosis, usually in a very mild form and so not detected. There are about three or four children per 1000 in the UK diagnosed with scoliosis. It is more common in girls than boys, and most commonly starts in adolescence. A lateral (sideways) curvature of the spine of less than 10° is considered normal and not scoliosis.

How is scoliosis identified?

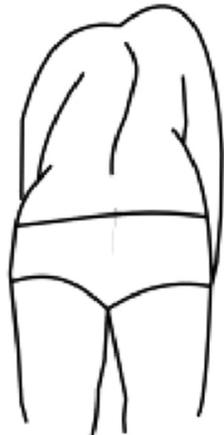
Identifying features of scoliosis include:

- One shoulder is higher than the other
- One shoulder blade sticks out more than the other
- The waist looks uneven
- Leaning to one side
- Hips look uneven
- Hump(s) in the back on bending forwards
- Girls may find that one breast appears more prominent than the other
- If in a wheelchair, it may be becoming uncomfortable and the head may be tilted to one side
- Clothes do not hang properly
- Sitting balance may be affected

Physical appearance



Normal



When bending forward



A child with scoliosis

What tests do you do to confirm this?

A detailed history will be taken from birth to the present time. You will have a physical examination where the surgeon looks for the features mentioned previously, your posture, your reflexes and muscle power. X rays are taken initially and then regularly to monitor curve progression. These determine the type of curve, its position and direction. The angle of curves can be measured and treatment determined accordingly. X rays and physical appearances also help the surgeon determine how close you are to skeletal maturity and therefore to assess how likely the curve is to progress. An MRI (magnetic resource imaging) scan may also be requested to rule out any underlying neurological or bony conditions, or rare causes of scoliosis.

In clinic, why do you ask about my periods?

This is because it is a sign of growth maturity. During the growth spurt, which happens just before and just after the start of your periods, spinal curves are more likely to progress than at any other time. If you started your periods more than two years ago, there is a lot less chance of the curve progressing. This will therefore change treatment decisions sometimes.

What treatment is required?

There are four main treatments.

1. In most cases, no active treatment is required. Clinic reviews are needed regularly until you are fully grown.
2. In some cases a back brace may be recommended. This aims to slow progression of the curve. The brace is fitted by the orthotics team at the hospital on an outpatient basis. It needs to be worn at least 16-18 hours per day, just taken off for baths and showers and certain activities, such as swimming.
3. If the curve is progressing and severe, surgery may be an option. If you are not fully grown, a temporary growth rod can be inserted. This partly straightens the curve and can be lengthened in line with the normal growth of the spine until permanent corrective surgery can be considered.

What happens if I have a severe, progressive curve and I don't do anything?

Once a curve has achieved a certain level it usually progresses. Untreated severe and progressing scoliosis in adulthood can lead to problems. Your surgeon will discuss the options with you in clinic.

Is scoliosis painful?

Although children may come to clinic complaining of back pain, scoliosis does not usually cause pain. Sometimes if the curve is large, there may be some muscular aches, but these often settle quickly. If there is pain, there may be another cause.

Can I play sports and do PE at school?

Yes you can. It is important to remain physically active. There may be some activities that you find difficult and so need to avoid, but these are different with each person.

Are there any activities you recommend?

Swimming is a very good exercise for gently building postural strength and is recommended for people with scoliosis.

Where can I find further information?

The Scoliosis Association (UK) provide information and support www.sauk.org.uk. There is a lot of information on the Internet generally but be very careful as some of this may be incorrect or misleading.

You can contact the scoliosis team at The James Cook University Hospital for answers to any questions not covered above or visit the hospital website page on: www.southtees.nhs.uk/services/orthopaedics/paediatric-spinal

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Patient Advice and Liaison Service (PALS)

This service aims to advise and support patients, families and carers and help sort out problems quickly on your behalf.

This service is available, and based, at The James Cook University Hospital but also covers the Friarage Hospital in Northallerton, our community hospitals and community health services. Please ask a member of staff for further information.

If you require this information in a different format please contact Freephone 0800 0282451

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