

Scoliosis

What is scoliosis?

Scoliosis (also called *idiopathic adolescent scoliosis*) is a lateral (sideways) curve of the spine. It usually develops during the growth spurt at 11 to 13 years.

How common is it and who gets it?

Scoliosis is common with a significant prevalence of 2 to 3% (above 10°); it is present to a minor degree in 10% of the population while 1 in 1000 have it to a severe degree. It is more common in females (a 10 to 1 ratio compared with males). Although some cases develop in abnormal spinal conditions or disorders such as polio, the cause is generally unknown (hence the term 'idiopathic'). It tends to run in families.

What are the symptoms?

The signs of idiopathic scoliosis can sneak up on people so that they are often not noticed. The problem does not appear until after 10 years of age in a previously normal spine. As the curvature develops, subtle changes may be noticed—shirts and trousers may fit poorly and hemlines of skirts are difficult to level. Back pain is uncommon in scoliosis but can occur in more severe cases.

What are the problems?

With major degrees of scoliosis you notice:

- obvious curving of the upper body
- shoulders become uneven and rounded
- one shoulder is higher than the other
- the shoulder blade on one side stands out.

In extreme cases the lungs and heart can be compressed, leading to breathing difficulties. The worst feature for the patient is social embarrassment.

What are the diagnostic tests?

The screening test is the 'forward bend test' when the curvature and asymmetry (uneven sides) are obvious to the observer standing behind. This test is usually done with 12 to 14 year olds. An X-ray of the spine shows the S curvature and the Cobb angle is measured. This is the angle between the two main lines of direction of the curved spine.

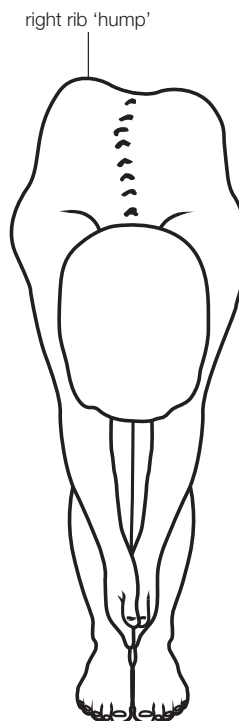
What is the management?

Most cases are minor (Cobb angle less than 10°), and simply practising good posture and having physiotherapy is all that is required. A brace can be used for those with a greater curvature; it will help to straighten the spine during the growing period of adolescence.

The general rules are:

- less than 20°—observe
- 20° to 40°—brace
- over 40° to 45°—operate

Patients with significant scoliosis will be referred to an orthopaedic surgeon for an opinion.



Positive forward bend test showing difference between right and left sides

