Adolescent Idiopathic Scoliosis

'Scoliosis' is the term used to describe a curve of the spine. Adolescent idiopathic scoliosis is a form of scoliosis that is usually detected around 10–11 years of age. 'Idiopathic' means that the cause of the scoliosis is unknown, however it can run in families. Adolescent idiopathic scoliosis affects approximately 4% of the population, and is more common in girls.

The child commonly presents to the doctor after it is noticed that the child's posture is 'uneven' and becoming progressively worse. There may be evidence of asymmetry of the shoulder and shoulder blades, asymmetrical waist creases, rib and shoulder blade prominence and a visible curvature of the spine ***(Figure 1)***.

A forward bend test is commonly used to detect a scoliosis. If a scoliosis is present, an asymmetry of the spine and chest may be seen when observing the child from behind ***(Figure 2)***.

If a scoliosis is suspected, it is important to have a single X-ray (P-A, full length view) taken of the spine with the child standing. The severity of a scoliosis is measured in degrees on the X-ray. If a scoliosis is present, repeat spinal X-rays will be taken at regular intervals to check if the curve is progressing.

The likelihood of a curve progressing is related to age, growth and skeletal maturity. During periods of rapid growth, a scoliosis may progress significantly. An X-ray of the hand and wrist is used to determine skeletal age or maturity. Girls usually continue to grow for 2 years after the onset of their first period, however boys can continue to grow until they are 16–18 years old.

The management of adolescent idiopathic scoliosis depends on the severity of the scoliosis and the child's age and growth potential. Mild curves require regular monitoring, while larger curves may require bracing to try and prevent the curve from progressing ***(Figure 3)***. A more severe curve may require surgery. Treatments such as stretching, electrical stimulation or manipulation have not been shown to change the natural history of scoliosis and will not correct a scoliosis. It is, however, important that the child participates in regular exercise to ensure they remain fit, flexible and healthy.

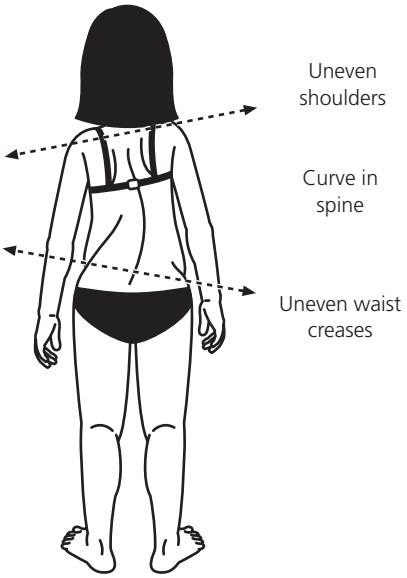

Figure 1. Signs of scoliosis.

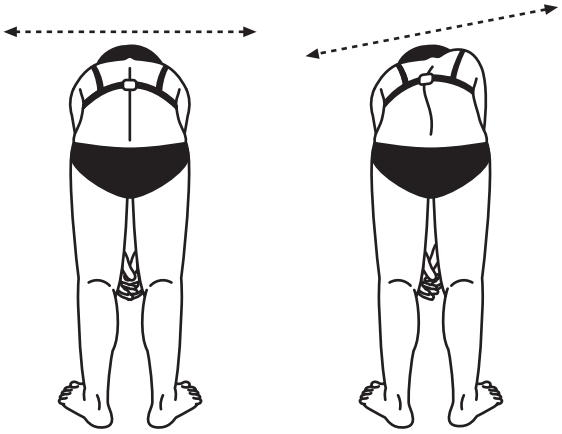

Figure 2. Prominent right "rib hump".

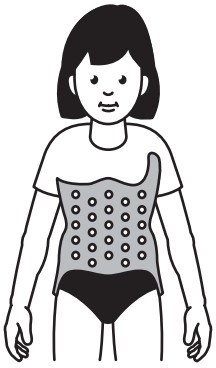

Figure 3. Scoliosis brace.

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