## Scheuermann's Disease

Scheuermann's disease, also known as Scheuermann's kyphosis, is a condition that results in an increased rounding posture of the spine. Kyphosis refers to a curving of the spine that leads to a 'hunchback' or slouching posture.

The cause of Scheuermann's disease is unknown, however it has a tendency to run in families. Scheuermann's disease develops in adolescence, between the ages of 10–15 years of age, and is more common in boys than girls.

There are four natural curves in the spine and the spine is divided into four sections. Scheuermann's disease can affect either the thoracic spine (Type I), or the lower thoracic and upper lumbar spine (Type II) (Figure 1).

To determine if a child's round-shouldered posture is due to Scheuermann's disease, the child bends forward while the spine is viewed from the side. In Scheuermann's disease, the lower thoracic spine comes to a sharp point, rather than just a normal smooth curve (Figure 2).

A lateral (side) X-ray of the spine should also be taken in standing to measure the severity of the curve. A curve of 20-40 degrees is considered within normal range. An X-ray that shows wedging of three consecutive vertebrae, the presence of Schmorl's nodes and a curve that measures greater than 45 degrees, is required to confirm a diagnosis of Scheuermann's disease (Figure 3).

Scheuermann's disease is initially treated with physiotherapy to decrease back pain and stiffness, and improve upper and lower limb flexibility. A brace may be prescribed for larger curves, while surgery may be advised for more severe curves.



Figure 1. The four sections of a normal spine.



Figure 2. Scheuermann's disease demonstrating rounded posture and angular peak when bending.



Figure 3. Lateral view of normal spine (left) and spine with wedging and a Schmorl's node (right).

251 The Royal Children's Hospital Melbourne Orthopaedics

ERC: 050763

Copyright © 2007, The Royal Children's Hospital (RCH), Victoria, Australia. Fact sheets may not be reproduced without permission

The RCH is not responsible in any way for the application of the procedures or guidelines to patient care at your facility. They are guidelines only and your professional judgment must always prevail.