

Getting straight with orthopaedics – A resource for schools – 2008

Scoliosis & spinal conditions

What are spinal conditions?

Scoliosis is a common abnormal (sideways) curvature and rotation of the spine that generally affects more teenage girls than boys. The cause may be unknown, present at birth or related to a neuromuscular disease (affecting nerves and muscles). The child or young person may experience discomfort, leg length differences, a rounded posture or uneven shoulder levels. Treatment depends on the severity of the curve.

Less severe spinal curvatures may require bracing throughout adolescent growth to prevent further curvature. If the curve continues to worsen, surgery may be required. The type of treatment the child or young person receives will depend upon the degree of curvature, age and gender. Some children or young people may not require treatment but may be monitored during growth.

Kyphosis, which is a forward bend of the spine, is a less common condition but it may require similar treatment to scoliosis (bracing, surgery or observation).

Traumatic injuries can also impact on the spine in a variety of ways. Treatment depends on the area of the spine that has been affected. Specialised braces called Halo jackets (over page), plaster jackets or spinal fusion surgery can be used to treat fractures of the vertebrae.

How are spinal conditions treated?

Apart from traumatic injuries, hospital admissions are arranged weeks in advance. This can allow for a good transition plan back to school to be developed.

If surgery is required, the average length of stay in hospital is between seven and ten days. Some children or young people with scoliosis or kyphosis may require two or three operations, each requiring a hospital stay, which can result in increased recovery time and time off school.

Following surgery, the child or young person will go home to rest for an average of four to six weeks, although this may be longer in some cases. The surgical procedure and recovery spent in hospital can be traumatic for the child or young person and their families. Support and understanding is valuable throughout this stressful period.

Follow-up takes place two weeks after surgery with the child or young person's local doctor. Then they will be reviewed at the orthopaedic outpatient clinic at six weeks, three months, six months and twelve months after surgery.



Pre-surgery



Post surgery

Implications for education

These should be read in conjunction with the General advice for school inclusion section of *Getting straight with orthopaedics: A resource for schools, 2008*.

When surgery is indicated, the child or young person will usually know the date of their surgery weeks in advance. During this time, it is important to develop a school re-entry plan in conjunction with the family and student.

Recovery

Your student may:

- Take six to eight weeks before they are able to return to school full time following a scoliosis operation. A gradual, part-time re-entry may be advisable.
- Need to wear the brace to, during and from school, as per their orthopaedic surgeon's recommendations.
- Be restricted from slouching, twisting and bending sideways if wearing a brace. The brace should not get wet.
- Experience tiredness, lethargy and pain that may impact on the quality of their concentration. There is frequently a long recovery time of up to three months. During this time, they may have a changed sense of self and body image, particularly if wearing a brace.
- Not be pulled or lifted under their armpits for at least six months.

Back at school

Your student may:

- Become easily tired and still suffer some occasional back pain. They may initially need to lie down in sick bay to give their back a rest during lunch breaks, especially in the first few weeks, or once they are attending school full time.
- Be concerned about being 'knocked over', especially between classes or during lunch breaks. Allow them to leave class a few minutes early to avoid these busy times.
- Not participate in school sport unless parental permission has been provided, based on recommendations by the treating team.
- Use a trolley bag (similar to the travel luggage style with wheels and a handle to pull on) for at least six months rather than using a backpack. School friends can often assist with carrying the bag up and down stairs.

It is important to remember that your student will appear as they did before surgery but will now have physical limitations and restrictions that can affect their social and emotional wellbeing.



Table 1: Activities allowed following spinal fusion

Activity	2–4 weeks	4–6 weeks	6 weeks – 6 months	6 months	1 year	2 years
Walking	•	•	•	•	•	•
Showering	•	•	•	•	•	•
Bath	×	•	•	•	•	•
School	×	•	•	•	•	•
Lifting	×	×	2.5 kg	4.5 kg	20 kg	20 kg
Driving	×	×	•	•	•	•
Swimming	×	×	•	•	•	•
Bike riding	×	×	×	•	•	•
Light jogging	×	×	×	•	•	•
Reclined sitting	×	×	×	•	•	•
Roller blades	×	×	×	•	•	•
Tennis	×	×	×	•	•	•
Aerobics	×	×	×	×	•	•
Football	×	×	×	×	•	•
Netball	×	×	×	×	•	•
Cricket	×	×	×	×	•	•
Skiing	×	×	×	×	•	•
Trampoline	×	×	×	×	×	×

Please note: This chart is a guide only. Allowed activities will depend on an individual's condition. Parents must check with the doctor at clinic visits before commencing activities.

Halo jackets (or Halo frames)

Halo jackets are used mostly to treat patients who have experienced trauma to the neck or cervical and/or upper thoracic spine (such as fractures or dislocations). They are applied under general anaesthetic and are used to provide stability after corrective surgery.

A metal ring (frame/halo) is attached to the head with screws. This is then fixed to metal bars that attach to a padded jacket. The frame prevents movement of the bones in the neck to allow bone fusion to occur. This may be required for three to six months.



Implications for education

These should be read in conjunction with the General advice for school inclusion section of *Getting straight with orthopaedics: A resource for schools, 2008*.

Your student may:

- Feel embarrassed about their appearance and need encouragement to return to school.
- Experience pain, fatigue and concentration difficulties after the halo is first put on.
- Have compromised balance as they have no neck movement. They will be unable to look down or to the left or right without moving their whole body. They may require a walking aid such as a walking frame, crutches or a wheelchair.
- Be able to walk but should not run or use play equipment while wearing the frame. After its removal, they may slowly return to physical activity.
- Not participate in school sport unless parental permission has been provided, based on recommendations by the treating team.
- Need to have their school uniform adapted to fit over the frame (or a larger size may suffice).
- Require several days of rest after removal of the frame.

