
Back pain in children

Summary

- Back or neck pain are common complaints in Australian children.
 - Many cases of back pain in young people are due to, or worsened by, poor posture, lack of exercise and carrying heavy schoolbags.
 - Always see your doctor for diagnosis if your child complains of ongoing back pain.
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Back pain is common in Australian children, particularly during adolescence. Some causes of back pain in young people include poor posture, inappropriate forms of exercise and carrying heavy schoolbags.

If your child's back pain persists, and felt in the same place, take your child to see a doctor. Since children with back pain may become adults with chronic bad backs, it is important to encourage sensible back care in young people.

Causes of back pain in children

While a single incident can cause sudden spinal injury, cases of nagging, ongoing back pain seem to be caused by a range of factors working in combination.

Relatively minor injuries as a result of normal sports and games may lead to muscle spasm, so some back muscles may have to work harder than others. This can cause fatigue, pain and changes in posture.

Poor posture can further contribute to back pain. A child with a sore back may avoid sporting activities, and the lack of exercise may then cause further problems.

Many things can lead to back pain in children, including:

- gender – back pain is more common in females
- age – children at 12 years and over experience significantly more back pain than younger children
- obesity and poor posture
- heavy schoolbags carried on one shoulder or in one hand
- incorrectly packed backpacks
- sedentary (sitting down) lifestyle, such as watching a lot of television or sitting or lying down in front of the computer
- injuries caused by vigorous sports such as football or horseriding, flexibility-dependent sports such as gymnastics or dance, and power sports such as weightlifting or rowing
- soft tissue injuries, such as strains and sprains
- competitive sports that demand intense training – for example, tight thigh muscles can trigger lower back pain.

Medical conditions that can cause back pain in children

Always see your doctor for diagnosis if your child complains of ongoing back pain, particularly if it wakes them at night or is associated with long periods of stiffness in the morning. Soft tissue injuries are the most likely cause, but in some cases the pain is caused by medical conditions that require professional treatment. These can include:

- injuries to bones and joints – such as compression fractures and disc injuries – these are rare in children
 - fibromyalgia – although more common in adults, this chronic pain disorder does occur in adolescents, causing back and neck pain, with muscle spasm and fatigue
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- sciatica – pain radiating down the buttock and leg, caused by compression of the sciatic nerve – this is rare in children
- Scheuermann’s disease – a growth disorder of the vertebrae in adolescents, which may produce a humpback curvature (kyphosis)
- idiopathic scoliosis – sideways curvature of the spine with an unknown cause. It is usually not painful. Any persistent pain associated with a fixed curvature must be carefully investigated
- spondylosis – a congenital structural defect in the vertebrae. Certain activities may increase the potential for pain (for example, hyperextending the spine in gymnastics).

Back pain and schoolbags

A heavy bag slung over one shoulder can, over many years of schooling, cause chronic back problems that linger into adulthood. Risks include muscle strain, distortion of the natural ‘S’ curve of the spine and rounding of the shoulders.

Parents and carers can reduce the risk of schoolbag-related back problems by making sure their child has an appropriately sized backpack and a load that isn’t too heavy.

Schoolbag risk factors

Schoolbag-related risk factors for back pain include:

- a schoolbag that weighs more than 10 per cent of the child’s weight
- holding the bag in one hand by its straps
- carrying the bag over one shoulder
- an incorrectly packed backpack
- an incorrectly fitted backpack.

Buy the right kind of backpack

Your child should have a backpack, rather than a traditional schoolbag with handles. While some schools require the use of a specific backpack, check whether it meets the following recommendations:

- Look for a backpack endorsed by an Australian professional organisation, such as the Australian Physiotherapy Association or the Chiropractors’ Association of Australia.
- Don’t try to save money by buying the biggest backpack you can find – make sure the backpack is appropriate to your child’s size.
- Choose a backpack with a moulded frame or adjustable hip strap, so that the weight of the filled backpack will rest on your child’s pelvis instead of their shoulders and spine.
- Make sure the shoulder straps are adjustable, and the rear of the backpack is padded for comfort.
- To help with packing, check that the backpack has a few separate compartments.
- Choose a canvas backpack over a leather one, as they are usually lighter.
- Make sure you take your child with you when buying their backpack. This will help you to make sure that it fits and that your child likes it. (If the style you choose is ‘uncool’, your child may compensate by carrying the backpack in a ‘cool’ way, such as over one shoulder.)
- Using a carry-on bag with wheels rather than a backpack may help avoid or minimise ongoing back pain issues.

Pack the backpack correctly

Suggestions include:

- Make sure the backpack weighs less than 10 per cent of your child’s body weight – for example, a child of 40 kg should carry less than 4 kg in their backpack. Ideally, the child in this example should only carry around 2–3 kg of books.
- If the child is expected to carry books and other items that in total exceed this weight recommendation, discuss with the school whether this is necessary. If so, discuss the option of a second set of books to be kept at home, or the possibility of accessing e-versions.

- Pack the heaviest items so they are closest to the child's back. If the heaviest items are packed further away from the child's back, this throws out the child's centre of gravity and causes unnecessary back strain.
- Make sure that items can't move around during transit, as this could upset your child's centre of gravity. Use the backpack's compartments.

Correct backpack lifting and carrying techniques

To reduce your child's risk of injury when using a backpack:

- Adjust the shoulder straps so that the bottom of the backpack is just above the child's waist – don't allow them to wear the backpack slung low over their buttocks.
- Make sure that the backpack is fitted correctly – it should follow the shape of the child's back, rather than hang off their shoulders.
- Teach your child to:
 - lift the backpack with a straight back, using their thigh muscles
 - lifted the backpack with both hands, holding it close to their body
 - slip an arm through one shoulder strap, and then the other.
- Check whether the child has to lean over to carry the load – if so, their backpack is too heavy, incorrectly fitted or wrongly packed.
- Make sure your child understands that carrying the backpack over one shoulder will cause back pain and potential injury.

Prevention of back pain in children

Suggestions to reduce spinal stress include:

- Reduce the risk of falls for younger children by always using safety straps in prams, strollers and change tables.
- Spread tanbark around home playground equipment to cushion falls.
- Encourage regular 'walking and stretching' breaks when doing homework, because sitting for long periods of time can fatigue back muscles.
- Limit television and computer time.
- Teach them how to sit properly in a chair. This means, instead of slouching, sitting up straight with their bottom square on the seat.
- Consider buying them an ergonomic chair to improve their posture while doing homework.
- Make sure their lifestyle includes plenty of exercise.
- Stress the importance of straight posture and regular stretching to strong back and core muscles.

Where to get help

- Your **GP (doctor)**
- **Physiotherapist**
- **Chiropractor**
- **Osteopath**

This page has been produced in consultation with and approved by:

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