Back pain is common in Australian children, particularly during adolescence. Some causes of back pain in young people include poor posture, lack of exercise and carrying heavy schoolbags. If pain is persistent, 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, since back pain is more common in females
- Age, since 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 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 – it is thought that 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. 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
- Fibromyalgia – although more common in adults, this chronic pain disorder does occur in adolescents, causing back and neck pain, with muscle spasm and fatigue
- Sciatica – pain radiating down the buttock and leg, caused by compression of the sciatic nerve
- Scheuermann's disease – a growth disorder of the vertebrae, 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 can reduce the risk in many ways, such as buying your child an appropriately sized backpack and making sure the load isn’t too heavy.

**Schoolbag risk factors**

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. Suggestions include:
- 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.
- The shoulder straps should be adjustable, and the rear of the backpack padded for comfort.
- To help with packing, the backpack should have a few separate compartments.
- Canvas backpacks are lighter than leather varieties.
- Children are fashion conscious and vulnerable to peer pressure, so make sure you take your child with you when buying their backpack. If the style you choose is ‘uncool’, your child may compensate by carrying the backpack in a ‘cool’ way, such as over one shoulder.

**Pack the backpack correctly**

Suggestions include:
- The backpack should weigh 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.
- Pack the heaviest items so they are closest to the child’s back. If the heaviest items are packed further away, 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, and use the backpack’s compartments.

Correct lifting and carrying techniques

Suggestions include:

• 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.
• When fitted correctly, the backpack should follow the shape of the child’s back, rather than hang off their shoulders.
• Your child should lift the backpack with a straight back, using their thigh muscles. The backpack should be lifted with both hands and held close to the body. Slip an arm through one shoulder strap, and then the other.
• If your child has to lean over, 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 – instead of slouching, they should sit 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.

Where to get help

• Your doctor
• Chiropractor
• Physiotherapist

Things to remember

• Back or neck pain are common complaints in Australian children.
• Some of the causes of back pain in young people include poor posture, lack of exercise and carrying heavy schoolbags.
• Always see your doctor for diagnosis if your child complains of ongoing back pain.