

Back pain - schoolbags

Around 70 per cent of Australian schoolchildren may be damaging their spines by carrying schoolbags. For example, a heavy bag that's slung over one shoulder can, over the 12 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 the child an appropriately sized backpack and making sure the load isn't too heavy.

Schoolbag risk factors

Risk factors for spinal damage 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.

Australian study into backpacks

A recent study published in the *Australian Spine* journal investigated the link between backpacks and back pain in schoolchildren. Selected statistics include:

- The weight of the average backpack is heavier, proportionally, than the legal load-bearing limit for adults.
- 79.1 per cent of children say their backpacks feel heavy.
- 65.7 per cent report feeling fatigued by the weight of their backpack.
- 46.1 per cent report back pain caused by their backpack.

Ways to reduce the risk

Risk reduction strategies include:

- Buy the right kind of backpack.
- Make sure it is packed correctly.
- Show your child correct lifting and carrying techniques.

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 and/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.
- Consider buying a backpack with built-in wheels.
- 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.

Make sure the backpack is packed correctly

Suggestions include:

- The backpack should weigh less than 10 per cent of your child's body weight – for example, a child of 40kg should carry less than 4kg in their backpack. Ideally, the child in this example should only carry around 2–3kg 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 – 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 contour snugly to 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.

Other suggestions

Other ways to reduce the load carried by your child include:

- Encourage your child to store books in their school locker, and only bring home those needed for homework.
- If your child insists they need to bring home more books than they can comfortably carry, see their teacher.
- Consult with your child's school about limiting the weight of children's schoolbags.
- Instead of carrying textbooks home, photocopy relevant chapters.
- Regularly clean out the backpack, since your child may be storing unneeded items.
- Regularly ask your child if their backpack is causing fatigue or pain. If so, lighten the load and adjust the fittings.
- See your doctor if your child complains of back pain.

Where to get help

- Your doctor
- Physiotherapist
- Chiropractor
- Chiropractors' Association of Australia Tel. (02) 4731 8011

Things to remember

- Around 70 per cent of Australian schoolchildren may be damaging their spines by carrying schoolbags.
- Buy your child a backpack that is endorsed by an Australian professional organisation, such as the Australian Physiotherapy Association or the Chiropractors' Association of Australia.
- The backpack should weigh less than 10 per cent of your child's body weight.
- Consult with your child's school about limiting the weight of children's schoolbags.

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

Australian Rheumatology Association (Vic Branch)

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