A parent's guide to spinal health and laptop safety

Laptops are a useful educational tool if used for appropriate periods and attention is given to their proper use. This factsheet outlines some key considerations in the safe use of laptops.

Research conducted has shown that back and neck pain may be a significant problem amongst children and young people. It is believed to be due to a combination of factors such as poor posture, everyday load carrying and the use of computers.

As the spine is growing and developing it is vitally important to address spinal health issues for a number of reasons. Firstly, to prevent spinal stress and dysfunction that causes pain, which may affect study and participation in sport and recreation. Secondly, to develop good techniques for spinal health that will carry through into adulthood.

Spinal health

Parents and carers play a vital role in nurturing children's health. Suggestions on how to encourage your child to take care of their spine include:

- Purchase a backpack as their school bag. Many schools now have backpacks as part of their uniform – check with your child's school about the regulation bag.

- Encourage your child to be organised in terms of packing their school bag – ensure they are only carrying what they need.
- In general, any load a young person carries should not exceed 10% of their body weight. When your child is carrying a heavy load, it is important that they pack the heavier items so that they will be nearer to their back and ensure that the load is kept close to their spine. It is also important that children wear their backpack over both shoulders and if possible, have a pack with a waist strap that when fastened, helps to keep the load in place.
- If your child spends time studying and/or using a computer at home, it is important for them to have an appropriate chair and that they sit correctly when using the computer.
- Encourage your child to be physically active. Physical activity is particularly important when young people are studying for major exams and are spending long periods of time sitting and reading, etc.

- Encourage your child to take regular breaks and stretch or walk around.
- Be a positive role model for your child. When you carry loads on a family outing, choose a backpack. The same applies when you are sitting and using a computer.

Recommended practices for using laptops

To reduce the risk of injury, laptops must be used correctly. Get your child into good habits before the aching starts as neck, shoulder and back problems build up over time. Some simple solutions include:

Chair

- Adjust the height of your child's chair to use the keyboard and mouse. If their feet cannot be placed flat on the floor, use a footrest. This encourages good posture, enables proper sitting height, avoids pressure placed on the back of the thigh and promotes circulation.
- Help your child adopt a good sitting posture with lower back support.

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Mouse

- Instead of using the small constricted touchpad or trackball, if available, use an external mouse.
- Ask your child to place the mouse on the side of the hand that is most comfortable. This places the arms in a neutral and relaxed position and prevents overreaching and twisting of the shoulder, arm and wrist.

Keyboard

- Use an external keyboard if available.
- Remind your child to not pound the keys. With laptops, the touch is often lighter and the keyboard bed is shallow.
- Position the keyboard so their forearms are parallel to their thighs when their feet are flat on the floor. This helps maintain blood flow in the hands and arms and decreases muscle strain and tension.

Monitor

- Centre the monitor in front of your child at a comfortable viewing distance from the screen. This places the body in a neutral position.
- Position the laptop to minimise reflective glare from overhead, windows or surrounding light sources.
- Adjust the screen so that the top is at your child's eye level. This will reduce the need to bend their head forward and encourage the use of their eyes, instead of their neck, to adjust the line of vision.
- Clean the screen regularly; dust on the screen can make it difficult to read and increase eye strain.

Work area

- Never place a laptop on your child's lap. It is hot, uncomfortable and potentially dangerous to their health.
- Ensure adequate space is available and other regularly used equipment is within their reach.
- If available, use a document holder and place it in front or next to the monitor. This prevents neck and eye strain.
- Create a surface that allows for the following body positioning while typing and using a mouse:
  – Shoulders relaxed
  – Upper arms hanging by sides
  – Right angle at the elbow
  – Forearms, wrists and hands in alignment—no bent wrists
  – Fingers resting lightly on keys.
- Ensure your child changes position occasionally; sitting in one position for an extended period of time can interfere with circulation.

Take breaks

- Encourage your child to incorporate breaks every 20–30 minutes to rest eyes, stretch hands, muscles and joints; and to break up repetition and static postures.

Transporting the laptop

- When your child is carrying a laptop:
  – Select a laptop bag designed to hold only the laptop and associated cords. Larger bags have a tendency to fill up with other items, making for a heavier load.
  – Use a bag with a padded shoulder strap and switch the laptop bag from shoulder to shoulder to relieve the weight.
  – Newer laptops are small enough to fit in backpacks so can be carried on the back and both shoulders, distributing the weight.
  – Use a laptop bag with wheels or a wheeled luggage cart.
- When placing the laptop in a vehicle (or putting it down anywhere), set the weight down close to the body. Avoid reaching across a car seat or deep into the trunk while holding the weight of the laptop.
- Eliminate the need to carry a laptop by using portable media storage (memory stick, flash cards).

Further information

Spinal health and young people
http://www.chw.edu.au/parents/ kidshealth/spinal/

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