

Laptops: Ergonomic Advice for Students

The problems

Laptops are not very ergonomic – it's not usually possible to use them in a good posture and they can cause you problems. You need to try to prevent:

- Neck or eye problems from trying to see the screen at an awkward angle
- Wrist and hand problems from bending your wrists to use the keyboard, or from over-using the other input devices (mouse, nipple, rollerball, pad etc)
- Shoulder or back problems from carrying the laptop, or from reaching too far to use it, or from using it extensively in an unusual posture such as slouching, bending over or lying down.
- Over-heating of the groin due to supporting the hot laptop on your lap (despite its name!)

You will also be aware that laptops are tempting for thieves, and by carrying one in London, on or off campus, you need to take steps to avoid being a victim of theft.

Here are some suggestions for how to prevent these problems:

Selecting a laptop

The first rule is – where possible don't use a laptop for long periods, use a desktop computer. You can arrange the desktop equipment much better so you can work with fewer postural problems, and you can see and adjust the screen much more clearly.

If you do need to buy a laptop, look out for:

- As low a weight as possible (3kg or less) for computer and accessories.
- As large and clear a screen as possible (14" diagonal or more)
- As large size keys as possible
- Detachable or height adjustable screen if possible
- As long a battery life as possible, or extra transformer/cable sets so you only carry the computer, not the cables etc
- Touch pad, rollerball or external mouse rather than 'nipple' trackpoint device
- Wrist pad between keyboard and front edge of table
- Tilt adjustable keyboard
- Facility for attaching external mouse and numeric keypad
- Friction pads underneath to prevent computer sliding across surfaces when in use
- Sufficient memory and speed (for the applications used)

- "Add-ons" that improve usability and reduce maintenance time, such as (removable) CD-ROM drives and additional memory
- Lightweight non-branded carrying case with handle and shoulder straps (or normal rucksack with extra padding inside – this will disguise the fact that you are carrying a laptop at all).

Try to hire a locker on campus, so you can leave your laptop securely when you don't need it with you. If you need to use the laptop in the library or in a cafe, get a cable lock to secure it to the table while you browse for books or re-fill your coffee.

Working on a laptop

- Find a posture in which you can keep your wrists straight (neutral, in line with your forearms), your shoulders relaxed and your back supported, and in which you feel comfortable.
- Align the laptop centrally with your body – don't twist round to use it.
- Take frequent breaks from working on the laptop, and get up and stretch and walk around, at least once an hour and more frequently if possible.
- Change your posture often, whenever it becomes even slightly uncomfortable; don't stay in one position for more than 15 minutes or so.
- Rest your eyes frequently by looking at something far away or by closing them, for a minute or two.
- Remember to blink more, to prevent your eyes feeling dry.
- Take whatever software training you can because the more skilled you are with the programs you use, the less time you will need to spend on the laptop.
- Do not support the laptop on your lap (because of the heat).
- Make sure the laptop is supported and stable and will not wobble or slide as you work.
- Adjust the laptop screen angle (and height if possible) to reduce stretching your neck, and to minimise glare on the screen.
- If possible, if using the laptop for long periods, attach an external full-size keyboard and an external mouse.
- Think before you use the laptop – try to cut down intensive usage because the more you use it, the more likely you are to develop problems.
- If you are sharing the laptop, eg in a teaching session, try to move the laptop round to face each person in turn, rather than each stretch to reach and see it.

And if you start to get symptoms such as aches and pains, associated with your use of the laptop, consult your doctor or Student Health immediately.

More information

System Concepts health and safety risks of laptop computers

<http://www.system-concepts.com/articles/article0081.html>

Healthy computing for young people

<http://www.healthycomputing.com/kids/>

Learn how to keyboard on a laptop ergonomically

<http://www.ergoindemand.com/ergonomic-laptop-keyboarding.htm>

Mobile ergonomics-safety for people on the go

<http://www.healthycomputing.com/mobile/laptop/page2.htm>

How to make your laptop workstation ERGONOMIC

<http://www.ergoindemand.com/laptop-workstation-ergonomics.htm>

Guidelines from the International Ergonomics Association

<http://www.iea.cc/ergonomics4children/guidelines.html>

System Concepts 10 Tips for comfortable working with computers

<http://www.system-concepts.com/articles/article0076.html>

Advice from an Ergonomist

If you want to contact an Ergonomist or an ergonomics company (such as System Concepts) for further advice, log on to the website of The Ergonomics Society

<http://www.ergonomics.org.uk/>, from where you can download a list of ergonomics consultants.

If you have special needs, or you want to find assistive equipment for use with laptops, such as wrist-rests, ergonomic mice, split keyboards, etc. try <http://www.rsi-shop.co.uk/>

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Make sure your battery lasts so you don't end up having to work like this!

(Incident photographed recently in a classroom in UCL)