

WHAT IS IT?

The term “mobile technology” is referring to range of equipment and devices that allow people to be mobile in their work, research and study activities. This can include, laptops, tablets and smartphones as well as all the supporting accessories such as headphones, speakers, cables, carry-bags and portable ergonomic equipment.



With an increasingly global community and an increasing demand from both employees and employers for flexible work options, the need for mobile technology is rapidly growing. Designers and producers of tech devices are rushing to meet consumer demands for functionality and aesthetics, but the supportive equipment, allowing healthy, sustained use of these devices is still developing. New “ergonomic” products



appear on the market regularly but it’s hard to keep up with our rapidly changing work practices! People are increasingly completing their work activities, not in a fixed office but out in the field, in airports, in cafes, in cars, in remote locations and in their own homes. While this mobility is often desirable and sometimes necessary, it remains vital that we maintain a focus on staying healthy and well, while completing work tasks in these highly varied settings.

WHAT ARE THE FACTS?

The most common device used for mobile work activities is the laptop. While we use our phones for a range of supporting activities, most of the larger blocks of work outside of the office will be on a laptop. Some workplaces are moving away from PC’s altogether and employees are then able to, in their usual office location, connect their laptop to a docking station that allows for a customised and ideal ergonomic set up to be maintained AND can take the same device with them for other tasks. Usually in this scenario, the laptop is only used as a stand-alone device for relatively short periods of time and is not being transported over any significant distance. In other settings, the laptop is the only device used and it is used in a variety of locations. In this scenario, it can be more challenging to ensure a good workstation set up at each location and for each period of work activity.



The main risk associated with the prolonged use of mobile technology is related to posture. Most laptops do not readily allow sufficient separation of the keyboard and screen to facilitate an appropriate posture (ie head up and eyes in line with the top of the screen and shoulders relaxed with elbows at 90degrees or more to access the keyboard) and so, where they are being used as a stand-alone device, there will be an increase both in neck flexion (head forward) and/or shoulder elevation which places undue strain on the structures of the neck and shoulder and can lead to discomfort, pain and if left unchecked, injury.

The main risk associated with phones is also postural, as above, but with the addition of very small repetitive movements through the thumb and sustained static postures of the hand to hold the device, extending through the wrist and into the forearm as well as an exaggerated, forward neck posture.



Information Sheet: Laptops and Mobile Technology

Authorised by: A/Director WEG

Release Date: 20 April 2020

Review Date: 20 April 2023

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Version: 1.0

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The use of smartphones for sending long emails and completing larger bodies of work should be avoided, as the nature of the device is such that posture is very poor (particularly through the neck) and the strain through the fingers or thumb and into the forearm is significant. Holding the phone to your ear to talk, (either with your hand or “cradling” it with the shoulder) also creates a significant strain on the neck and shoulder and can compress the cervical nerve roots leading to significant discomfort and risk of injury.



HOW DO YOU CARE FOR YOUR HEALTH?

If you are changing the way that you work, the places that you work or using new equipment (eg laptop or tablet) to do your work, you should complete a risk assessment to determine the most appropriate tools and strategies to keep you and/or your team safe and healthy. At ANU please refer to [Chapter 3.1 of the WHS Handbook – Hazard Management](#) and make use of the risk assessment tools contained within.



When using laptops in any situation where you do not have access to a docking station and a regular ergonomic set-up it is important to consider how long you will be using it as to what interventions are most appropriate. Ideally, in any situation, we recommend using a laptop stand (a lightweight and portable one) as well as an external mouse and keyboard to allow for optimal posture during laptop based work tasks.

Where this is not possible or is impractical, consider how long you anticipate spending at the laptop. It is generally accepted that a laptop, as a stand-alone device, should not be used for more than 2 hours in total over the course of any given day. Where this time is broken up into small blocks such as reading notes in a meeting or sending some emails while waiting for an appointment, the risk is somewhat mitigated by the varying postures and the limited exposure to “poor” postures. Where the amount of time spent over a day exceeds 2 hours, it is strongly recommended to use supportive accessories or consider other strategies for completing the required work.

When using a phone for talking, make sure that you use some form of hands free, either speaker, headphones or earbuds, to minimise the strain to the neck and shoulder that comes from holding a phone to your ear for any length of time. If using a phone or tablet for texting or emailing, keep this activity to an absolute minimum and take significant posture breaks in between messages or emails. Prolonged use of a phone or tablet for typing places significant strain on the neck and the hands.

Use a tablet stand if **reading from a phone or tablet** for a long time, you could even just use day to day items to “prop up” your device so that you can sit upright to read rather than leaning forward over the device.



When transporting your devices, even over short distances, consider how they will be carried. We often tend to hold things on one side of the body which can alter our gait when walking and place strain on the back, as well as strain on the arm and shoulder carrying the equipment. Wherever possible use a backpack with two straps over your shoulders or a wheeled carry bag depending on your situation and needs. Consider ways to transport not only your device but the supporting accessories that will make the device safe and functional to use. For example, some laptop cases double as a lap-desk and laptop riser, placing the head and neck in a better position when using a laptop away from a desk.

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The most important thing you can do, whatever your work set-up, is to **take regular, frequent posture breaks**. 2 minutes of dynamic activity every 20 – 30 minutes is ideal. Whether that is stretching, walking, getting up to get a drink or to talk to a colleague, find a strategy that works for you to ensure regular movement throughout your working day.

FOR MORE INFORMATION

ANU Resources:

- WHS Management System Handbook - Manual Handling and Ergonomics Chapter
- WHS Management System Handbook - [Chapter 3.1 of the WHS Handbook – Hazard Management](#)
- Pulse course – Office Essentials
- Setting up your workstation - checklist -

<https://services.anu.edu.au/human-resources/health-safety/occupational-strains-liaison-officer-network/guidelines-for-setting-up>



Further reading

- <https://www.youtube.com/watch?v=ZLwIP8cBaWA>
- <https://www.spine-health.com/blog/best-laptop-setups>
- <https://ergo-plus.com/laptop-ergonomics-tips/>
- <https://www.youtube.com/watch?v=wgQJh-vU4hk>
- <https://backcentre.com.au/laptop-ergonomics/>