Ergonomics guidance for mobile workers – quick reference sheets

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MOBILE WORKING: BRIEFING FOR EMPLOYERS

BACKGROUND

Mobile working, agile working, remote working, working from home; laptops; tablet; smartphones; cloud storage; 24 hour access and emerging technology all drives how business works today. This technology allows business to be flexible and makes work about what you do, not where you work. However, there are emerging health issues increasingly being linked to mobile technology including musculoskeletal disorders. These disorders can cause staff discomfort, reduced productivity, potential for litigation and potential sickness absence.

Technology has moved so fast that there is little guidance currently available for employers to help them to understand what the risks are and how to take action to reduce and control those risks.

WHAT ARE THE RISKS?

The main risk associated with use of mobile devices is the poor posture people adopt when using the mobile devices. This tends to be neck tipped down and forward with associated hunched and rounded shoulders, combined with repetitive thumb, finger and wrist actions form swiping or tapping. Sustained periods of work in these postures are known to cause musculoskeletal disorders, predominantly in the neck and upper limbs. These disorders can cause high levels of pain and discomfort and ultimately result in staff taking sick time or being unable to work.

WHAT IS THE SIZE OF THE PROBLEM?

- 14% increase (30,000 new reports) of MSDs in the neck and upper limbs between years 2013/14 and 2014/15. (HSE: 2015 Statistics report)
- 43% of all musculoskeletal disorders are in the neck and upper limbs – accounting for over 4 million working days lost annually (HSE: 2015 Statistics report)
- 74% of reported musculoskeletal problems affect the neck and/or shoulders. This is a 2009 figure which predates Tablets and was taken at a lower smartphone market saturation (CSP: House of Lords briefing - 2012)

WHAT IS THE LEGAL POSITION FOR EMPLOYERS?

Mobile devices are pieces of Display Screen Equipment and, when issued for and used as, a significant part of an employees work, the Display Screen Equipment (DSE) Regulations will apply. Many employers and commentators get confused between the Regulations themselves and the Guidance to the Regulations. It has been acknowledged that the HSE guidance document is dated now with old fashioned pictures and limited reference to new and mobile technology. The Regulations themselves are still fit for purpose and applicable to mobile working.
What do employers have to do?

Employers are required to assess the risk associated with mobile working and to take steps to reduce the risks identified to the lowest extent reasonably practicable.

There are some simple steps that can be taken and managing the risk should not be seen as onerous or as a burden, it should form an integral part of a business risk management plan.

How can Mobile Office help?

Mobile Office works with businesses to help them:

- Identify the ergonomics and health risks in the business associated with mobile working and use of mobile device
- Inform employees about the risks from mobile devices and what they need to do to reduce the risks
- Identify and put in place reasonably practicable risk control measures
- Comply with health and safety legislation

Mobile Office offers the unique Mobile Working Risk Management System© which comprises:

- Our detailed 56 page guidance document on mobile working risks and how to manage them
- A template health and safety policy document for mobile working
- A comprehensive e-learning video
- An online competence assessment
- An online risk assessment
- A project tracker to check how your staff are progressing with the roll-out of the assessments
- Risk assessment report and competence certificate for each employee
- Access to our LinkedIn private client forum for exchange of ideas
- Regular mobile working newsletter with updates and ideas for risk management

Mobile Office can also offer:

- Management audits to assess existing mobile working management with practical and pragmatic advice on a phased risk management approach
- Training
  - Train the trainer training, to allow businesses to increase competency to allow mobile working management to be integrated into the risk management process on site
  - Training for employees as part of a roll-out of risk control measures
- Impartial advice on equipment

More information?

If you, or people working for you, use mobile devices (laptops, tablets, smartphones etc) to do significant amounts of work on, our website provides more guidance and tells you about our Mobile Working Risk Management System©

Follow our social media pages for tips, product ideas and the latest mobile working news.
SMARTPHONES
Smartphones give us fantastic work flexibility; multiple strands of communication, and they are increasingly seen as a valuable link in our workflow, letting us access vital documents on the move.

But (there is a but!) their technical capability outstrips their ergonomics. While you can write long emails and documents or do spreadsheet work on them, it’s unlikely you’ll be comfortable doing so. Even shorter bursts of activity, if frequent enough, can cause pain and discomfort – mainly in the wrist, thumb and neck.

This short advice sheet gives you tips on how to manage the risk of strain injury from working using smartphones.

Very simply, aim to do as many of the Do’s and as few of the Don’ts as you can, whatever the situation you find yourself mobile working in!

**DO**

Hold your phone up – aim to keep your neck as straight (neutral) as you can.

Rest your arm wherever possible to help with holding your phone up.

If you can’t rest your arms, then take frequent breaks.

Hold your phone in one hand and type with the other hand.

Use a smartphone riser (not just a stand) and an external Bluetooth keyboard if your work demands significant amounts of text entry.

Use a stand/case stand – and raise the smartphone height on books, magazines (if you don’t have a riser).

Use a stylus as a way of varying your wrist posture when selecting on screen.

Use a smartphone grip or a case with a grip, if your work involves walking about while using it.

**DO**

Try using hotkeys and shortcuts if you are using an external keyboard – to cut down on reaching to the screen.

Use dictation/voice commands if you don’t have an external keyboard, and your work involves significant amounts of text entry.

Make use of the voice text facility.

Consider using a Bluetooth pen instead of typing into the smartphone screen.

Remember to take eye-rest breaks even when set up optimally – 20-20-20 – every 20 minutes, look at something 20 feet away for 20 seconds.

Rotate your screen to increase character size – e.g. view documents with the screen in landscape.

Remember to zoom in if it helps to read or view details without making the task you are doing more awkward.

Keep your screen clean and avoid working while there is glare (strong reflections) on the screen.
DON’T

Don’t hold your phone down close to your body or at/or below chest height.

Don’t hold your phone in one hand and type with the thumb of the same hand.

Avoid doing sustained mobile work (15+ mins.) on a smartphone. Even set up with a keyboard etc. the screen size is not designed for reading at typical monitor or even tabletop distance.

Don’t do significant amounts of text entry unless using an external keyboard, or dictation (or via a Bluetooth pen).

Don’t hold your smartphone up for long periods – it will strain your wrists and shoulders (trapezius muscles) and you may still develop neck pain.

Don’t support your smartphone using your pinky curled under the bottom edge.

DO

Make sure your device’s automatic brightness adjustment is not switched off.

Sit and stand – try to vary your posture and make the most of smartphones allowing you to.

Remember to BLINK! We just don’t blink as much when we use devices and screens, this can be a factor leading to digital eyestrain.

DO

Check your posture regularly – try to make posture checks a habit – don’t slump you shoulders, keep your neck straight.

Listen to your body – don’t get worried about every little ache and pain, but try to pick up on discomfort that you can ease by adjusting to a better, more neutral, working posture.

Stop-Drop-Flop – take micro pauses e.g. at the end of an email or text, stop what you are doing, stretch and let your shoulders drop, and let your hands flop by your sides.

MORE INFORMATION?

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TABLETS

It’s no wonder tablets are so popular; lighter and more portable than laptops, with bigger screens and greater work flexibility than smartphones. No surprise that they are increasingly used for work across many industries and business sectors.

Tablets are great news for business, but we can find ourselves working in poor postures when we use them, over the long-term causing loss of posture, pain and discomfort.

The body area at most risk from tablet use is our neck. Most tablets aren’t light enough yet to hold up like a book or magazine for long periods, so we tend to hold them lower, which results in poor neck posture. When they are on a table or desk we forget to prop our tablets up; we use them flat or at a shallow angle which can also lead to poor neck posture.

This short advice sheet gives you tips on how to manage the risk of strain injury from working using tablets. Because of the range of uses for tablets and the wide range of mobile working situations, prescriptive advice can be long-winded so our tips are basically two lists – Do’s and Don’ts.

Very simply, aim to do as many of the Do’s and as few of the Don’ts as you can, whatever the situation you find yourself mobile working in!

**DO**

Use a tablet riser (not just a stand) and an external Bluetooth keyboard if your work involves significant amounts of text entry.

Use a stand/case stand – and raise the tablet height on books, magazines (if you don’t have a tablet riser).

Use a stylus to improve wrist posture when selecting on screen, especially if you have put your tablet on a riser or stand.

**DO**

Use a tablet grip or a tablet case with a strap, if your work involves walking about while using it.

Try using hotkeys and shortcuts if you are using an external keyboard – to cut down on reaching to the screen.

Use dictation/voice commands if you don’t have an external keyboard, and your work involves significant amounts of text entry.

Consider using a Bluetooth pen instead of typing into the tablet screen.
**DO**

Remember to take eye-rest breaks even when set up optimally – 20-20-20 – every 20 minutes, look at something 20 feet away for 20 seconds.

Keep your screen clean and avoid working while there is glare (strong reflections) on the screen.

Make sure your device’s automatic brightness adjustment is not switched off.

Remember to BLINK! We just don’t blink as much when we use devices and screens, this can be a factor leading to digital eyestrain.

Check your posture regularly – try to make posture checks a habit – don’t slump your shoulders, keep your neck straight.

**DO**

Listen to your body – don’t get worried about every little ache and pain, but try to pick up on discomfort that you can ease by adjusting to a better, more neutral, working posture.

Stop-Drop-Flop – take micropauses e.g. at the end of an email or text, stop what you are doing, stretch and let your shoulders drop, and let your hands flop by your sides.

Sit and stand – tablets can give you the option to do either, which can be a great advantage.

Avoid working in ‘informal’ postures (e.g. tablet positioned off to one side, or lying on your front).

If you are seated reclined, if possible raise your tablet by propping it up on your knees (if there is no suitable surface to sit it on, or if you are interacting heavily with it as opposed to watching a film etc.)

**DON’T**

Don’t work for more than 15 or 20 minutes at a time (without a break) unless you have set up optimally (i.e. with a keyboard, input device, tablet stand).

Don’t do significant amounts of text entry unless using an external keyboard, or dictation (or via a Bluetooth pen).

If seated upright, don’t rest your tablet on your lap while you use it – your neck posture will be poor.

Don’t hold your tablet up for long periods – it will strain your wrists and shoulders (trapezius muscles) and you may still develop neck pain.

Don’t support your tablet using your pinky at the base.

**MORE INFORMATION?**

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Laptops are the most essential mobile working device for many people. Combining power and portability they are the benchmark work device.

However, because laptops have linked keyboard and screen this can lead to poor posture. If you use a laptop without a riser – i.e. on your lap or directly on a table / desk, the low screen height is likely to lead to poor neck posture. And if you raise the screen to an optimal height, the keyboard becomes unusable.

This short advice sheet gives you tips on how to manage the risk of strain injury from working using laptops.

Very simply, aim to do as many of the Do’s and as few of the Don’ts as you can, whatever the situation you find yourself mobile working in!

**DO**

- Use a laptop stand, an external input device and an external keyboard if you plan to work for longer than 30 minutes at a desk / table.

- Choose a riser that can be adjusted to lift the top of your laptop screen to approximately the same height as your eyes level.

- Use a laptop wedge stand if a full stand is impractical. Aim for one that tilts the keyboard to around 12 degrees – you can measure the angle with your smartphone!

- If your seat is adjustable, make changes so that it is more comfortable:
  - **Eyes** – raise screen so top is in line with your eyes.
  - **Elbows** – sit so that your elbows are at 90deg when typing.
  - **Legs** – make sure your legs are supported and that your feet are supported either by a footrest or on the floor.

- If you are unable to avoid using it on your lap try to raise your laptop using books, or a briefcase etc. Just make sure that whatever you use is stable and does not block cooling vents.

- **Remember EEL** -
  - **Eyes** – raise screen so top is in line with your eyes.
  - **Elbows** – sit so that your elbows are at 90deg when typing.
  - **Legs** – make sure your legs are supported and that your feet are supported either by a footrest or on the floor.

**DO**

- Try using hotkeys and shortcuts – work out which ones you could use the most and try to learn one per day.

- Take a rest break (2 to 5 mins) at least every 20 minutes if you are using your laptop directly on a table or desk – without a riser or external keyboard.

- Remember to take eye-rest breaks even when set up optimally – 20-20-20 – every 20 minutes, look at something 20 feet away for 20 seconds.

- Keep your screen clean and avoid working while there is glare (strong reflections) on the screen.

- If your laptop has automatic light level adjustment, make sure your device’s automatic brightness adjustment is not switched off.

- Remember to BLINK! We just don’t blink as much when we use devices and screens, this can be a factor leading to digital eyestrain.

- Check your posture regularly – try to make posture checks a habit – don’t slump your shoulders, keep your neck straight.
DO

Listen to your body – don’t get worried about every little ache and pain, but try to pick up on discomfort that you can ease by adjusting to a better, more neutral, working posture.

Stop-Drop-Flop – take micro pauses e.g. at the end of an email or text, stop what you are doing, stretch and let your shoulders drop, and let your hands flop by your sides.

Sit and stand – try to vary your posture – as long as you can very between sitting and standing postures which are reasonable.

DON’T

Don’t work with your laptop directly on your lap

Don’t work for long periods (20mins) with your laptop directly on a desk / table (without a full stand or a wedge stand)

MORE INFORMATION?

If you, or people working for you, use mobile devices (laptops, tablets, smartphones etc) as a significant part of work, please visit our website. There you can find more detailed guidance to download, and links to our mobile working risk management systems.

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The cycle of poor posture and discomfort

When you are out and about working on mobile devices, the chances are your work set up is not ergonomically optimal (see our separate blog on optimal ergonomic working arrangements). This makes it all the more important to do some quick and simple stretches and do exercises when you take short frequent rest breaks.

There is a wide range of exercises with a lot of good examples online, but we have selected the ones below on the basis of effectiveness as well as discreteness – we are realistic, whole-body yoga on the train or bus is not really an option!

Important warning

If a stretch or exercise causes you any pain, stop doing it immediately! If you do have persistent problems with this, speak to your doctor of physiotherapist about it.

Our exercises for mobile working

Shoulders

Shoulder lift
Raise shoulders up towards ears until you feel muscles tighten, hold for 4 seconds. Then let your shoulders drop. Repeat 3 times.

Shoulder pull back
Rotate your shoulders back so that you feel your shoulder blades tighten, hold for 4 seconds. Then let your shoulders drop. Repeat 3 times.

Shoulder rotation
Rotate shoulders in a circle back for 3 rotations and forward for 3 rotations.

Massage for shoulder posture
Hunched shoulder posture over a long period leads to shortening of the pectoral muscles in the chest. This results in our shoulders being permanently pulled forward more than they need to be – which creates a vicious cycle of poor shoulder posture. To correct this, the shoulder exercises above will help, but you may also need to also loosen your pectoral muscle, and massaging them will help this.

Neck

Neck roll
Drop your chin to your chest and slowly rotate your head (moving from looking to side to looking up and so-on). Repeat 3 rotations clockwise, 3 anticlockwise.

Neck tilt
Slowly tilt your head from side to side – hold for 4 seconds when fully tilted either side. Repeat 3 tilts to each side.

Neck stretch
Push your chin forward – like a turtle, hold for 4 seconds then keeping your head straight, draw your chin back until your muscles tighten, hold for 4 seconds. Repeat 3 times.

Neck turn
Keeping head level, rotate head to look sideways. Rotate until you feel muscles tighten. Hold for 4 seconds then rotate to opposite side. Repeat 3 times.
Wrist exercises

Hand rotations

With your hand straight (unclenched) rotate your hand slowly in a circle. Repeat 3 times in each direction.

Fingers stretches

Open your hand flat – fingers spread as wide as you can, and vertical (thumb pointing upwards). Keep your fingers stretched as wide as you can and hold for 6 seconds, then release.

Shake out and relax

Okay so it’s not really an exercise, but our wrists have a pretty tough life. We expect a lot from them. Putting down our phone, tablet, pen, keyboard, mouse etc. and simply shaking them out will be a much needed moment of rest!

Be careful when stretching and exercising

Remember, if a stretch or exercise causes you any pain, stop doing it immediately! If you do have persistent problems with this, speak to your doctor or physiotherapist about it.

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This is how our system works! It’s simple and we will guide you through it.

**First Steps**

You’ve identified a need for ergonomics risk management for mobile workers.


**Setting it all up - we do this**

You receive an access link to:
- Detailed guidance documents
- Staff briefing
- Policy document

You receive an email from us asking for your employee names and email addresses.

By email, you send us a list of names and email addresses of employees who will be risk assessed.

We’ll email directly to your employees a link to their personal competence assessment and risk assessment.

**Over to you to brief your staff and do the assessments**

Your employees complete the staff briefing and their online competency assessment.

Your employees and their manager/supervisor complete the mobile working risk assessment.

**Keeping track of progress**

We will provide you with updates on progress of your mobile working risk assessment roll-out and we give you access to your unique live progress tracker.

**Your ongoing risk management duties**

You review the risk assessments and mobile work practices at set intervals or if there are any significant changes in equipment/methods of work.

You draw up an action plan(s) to manage the risks.

You identify any significant issues and possible improvements or risk reductions based on the risk assessments which we provide.

**Final feedback**

We generate your employees’ risk assessment reports and competence certificates.

We send you a link which provides managerial access to cloud storage of competence assessments and risk assessments.

We email your employees a copy of their risk assessment report and competence certificates.