

# Get Fit for Mobile Working

## Flexible & Mobile Working

### A good thing

Technology has not just changed the way we communicate with colleagues, but has fundamentally changed the nature of work itself. Work is no longer a place you go, but something you do. That 'something' can now be conducted as easily from home as the office, as confidently from the beach as the worksite.

But what does it actually mean to 'work flexibly'? It covers several concepts, some of which you will doubtless already have put into practice.

- Mobile working; with the widespread availability and affordability of mobile phones and smartphones like the BT Office Anywhere or the BlackBerry, you need never be out of touch with your colleagues.
- Remote working; being able to access a network anywhere ensures that you have access to all of your data whether you're at your home computer, your laptop in a coffee shop, or your desk.

By having the freedom to be connected where and when you want, the decision of how you work is one which is determined by your needs, your organisation's needs, and your customers' needs rather than being constrained by physical location.

The benefits of flexible and mobile working are clear. Recent studies show 83%<sup>1</sup> of us think mobile working brings competitive advantages in business, whilst 54%<sup>2</sup> of managers believe flexible workers have a better quality of life. So, connecting to any network, anywhere, anytime, is good for both the bank balance and the work-life balance.

Of course you need the right tools, used in the right way, to make this happen. Working flexibly might involve using a laptop, PDA, smart phone, or other communication device. While these can bring about economic and personal benefits, some issues can potentially arise through their use, if suitable care and attention isn't paid to how and where they are used.

Recent BT research<sup>3</sup> shows that a quarter of workers are unaware that all businesses are legally responsible for their health and safety whenever they are working, whether or not they are in the office. Alarmingly, less than half (46%) of mobile workers are actually receiving guidance about staying safe when working on the move. This is compounded by a lack of awareness amongst workers of potential health pitfalls when working on the move. Whilst 81% of those questioned are aware of their posture when at their office desk, just 59% remain alert to the importance of good posture when working outside the office.

So, while we're increasingly working on the move, we're neither aware, nor always equipped with the knowledge to use mobile technologies responsibly.

This guidance from BT Business provides information on what you can do to ensure you and your colleagues work comfortably now, and in the future, when using mobile equipment.

<sup>1</sup> Economist Intelligence Unit

<sup>2</sup> BT 21st Century Life Index Report, 2008

<sup>3</sup> BT Openzone/ICM survey of business travellers, 2007

## Staying out of trouble

### Potential issues caused by mobile working

The type of issues that can occur through working with laptops and hand held devices include:

- **Aches and pains** – particularly in the back, neck, shoulders, arms, wrists and hands. These can occur if you adopt awkward postures, make the same movements repeatedly, and don't vary your posture.
- **Visual discomfort** – using mobile equipment does not damage your eyes or eye-sight, but it may cause visual fatigue and discomfort, such as blurring and sore eyes, and headaches. The causes of this include long periods of time looking at the screen, reflections on the screen, characters being too small, and inappropriate colours or inadequate contrast.
- **Stress** – this is an adverse reaction to excessive pressures and demands. It can lead to problems such as depression and anxiety, and some physical problems such as indigestion. Modern working practices can be stressful, and computers and mobile working can add to this if not used with care.

Issues like these are not an inevitable result of mobile work, and this guidance will help you to avoid them. It contains general guidance on posture, viewing the screen and reducing stress, as well as specific guidance relating to laptop use and hand held devices such as smart phones and PDAs.

## Striking a pose

### Good posture

The biggest cause of discomfort when using equipment is poor posture. Awkward postures – where you stretch, twist, slouch or lean – place strain on the body. Whenever using mobile equipment you should try to set it up in such a way as to avoid these awkward postures.

The following advice will help you achieve a good posture when working:

- If you are working at a desk make sure you have adjusted your chair so it supports you. If you don't have an adjustable chair, only use the laptop for short periods.
- Use the backrest of your chair and don't slouch forwards; keep your shoulders above your hips.
- Don't stick your chin forward – hold your head so that your ears are above your shoulders.
- Relax your shoulders.
- Don't stretch when using the keyboard or mouse – bring them close to you so you can keep your upper arms relaxed beside your body.
- Don't rest your wrists or forearms on the edge of the desk – raise your seat height to avoid this.
- Position items so you don't twist your back or neck; the screen should be in front of you.
- Make sure there is nothing underneath the workstation that restricts your posture.
- Take regular breaks away from the keyboard and screen (e.g. get up and walk around or undertake other work tasks such as phone calls).
- Don't hold the phone between your ear and shoulder while writing or keying – you're likely to get a sore neck!



**Not enough hands**  
Save your neck some pain

- ✗ Don't hold your phone between your ear and shoulder while multi-tasking – you're likely to get a sore neck.
- ✓ Use a hands free device whenever possible.
- ✓ Make phone calls during your regular breaks.

## Looking good

### Comfortably viewing the screen

Avoid visual discomfort and headaches with the following tips:

- Look away from the screen regularly to give your eyes a break.
- Adjust the brightness and contrast on the screen. You may also find it helpful to change the font size, or font and background colours. In Windows this can be done through the Control Panel/Display/Appearance menu.
- Keep the screen clean; smudges from fingers can make viewing it more difficult.
- Ensure your laptop screen is the right distance away (it should be roughly an arm's length away from you) and at the right height (top of the screen approximately level with your eyes).
- Close window blinds where these are available; move from brighter areas to shaded areas and turn off or relocate any lighting that is causing a problem; adjusting the angle of your screen may also help.
- Consider an eye test to check whether you need glasses for computer work. Your employer may pay for this if you have to use a computer for work.

**As the MD of a private medical company, Kim Coe needs to be in touch with her staff throughout the day. She uses the BT Office Anywhere smart phone and a laptop to help her keep in touch, and she takes the equipment into a wide variety of situations, including outdoors, in transport and in hotel rooms. She has made some adaptations to be able to work more comfortably:**

- When using her laptop in a hotel room she uses a cushion, pillow or rolled up blanket to support her back.
- She has increased the font size on her smart phone in order to view the screen more easily.
- The company has a once-a-day policy for staff checking on emails if they are out of the office (e.g. delivering training). This is to reduce any stress associated with the perceived need to be always in touch; they are not expected to check more than once a day.

## Give yourself a break...

### Breaks and reducing stress

Taking a break from work, and moving around, gives your eyes and body an opportunity to recover from the strain placed on it by awkward postures or repetitive movements. Short, frequent breaks from computer work are advisable (e.g. a couple of minutes every half hour or so). During a break you should change your posture (e.g. get up and walk around or do other tasks such as telephone calls) and look away from the screen.

Some people find new technology, unfamiliar software or system crashes contribute to stress. If you are experiencing these problems, talk to your manager to see what can be done. Some ways of reducing stress are to:

- Take regular breaks from computer work.
- Separate your home and work life; turn off the equipment when you are not working or consider using settings to determine how often you get email updates at intervals to avoid constant interruption.
- Think about how your work is organised, and whether you can change this to reduce peaks of work or other causes of stress.

## In the palm of your hand

### Comfortable use of hand held devices (PDAs, touch phones, smart phones)

Hand held devices allow you to undertake familiar desktop applications while on the move, but obviously have small screens and keyboards. For these reasons they should not normally be used as your sole computing equipment. However, they can be useful for emails that require a short response, and for management of your documents, diary, address book and other business related issues, all of which can be conducted during previously 'dead time' between meetings and whilst travelling.

## General recommendations

- Avoid using these devices for long periods; take regular breaks; stretch and relax your fingers and hands often.
- Write short messages; be succinct, and use acceptable abbreviations. You may be able to program the software to autocorrect an abbreviation to the full word (e.g. 'bw' to 'best wishes'). Set up an auto-signature containing contact details, to save typing them repeatedly.
- Keep the screen clean and free of finger marks to reduce visual fatigue.
- Investigate what changes you can make to the display size and colours, so that you can adjust it to suit your needs.
- Protect the device in a case, or select one where the screen is covered so that it doesn't get scratched and become more difficult to read.
- A separate keyboard may be helpful if you are using the device for a significant amount of data input.
- Try to keep your wrists straight and relaxed when holding and using the device
- Remember to turn it off, so that you can separate your home and work life!



**In the palm of your hand**  
Fingers as well as thumbs

- ✓ Shows best position to hold a smartphone while on the move.
- ✓ Try to keep your wrists straight and relaxed when holding and using the device.
- ✓ Alternate between fingers and thumbs when keying.
- ✓ Try using the end of a pen or pencil to help you press keys more easily.

Specific advice for working comfortably with different types of hand held device is given below.

## Big things come in small packages

### Devices with a QWERTY keyboard

Recommendations are:

- Users often use the keyboard with one thumb, but repeated use of the thumb with the range of movement required can pose the risk of discomfort. To reduce this risk, alternate between your thumbs or, better still, try to use your fingers.
- If using it for a length of time, rest the device on a work surface so that the base of your hands are supported. This will also allow you to use fingers from both hands rather than your thumb, which will help reduce the risk of discomfort. However, make sure that you don't lean forward over the device in order to see the screen; angling it slightly by leaning it on something may help to avoid this. Alternatively, some devices have an angled screen.
- If you cannot rest the device on a work surface, hold it so that your inputting hand is supported.
- If you find the keys are small for your fingers, you may find using the rubber end of a pencil is a good way of pressing the keys. This allows larger muscles to be involved with activating the keys, and they are better able to withstand repeated movements and force.
- Avoid pressing the keys too heavily, and don't grip the device. Muscle tension increases the risk of discomfort.
- Consider whether a larger, external keyboard may be useful for you.

### Feeling Touchy

Touch screens allow the user to interact with images on the display, and can be useful for navigating through software. This can be done using either the finger or a stylus. The most appropriate input method is likely to depend on the software being viewed, the size of the images, the size of the screen, and the characteristics of the user. Touch screens may be difficult for those with large fingers to use precisely.

### Finger activated

Repeated or prolonged use of the fingers on a touch screen may cause discomfort, and there is potential for altered sensation on the finger-tips with prolonged use.

- Support the hand that is interacting with the screen (e.g. rest the hand on the base of the device), so that fine movements can be made by the finger.
- Investigate whether you can adjust the size of the icons or menus so that they are easier to select accurately.
- It can be useful to have a stylus or keyboard as an alternative to the touch screen, if using it for any length of time, or entering data.

### Stylus input

A stylus is typically very thin and light, and can be difficult to hold and control, particularly if you have large hands, or limited finger mobility. Consider using something larger which is easier to hold, such as a pen with the nib retracted.

- Support the hand that is holding the stylus (e.g. rest the hand on the base of the device or on the work surface).
- Configure the whole screen to accept stylus input, rather than just one small area; larger hand movements reduce the physical stress on the hand.
- Writing higher up the screen may allow your hand to be supported while writing if you are not able to rest the device on a work surface.
- Train the device to read your handwriting; if it expects input in particular format, take the time to learn these.
- Consider whether you find keyboard input (using the stylus on a display-based keyboard) better than writing for some tasks, and change between them as appropriate.

## Getting your head around the numbers

### Devices with a numeric keyboard

Devices, such as mobile phones, with a number keyboard with the option of text entry, are usually used with the thumb.

- Try alternating between your thumbs, or use your fingers to avoid overloading only one.
- Only use these devices for dialling phone numbers and for short text messages.
- Predictive texting and abbreviations reduce the number of keystrokes required, and should be used where possible.

## Rolling around

### Navigation wheels and scroll wheels

Mobile devices typically have a four-way navigation wheel or a scroll wheel.

- If using the navigation wheel to navigate down a list, or within a document, keep the selected button pressed down rather than repeatedly pressing the button.
- Using the scroll wheel (for moving up and down a page) will help you to read long documents.
- You may be able to change the software to adjust the speed with which the page scrolls up/down when using the scroll wheel (as on the BT Office Anywhere or the BlackBerry).

## M=Mobile

### Mobile phones

- Program in regularly dialled numbers so that you don't have to press as many keys.
- Consider an ear piece or headset so that you don't have to hold your phone to your ear. This is particularly helpful if you might be using the laptop while also speaking on the phone.

#### Useful BlackBerry email shortcuts:

Move to the top of a message list	Press T
Move to the bottom of a message list	Press B
Move to the next date	Press N
Move to the previous date	Press P
Move to the next unopened item	Press U
Reply to a message	Press R
Reply to all	Press L
Forward a message	Press F
File a message	Press I
View the email address of a contact, in a message, highlight the contact	Press Q
View the display name again	Press Q

#### Useful BT Office Anywhere shortcuts:

Copy the highlighted text	CTRL+C	Redo the last action	CTRL+Y
Cut the highlighted text	CTRL+X	Make the selected text bold	CTRL+B
Paste the highlighted text	CTRL+V	Make the selected text italic	CTRL+I
Close a program	CTRL+Q	Make the selected text underlined	CTRL+U
Open a new file	CTRL+N		
Undo the last action	CTRL+Z		

## Lapping it up

### Comfortable laptop use

Feel as if you see more of your computer screen than you see of your partner? It is likely that your laptop computer is the piece of mobile equipment you use for the longest periods.

But what are the specific challenges? Because the screen and keyboard are fixed together, the screen is typically too low for comfortable viewing, and to get the screen the right distance from you the keyboard might be too far away; this can cause awkward postures. Occasional short periods of time in poor postures are unlikely to cause significant health issues, but if regularly repeated or maintained, they can cause discomfort.

You may use the laptop in a variety of situations, but you should try to position and use it in a way that prevents discomfort. Wherever you use the laptop you should follow the advice in the 'Striking a pose' section. In addition, there is advice below for specific situations where you might use the laptop.

### Hot desking/in someone else's office

#### Using the laptop with an adjustable chair

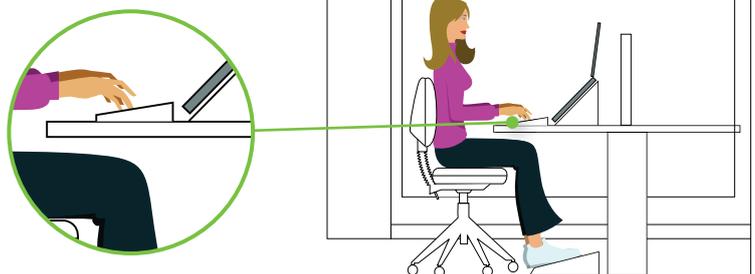
If you are using a laptop at a desk where you have an adjustable chair (e.g. hot desk working):

- Connect a separate keyboard and mouse to the laptop so that you can position them independently of the screen.
- If you use the laptop screen rather than a separate screen, raise the height of the laptop (e.g. by placing it on a stand), so that the screen is at a suitable height for you to view it. You can then also position it a suitable distance from you.
- Thin keyboards, small mice, and thin laptop stands are available that you can carry with you in your laptop bag, allowing you to set up a good workstation wherever you are working.
- Position the screen so it is directly in front of you, and the keyboard and mouse so they are easy to reach. Remember in particular to keep the mouse close to you.
- If you share a workstation with other people, always take time to adjust the chair and the position of the equipment whenever you start working, to make yourself comfortable.

### Borrowing a desk in another office

#### Sitting pretty

- ✓ Good posture, with upper arms by body and forearms horizontal, without resting on the desk, and back supported.
- ✓ Connect a separate keyboard and mouse to the laptop so you can position them independently of the screen.
- ✓ If you use the laptop screen, place it on something (e.g. a stand) so it is a comfortable viewing height and distance.



## Hotel rooms/coffee shops

### Using the laptop with a fixed height chair

If you are using a laptop at a table with a fixed height chair (e.g. in a hotel room, coffee shop etc), you are more likely to have poor posture and potential for discomfort if you don't make the right adjustments:

- Consider whether the chair is too low for you to be able to sit with your forearms horizontal. If this is the case, you may find sitting on a cushion to raise your seat height is helpful. You should be careful about resting your arms on the edge of the desk, particularly if it has a 90° edge, as high pressure on your forearm can cause discomfort.
- Consider using a cushion, or rolled up item of clothing to support the small of your back if the chair does not offer appropriate support.
- If possible, avoid using a laptop in this form of seating for extended periods of time without a break.



### In a coffee shop

#### Watch your back

- ✗ Screen too low: uncomfortable neck position.
- ✓ Be careful about resting arms on the edge of the table, as high pressure on the forearms can cause discomfort.
- ✓ Consider using a cushion, rolled up towel or item of clothing to support the small of your back.
- ✗ Don't leave your bag unattended: mobile equipment can be a target for theft.

### Using the laptop on a table

If you are using a laptop on a table not designed for a working environment (e.g. when on a train, in a coffee shop):

- Ensure your forearms are not leaning on the edge of the table for long periods as this can lead to discomfort.
- Take regular breaks as this will never be an ideal working position.
- Position the laptop so you can reach it comfortably, without leaning forwards.



### On the train

#### Under pressure

- ✗ Seat too low relative to the table; ensure forearms are not leaning on the edge of the table for long periods which can lead to discomfort.
- ✓ Position laptop so you can reach it comfortably, without leaning forwards.
- ✓ Take regular breaks every 30-40 minutes.

## Airports

### Using the laptop on your knees

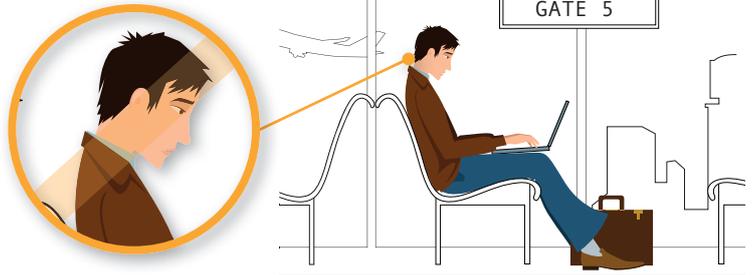
If you have to place a laptop directly on your knee (e.g. when on a train, in a waiting room):

- Place something (e.g. files, magazines etc) between your laptop and knees, to bring the laptop to a suitable height for keying; your wrists should be straight as you are typing.
- Take regular breaks from this, as the screen is likely to be too low for comfortable viewing.
- Avoid working in this way regularly or for long periods.

### At the airport

#### Pain in the neck?

- ✗ Neck has to be inclined to look at the screen – could lead to discomfort.
- ✓ Take regular breaks from this, as the screen is likely to be too low for comfortable viewing.
- ✓ Place something (e.g. magazines etc) between your laptop and knees to protect from the heat of the laptop and bring it to a suitable height for keying; wrists should be straight when typing.



## Mighty Mouse

### Using the mouse with the laptop

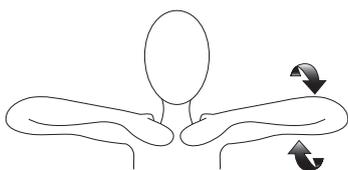
The touch pad (or toggle) can be awkward to use, and the repeated finger movement required can cause discomfort. To avoid this:

- Consider using a separate mouse that you can connect to the laptop. Small mice are available that you can easily carry with you, but consider keeping a standard sized mouse at your regular place of work.

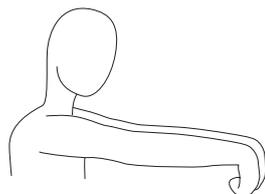
#### Useful keyboard shortcuts:

Open a document	CTRL+O	Copy highlighted text	CTRL+C
Save a document	CTRL+S	Paste highlighted text	CTRL+V
Print a document	CTRL+P	Undo last action	CTRL+Z
Cut highlighted text	CTRL+X	Redo last action	CTRL+Y

- All operations on standard software can be activated through keyboard shortcuts rather than using the mouse or touch pad. You could learn a few of these, and use the arrow and tab keys, and significantly reduce your mouse use (type 'Keyboard Shortcuts' into your help menu for advice on this).



Circle your elbows.



Bend both wrists down while keeping a fist.



Extend hand backwards, pushing gently on palm.

### Exercise on the move

BT Business has developed a range of simple exercises to help you stay fit while working on the move.

Take time to exercise: gentle stretching can relax and strengthen muscles.

## Feeling picky?

### Choosing equipment that will help you work comfortably

Using the right kit matters as much as using your equipment, the right way. Get it sorted first time round with the following suggestions.

#### Laptop

When choosing a laptop you should think about:

- Size. Smaller laptops tend to be lighter, but a reduced sized keyboard can be more awkward to use. It is always possible to attach an external keyboard to the laptop, and very thin and light keyboards are available that can be easily carried in your laptop bag.
- Screen size. The amount of information that can be displayed will depend on the size of the screen and the font size. You should consider what font size you prefer, and how much information you need to display on the screen at once.
- The screen surface. You should consider where you will view the screen and for what purpose. High gloss screens (often provided on 'home entertainment' or 'media' laptops) can cause problems with reflections; if you are often working in environments where it is difficult to control the lighting (e.g. on a train), this may make the screen more difficult to read.
- Weight. Most modern laptops are sufficiently light not to present problems for most people carrying them but extra light equipment is available for those who need it.
- How you will transport it. Shoulder bags can place an uneven load on the body, and mean you twist your back. Backpacks (when both shoulder straps are worn) allow the load to be held close to the body and evenly distributed, placing less strain on the body. Wheeled bags are available, but if you often encounter stairs, these may be less suitable, as the bag will have to be carried, and the bag itself can be quite heavy.

**Vanessa Phillips manages an online transcription service, with 250 staff working remotely around the world. She regularly travels with her laptop and BT Office Anywhere. She adopts the following working practices to help avoid any computer related health concerns:**

- Takes regular breaks, and makes sure these are away from the laptop.

- If she has to place her laptop on her knee (e.g. on the train), she places it on a magazine or files, to raise it to an appropriate height.
- To reduce stress and distractions, she turns off her email package, and only checks it once an hour, at a time that is convenient for her.

## Hand held device

When choosing a hand held device you should think about:

- Its size and weight, so that it is comfortable to hold when using the keyboard, and is easy to transport.
- The size of the screen; consider what you are likely to need to read on it, and what size of font you find comfortable to read; this will help you decide what size of screen you might need.
- Screen colour options; it is easier to read a monochrome screen than a colour one in sunlight. This could be a consideration if you work outside a lot. You may be able to change the software to make viewing the screen easier, as with BlackBerry or BT Office Anywhere devices.
- The way of navigating the software; a scroll wheel (for moving up and down a page) may help if you read long documents.
- The size of the stylus, so that it is easy to hold in your hand.
- The size and layout of buttons, to make sure they are suitable for the size of your hand.
- The force required to activate the buttons; buttons that require noticeable force to active may contribute to discomfort.
- How easy it is to use (the logic of the menus and icons), and how similar it is to what you are familiar with.
- The features it offers and whether these are helpful to you; don't select overly complex equipment with features that you won't need or use.

**Jason Bedford is the IT and Support Services Manager at BMH Construction Company, where many staff work remotely and on-site. He has implemented the following to help with mobile working:**

- During non-productive time (e.g. travelling) he uses his BT Office Anywhere to scan and delete irrelevant emails, meaning that time is used more efficiently when returning to the office.

- The company provides a smart phone with a tiltable screen, so that it can be adjusted to suit the user and comfortably viewed in a range of lighting environments.
- The company provides an external Bluetooth keyboard and devices with a larger screen to some more intensive users, so that they can more comfortably input information (although they are also provided with a laptop for most data tasks).

## Being mobile, with your mobile tools

Lifting and carrying mobile equipment can place a strain on the body. To reduce this:

- Use a double strapped backpack or trolley bag rather than shoulder bag for laptops.
- Choose long battery life to avoid carriage of extra batteries and cables; you can charge phones and laptops on some trains.
- Reduce the amount of documents you carry (store them electronically or post/email them in advance).
- Think about the weight of the equipment when selecting it.
- Consider using a case for your phone or PDA to prevent the screen being scratched and becoming more difficult to read.
- If you're sitting in the driver seat of a car don't lift your laptop from the passenger or rear foot well; you should get out and lift it to avoid strain on your back.

**Dave Harman works as a Public Affairs Consultant; he is mainly office based, but does visit other offices and work while travelling or at home. He uses a BlackBerry when away from his computer (e.g. when travelling to/from work) to read and manage his emails, and occasionally to undertake web based research, and he uses a laptop at home or in other offices. At 6'5" tall he often has to adapt his working environments and practices to suit his size:**

- He finds the BlackBerry buttons too small for his large hands and therefore avoids using it for long periods or composing messages on it. However, he has no problems navigating using the click-wheel on the side of the BlackBerry.
- He has taken the time to learn the shortcuts and the way the BlackBerry system is structured, so that he can use it as efficiently as possible.
- When using the laptop he takes regular breaks (every 30-40 minutes), and gets up and walks away from the computer. Wherever he can he uses the main computer.
- When carrying the laptop he uses a shoulder bag, but always balances this with a second briefcase of papers on the other side of his body.
- When working in hotel rooms he uses a cushion or blanket to support his back.

## Staying safe

Mobile equipment can be a target for theft. Ways to reduce the likelihood of this are:

- Don't leave equipment visible in your car (even if you are in it).
- Assess your environment before using equipment, and don't use it if you don't feel comfortable doing so.
- Use non-branded bags or carry cases so it is less obvious.
- Use a backpack rather than a shoulder bag if carrying a laptop – so it is better secured to your body.

## Adjust & Relax

### Summary

Flexible and mobile working can bring great benefits to our work and personal lives, but to gain these benefits it's important that you are working comfortably. It's always worth taking some time to adjust the equipment and work area to suit you.

So, what's the top tip? Let's keep it simple: adjust and relax. Making adjustments and taking regular breaks are the most important things you can do to help yourself work comfortably when using mobile devices.

Whatever the future holds, following the good practice set out here by BT Business should allow you to use the technology in a comfortable and safe manner.

For more information, please visit [www.bt.com/getfitformobileworking](http://www.bt.com/getfitformobileworking) for in-depth advice.