

# Understanding and improving your posture

Multiple  
Sclerosis  
Trust

MS



Helen Conyers  
Simon Webster

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### Acknowledgments

Thank you to my colleagues at the Dorset MS Service and to my family for their help and support with the making of this resource.

## Who will find these pages helpful?

These pages have mainly been written for people with MS but may also be useful reading for friends, family and health professionals.

### Poor posture is a common problem

Most people have to work at keeping a good posture whether they have MS or not. People with MS often find that keeping a good posture can be more challenging due to, for example, weakness, pain and fatigue. Poor posture can develop gradually, often without you noticing, until it interferes with every day tasks or causes pain.

Simple changes in posture can be beneficial and these can be incorporated into everyday activities.

These pages set out to explain what posture is all about, why good posture is so important and to suggest some practical steps to improve your posture in everyday situations. It looks at posture in standing, sitting and lying and examines the relationship of the postural muscles - the deep muscles in your stomach and back - with arm function and balance.

The pages are intended to complement information given to you by health professionals and act as a reminder of advice you may have been given, possibly explaining things in a bit more detail. It is not intended to replace the thorough assessment of a health professional and it is recommended that you seek the advice of a therapist if you have specific concerns.

Postural changes are best done gradually and practised little and often. It is not always that easy to know if you are doing it correctly, so if any of the suggestions in these pages make your symptoms worse, you should stop and consult a therapist.

If you spend a lot of your day in a seated position you may also find the MS Trust book *Are you sitting comfortably...?* useful.

## What is posture?

Posture is simply the position our bodies adopt in response to the effects of gravity. It is the way we hold ourselves, in sitting, standing or even lying down.

No single posture allows us to carry out everything we want to do and we adopt many different postures in order to do different tasks.

‘Good’ posture allows us to move in the way we want, causing our bodies the least amount of strain and damage.

## Maintaining good posture... why bother?

If we sit, stand or lie in a poor posture for any length of time, it puts stress on the muscles, joints and ligaments. This can cause pain and damage, for example back, neck and shoulder ache.

If you fall asleep in a chair and your head is unsupported, when you wake, your neck may feel sore. That is because the muscles and joints have been under strain and they are complaining. The same thing happens if you sit in a poor posture, for example in front of the computer, TV or at the wheel of a car, or walk in a stooped posture.

Good posture is particularly important if you cannot move or change your position easily by yourself, or if you experience fatigue or muscle weakness. A good posture uses less energy - whether this is maintained by your muscles or by sitting in a supportive chair.

Your postural muscles (the muscles that should hold you in a good posture) work more efficiently if they are correctly aligned which means they can allow you to move more freely.

### Try this...

In a sitting position, try slumping forward then lifting your arm above your head. Now try sitting or standing up straight and lifting your arm (you can hold on with your other hand if you need to). Which is easier?

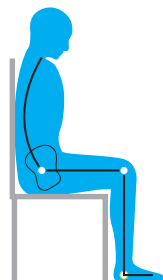
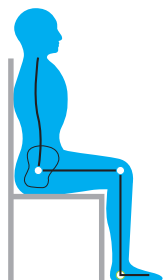
You should find it is easier to lift your arm if you are more upright. This is because your body is being supported by its postural muscles and your shoulder blade is in a better position, which allows you to use your arm more freely.

## What is good and bad posture?

The spine is designed in an S shape. It is strongest and works best in this neutral position.

### When sitting

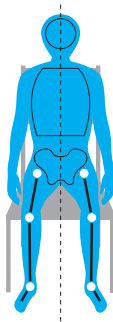
DO		DON'T	
Keep the chin tucked in	✓	Poke or jut chin forward	✗
Keep the shoulders relaxed, down and back	✓	Hunch shoulders	✗
Sit with a curve in your low back (see picture) as this allows the pelvis to sit directly under the points of your shoulders so you sit on the bony points of your bottom.	✓	Sit with your spine in a 'C' shape (this puts your back under strain)	✗
	✓		✗
Sit with your hips, knees and ankles at right angles, thighs level with knees.	✓	Sit with your knees higher than your hips (spine becomes 'C' shaped, knees can easily fall to one side leading to a twisted pelvis). Sit with your knees lower than your hips (bottom slips forward on the seat and knees knock together)	✗



# What is good and bad posture?

## When sitting

DO		DON'T	
Keep the head in midline, on top of and in line with the shoulders	✓	Hold your head forward of the shoulders or to one side	✗
Sit with your weight equal on both sides/cheeks of your bottom, well back in seat and feet flat on floor.	✓	Sit with your weight on one side of your bottom (eg cross your legs) as it puts strain on your back	✗



None of us can maintain this correct upright posture *unsupported* for long periods of time, so it is important that the furniture you are sitting on supports your spinal curves, be that at your desk, in your car or on the sofa at home. As you are reading this, sit well back in the seat, feet flat on the floor.

# What is good and bad posture?

## When standing

DO		DON'T	
Keep the head in midline, on top of and in line with the shoulders	✓	Hold your head forward of the shoulders or to one side	✗
Keep the chin tucked in	✓	Poke or jut chin forward	✗
Keep the shoulders relaxed, down and back	✓	Hunch shoulders	✗
Keep your bottom tucked in	✓	Stick your bottom out	✗
Keep your knees very slightly bent	✓	Lock knees back straight	✗
Keep your feet slightly apart, in line with shoulders, and weight divided equally between them.	✓	Stand with your weight on one leg more than the other (which can cause the spine to curve sideways)	✗



## What is good and bad posture?

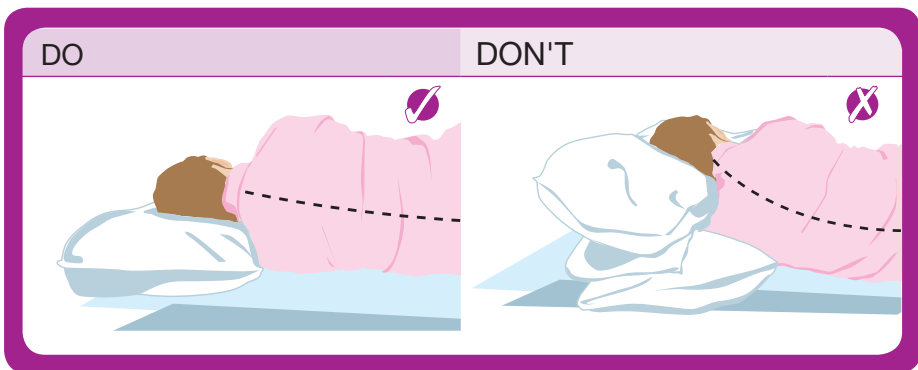
### When lying

It is also important to think about your posture when you are lying down, resting or sleeping.

As when you are sitting and standing, you are aiming to keep the 'spine in line' when lying down. The role of the mattress and pillows is to help support the natural curves in your spine.

- When lying on your back, try and lie symmetrically rather than with a twisted pelvis or with your legs to one side. If your legs don't naturally stay straight when you are on your back, due to spasms and tend to twist to one side, try pillow(s) under your knees to keep them in line with your spine.
- Avoid too many pillows under your head when lying on your back or side, as this can push your head up straining muscles and joints in your neck.

Ideally your pillow should only be under your head, not under the shoulder as well. The pillow should fill the gap between your head and shoulder, keeping your head in line with your spine. This creates the least amount of strain.

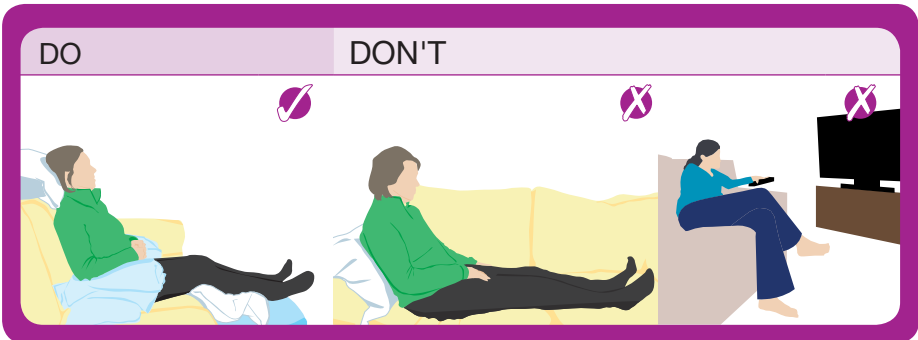


## What is good and bad posture?

### When lying

- Avoid lying on your front as it is impossible to keep your 'spine in line' in this position and may well cause neck pain as your head is permanently turned to one side.
- Also be careful if lying on the sofa as this potentially could put your spine under quite a lot of strain and hence cause pain after a while if you are not supported in this position.

If you want to sit with your feet up, try and support yourself as much as possible with your 'spine in line' to keep it in a good posture.



Whatever position you are in, it is always wise to change your position regularly to minimise any problems from being in one position for too long.

## What is your posture like?

Now you know what an ideal posture looks like and some of the problems that can occur...

Have a look in the mirror to see how you sit and stand.

### Try this...

To improve the way you sit and stand, imagine a helium balloon with a string which is attached to the back of your head. Imagining this should help you lengthen your neck, keeping your chin gently tucked in, your chest more open and your shoulders relaxed down and back.

Initially when you try and sit or stand with a better posture it will feel weird as you aren't used to it. You will probably find it difficult to hold a good posture for very long as the postural muscles have become weakened and get tired quickly. This is normal but with practice - little and often - it will become easier until it becomes more automatic.

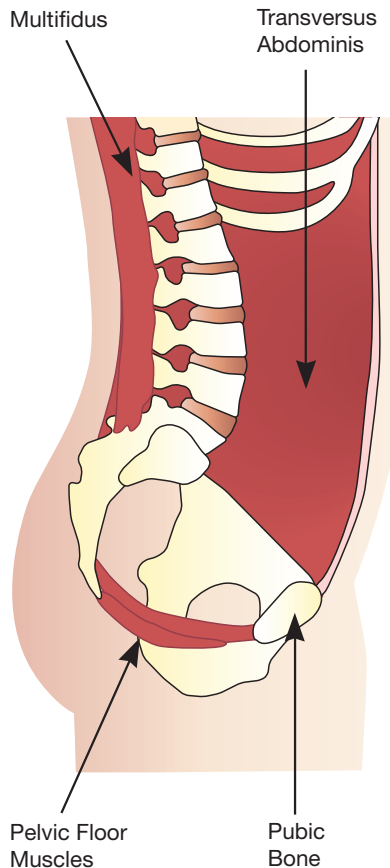
The first step to better posture is awareness that it needs improving.

## How do postural muscles help your posture?

- Postural or core stability muscles are the deep muscles in your abdomen, pelvis and back.
- They act as a corset or scaffolding holding you together rather than moving your trunk.
- It is important to have good postural muscles to help maintain a good posture.
- In the abdomen there are four layers of muscles.
- The deepest layer, called transversus abdominis, is a band across your low stomach that holds the trunk together.
- The top layers help to bend and twist the trunk.

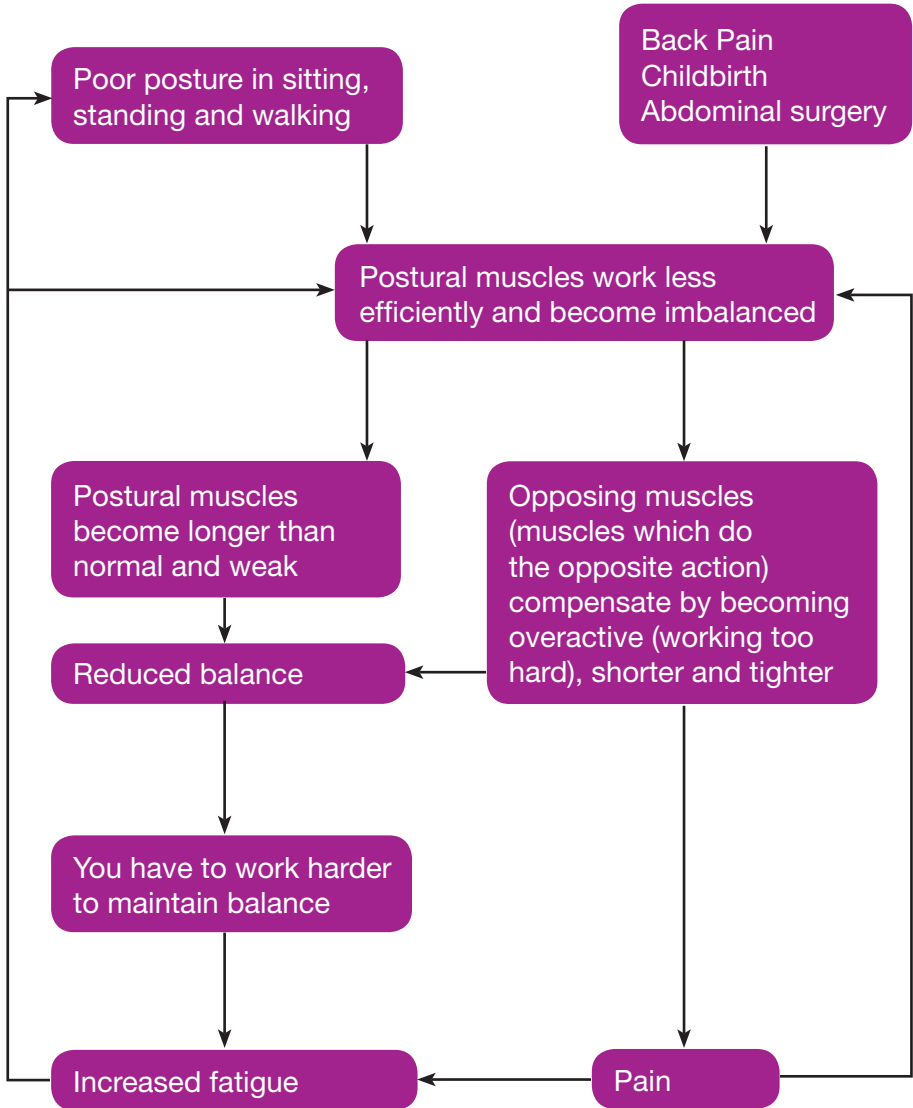
The postural muscles only work properly if the body is in a good posture or correct alignment. If not, a vicious cycle can develop.

### Core stability muscles



# How do postural muscles help your posture?

## Vicious Cycle

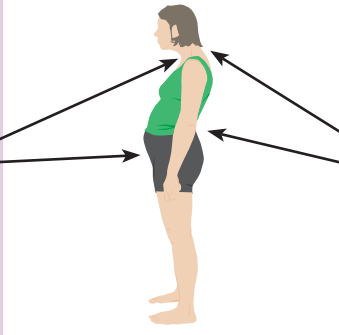


## How do postural muscles help your posture?

Having weak postural muscles is like having a house with unstable foundations. You need strong foundations to stabilise your body

### Muscle imbalance

Long weak postural muscles in abdomen and front of neck



Short, tight low back muscles and muscles back of neck

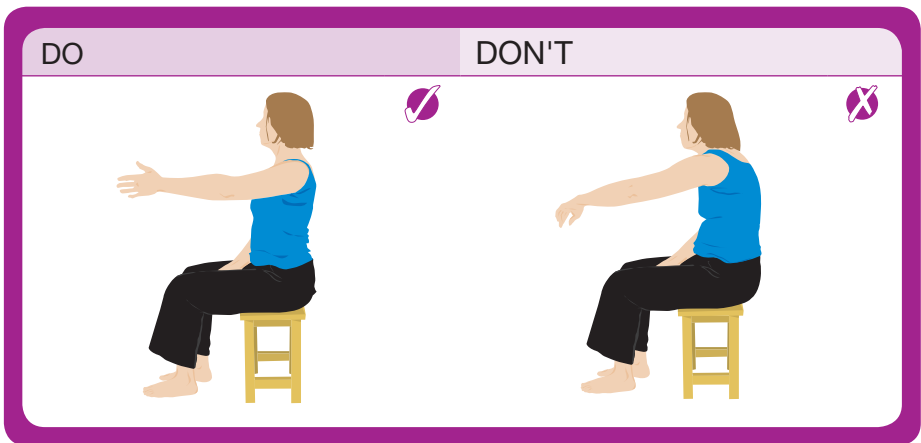
This can result in pain, fatigue and affect balance

## How do postural muscles help your posture?

### Muscles that hold /stabilise the arm onto the trunk

Think of your arm as a crane and the shoulder blade, the base of the crane. Just as it is important for a crane to be on a stable base for it to work properly, it is important for the muscles around the shoulder blade to be strong to help anchor the arm to the trunk/ chest wall for it to work efficiently.

If these muscles are weak, it is often difficult for you to lift your arm up fully. The muscles on top of your shoulder tend to over work causing hunching when you raise the arm and, as they aren't designed to stabilise your shoulder, they get tired quickly and ache. This can make it harder to use your arm.



### Try this...

Sitting up straight, gently squeeze your shoulder blade down and back before raising your arm or reaching forward. You should find it is easier to raise your arm like this.

For more on core stability exercise, see [www.mstrust.org.uk/exercises](http://www.mstrust.org.uk/exercises)

## Tips for maintaining good posture

Think 'posture' every time you stand up or sit down.

### Sitting

When you are sitting, you want a seat that will support your natural curves, helping keep your back in a neutral position so it is under the least amount of stress.

### Sitting at a desk

Make sure your desk is set up to help you maintain good posture and remain comfortable.

- Adjust your chair so that your lower back is properly supported.
- If there is a gap between your lower back and the chair, place a small rolled up towel or small cushion in the small of your back to support this area.
- Your knees should be level with your hips and your feet should be flat on the floor or on a footrest.
- If you use a keyboard, your wrists and forearms should be straight and level with the floor.
- The top of the computer screen should be roughly at eye level.
- Keep the mouse close so you don't need to stretch to use it.
- Keep frequently used objects, such as the telephone, within easy reach.
- Have frequent breaks from your desk.

If you are struggling with poor seating at work which is causing fatigue or pain, firstly speak to your line manager about having a work station assessment or contact your occupational health department.

It may also be possible to be assessed by a scheme called *Access to work*. They can work with employers to help make adaptations to work places to help keep people in work.

## Tips for maintaining good posture

### Sitting on the sofa or easy chair

- Often sofas are too deep and/or too low, encouraging a slouched posture. Try raising the seat height with another cushion or high-density foam under the sofa cushion, or put blocks under the base so that your knees are the same height as your hips when you are sitting.
- The depth of a seat can be reduced by putting a large cushion or pillow behind your back.
- If the seat is too high, a cushion under your feet can bring your knees up so there is not pressure on the backs of your knees.
- If the arm rests are too low or there aren't any, this can also encourage you to slump. Try pillows or cushions under your arms. This is also good if you have any pain in your neck or arm as it takes the weight of the arm off the neck.
- When reading, try propping the book up on a cushion so the book is more upright. This helps you keep your head up more rather than bending your neck looking down. There are also book stands available to buy which can do the same job.
- If you are putting your feet up on a stool or on the sofa, be careful with your posture.
- To help keep your 'spine in line' and maintain its natural curves, put a small cushion in your low back to help maintain your lumbar curve (curve in your low back).
- Cushions under the knees help support them in a slightly flexed position and take the strain of tight leg muscles off the back.



## Tips for maintaining good posture

- Don't sit for too long sitting with your feet up as it is a naturally flexed position which will put a strain on your back and neck. Make sure you change your position regularly.

### Try this...

When watching television, when the adverts come on, sit up away from the back rest and try practising sitting in a good posture. With regular practice you will find that you can hold this posture until the next ad break.

### Sitting in the car

- Check the position of your seat before starting to travel.
- Adjust the seat base far enough forward to be able to depress the pedals comfortably.
- Move the seat further forward if your legs tend to 'pivot' on the seat edge, lifting your bottom out of the seat when you use the pedals.
- If the seat has tilt adjustment, give yourself maximum support under the thighs without affecting pedal operation.
- Make sure the back rest is adjusted so your whole back is supported by the seat.
- Your arms should be slightly bent in the '10 to 2' position
- Your head should be in contact with the head rest when you are driving. (The thickest part of the head restraint should be level with centre of the back of your skull)
- If you are hunching over the wheel, consider whether you need to adjust the height of the steering wheel.
- When you are in the best position you can get, alter the mirrors so that if you slouch it will prompt you to sit correctly again.
- Break your journey to rest and stretch on longer journeys.

## Tips for maintaining good posture

### Standing

- Try and stand with equal weight on both legs rather than on one leg or in a stooped position.
- If you find it hard to stand for any length of time and you notice that you are starting to slouch or sag, consider whether you could pace your activities (alternate a standing activity with a sitting activity) or use a stool to perch on to do the task, eg preparing vegetables at the sink or cooking.

Perching stools are often available from social services. If you feel you may need one, discuss with your nurse or therapist

### Lying

Low back pain, leg spasms or leg pain can all be aggravated by the way you lie.

- If your pelvis is twisted (because your legs rest to one side when lying on your back) or the weight of your leg pulls on it when lying on your side, putting a pillow between your legs or under your knees can help.
- If you have neck pain or arm weakness, putting a pillow under your arm can help as this takes the weight of the arm off the neck.



## MS symptoms which can cause poor posture and some tips to help

There are a number of MS symptoms that can make it harder to maintain a good posture. These can come on gradually without you noticing.

### Weakness

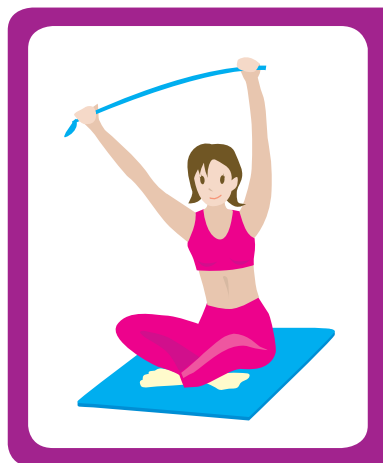
If you have any weakness or imbalance in your muscles, especially the core or postural muscles in your back and stomach, it will be harder to keep your back and pelvis in a normal position or alignment and so harder to keep a good posture.

This can mean that you either have too big a curve in the low back so that you lean backwards, or too little (slumped back) which makes you slouch. These problems can cause neck and back strain. Strengthening these muscles will help.

There are exercises for posture in *Exercise for people with MS* on the MS Trust website.

Pilates, yoga and tai chi can also help with this or ask your nurse or GP to be referred to a physiotherapist for assessment.

If you slouch or stoop, your head also tends to jut forward, rather than sitting in line with your shoulders. The whole weight of your head (about 7kg or the weight of three bags of sugar) will be hanging on these small neck and shoulder muscles - no wonder they start complaining!



## MS symptoms which can cause poor posture and some tips to help

Having furniture which supports your back in a good posture will help.

If you have weakness in your legs, you may find standing for a while tricky and start to slouch. Try to alternate standing with perching or sitting for some tasks to give your legs a rest.

If you find you are walking with a limp or dragging your feet after a while, try and pace yourself. Rest regularly to allow your muscles to recover and consider using a walking aid for longer distances so you are walking as 'normally' as you can.

### Fatigue

Fatigue can also have an impact on your posture. The natural tendency is for your body to sag and slouch with the effects of gravity when you are fatigued.

Whether your fatigue is caused directly by MS (primary fatigue) or by secondary factors such as lack of sleep, stress, low mood, poor fitness or lack of exercise, inadequate diet or side effects from medication, the key to managing fatigue is **planning, prioritising and pacing** your activities and using energy effective strategies.

See the MS Trust book *Living with Fatigue* for more information

### Vision

Poor eyesight may cause you to lean forward to see the computer screen or TV, causing your shoulders to hunch and head jut forward.

When at your computer, you may need to adjust the font size so you can see it more readily and take regular breaks to prevent eye strain and fatigue.

## MS symptoms which can cause poor posture and some tips to help

### **Numbness or tingling**

If you have numbness or tingling in your legs, it may cause you to feel a bit unsure of your balance. This may cause you to stoop forward when you are walking to see where you are putting your feet, which can cause neck and back strain. Rather than looking straight down, you may find looking forward, scanning the ground a few metres ahead for obstacles is more helpful. This may also help you keep a bit more upright.

A physiotherapist will be able to assist you in assessing any of these issues in more detail and advising you as to how to help your specific problems.

## In summary

Whether you are at work, at home or out and about, maintaining a good posture is important to reduce the strain on muscles, joints and ligaments.

If you sit, stand or lie in a poor posture for any length of time, it puts stress on the muscles, joints, ligaments and skin and can cause pain and damage to them.

To help improve your posture, awareness is the first step.

Practise sitting and standing in a good posture, little and often, until it becomes more natural and is automatic.

Improving your core stability (the strength of the muscles in your back and abdomen) will also help you maintain a good posture. Pilates, yoga and tai chi and other simple exercises can all help with this.

## Useful links

### MS Trust resources

- **Are you sitting comfortably...?**  
a self-help guide to good posture when sitting  
[www.mstrust.org.uk/posture](http://www.mstrust.org.uk/posture)
- **Exercises for people with MS**  
exercises, core stability exercises and a relaxation session designed for people with MS  
[www.mstrust.org.uk/exercises](http://www.mstrust.org.uk/exercises)
- **Living with fatigue**  
[www.mstrust.org.uk/fatigue](http://www.mstrust.org.uk/fatigue)

### Employment

- **Access to work**  
a scheme that offers advice and support to employers and employees with health or disability issues that affect their ability to work  
<http://tinyurl.com/access-to-work>
- **Health and Safety Executive documents**
  - Working with VDUs - [www.hse.gov.uk/pubns/indg36.pdf](http://www.hse.gov.uk/pubns/indg36.pdf)
  - Upper limb disorders - [www.hse.gov.uk/msd/uld/workers.htm](http://www.hse.gov.uk/msd/uld/workers.htm)
  - Understanding ergonomics at work - [www.hse.gov.uk/pubns/indg90.pdf](http://www.hse.gov.uk/pubns/indg90.pdf)
- **Osmond Ergonomics**  
information about posture at work from a supplier of ergonomic office equipment  
[www.ergoergo.info/login.php](http://www.ergoergo.info/login.php)

### Driving posture

- **University of Edinburgh**  
driving posture and head restraint adjustment  
<http://tinyurl.com/6cuy9zf>

## Useful links

### Yoga and Pilates

- **YogaClass.net**  
information about yoga classes throughout the UK  
[www.yogaClass.net](http://www.yogaClass.net)
- **YogaFinder**  
international directory of yoga resources  
[www.yogafinder.com](http://www.yogafinder.com)
- **UK Pilates Directory**  
Pilates resources around the UK  
[www.pilates.co.uk/Pilates-Directory.htm](http://www.pilates.co.uk/Pilates-Directory.htm)

## Personal check list

You can write your own action plan here of things you plan to do to help improve your posture, eg 'try a pillow between my knees at night' or 'adjust my car seat'

### 'Things to do' list

.....	<input type="checkbox"/>
.....	<input type="checkbox"/>
.....	<input type="checkbox"/>
.....	<input type="checkbox"/>
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