

Exercises

FOR PEOPLE WITH MS



BY LIZ BETTS



Multiple Sclerosis Trust
opening the door to information education and research



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This book has been awarded a Triangle mark by the Centre of Health Information Quality, based on accuracy, clarity and relevance.

Liz Betts
Exercises for People with MS
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Introduction

Multiple sclerosis (MS) is a neurological condition affecting the central nervous system (the brain and spinal cord) which forms the body's communication network. For some people, MS can lead to severe disability, but many people who have MS are able to hold down jobs and live life to the full.

Living with MS can mean that some things that were previously automatic now need concentration to make them happen. In other words, "the auto-pilot is broken". Movement may need planning, so life gets more tiring and fatigue sets in. It then becomes more important to find coping strategies in order to live as normally as possible, even with a faulty "auto-pilot".

This book has been written because of the many people I have met and worked with who have MS. Without exception, they have been keen to do what they can to help themselves. By putting together this programme of exercises, I hope to reach out to others, to show them how to prevent problems before they develop, alleviate some symptoms and improve their general sense of well-being. Nothing in the book is offered as a cure or even a way of halting the progress of MS. It is a keep fit programme for people who happen to have MS.

Some of the exercises will be familiar as there is only a limited number of ways to move the human body. Other "handy hints" are techniques picked up from other physiotherapists or developed by trial and error through working with people with MS.

Wherever you are in your "MS journey", I hope there is something here for you.

**Liz Betts, Chartered Physiotherapist
Haverhill, Suffolk**

Section 1 POSTURE

Posture is simply the position we hold our bodies in, whether sitting, standing or even lying down. If we have "good posture", it will prepare us and allow us to move in the way we want.

If we were asked to define "good" posture we might imagine a ballet dancer, standing erect, body completely aligned, ready to move with the music, or possibly an opera singer, poised and balanced with chest stretched and expanded ready to sing. You can't be a good opera singer with poor posture - if the rest of your body isn't in tune then neither will the voice be! Dancers and singers alike need to position their bodies to allow them to achieve that flow of graceful movement or control of voice to produce beautiful music.

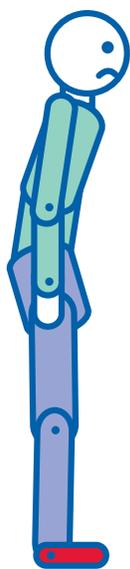
In common with dancers and singers, we have the potential for free flowing movement and this is best achieved when we start from the right position.

- **Try this: sit slumped in a chair and shout "hello"**
- **Then try: the same again but this time sit up straight and allow your chest to expand**

From an upright position it is much easier to shout. You are able to get more air into the lungs to force out the volume of noise and the shout is louder.

Look at someone who is angry and raising their voice. Look at a mother telling off her child. Even if she's looking down at the child, she'll bend from the hips to allow her chest to expand fully!

When you have MS then it can make you feel different - maybe your eyesight has altered or your balance seems a bit less reliable. Even if there is no muscle weakness, MS can change the way you move and behave, making you feel as if you are more likely to fall over. When you're three, it's not unusual to fall over, be picked up, cuddled and all is well. However, when you are adult and you fall, then you feel very self-conscious and it's also likely to hurt more!

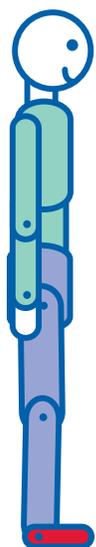


Because of this, people tend to drop their centre of gravity and droop from the chest in an effort to get a bit closer to the floor - it doesn't seem quite so far away!

It's easy for this changed posture to become a habit which then affects the ability to move fluently. The movement becomes stiff and stilted, causing the flowing nature of "normal" movement to be lost. This difficulty is caused mainly by the altered position of the pelvis - which is really important in maintaining and improving the body's stability and its ability to move and function at optimum level.

Look at the cartoon and you'll see that it's also likely to cause back and neck ache and to squash the abdominal contents and lungs, restricting eating and breathing. Apart from anything else, it doesn't look as good!

what to look for if you're standing...

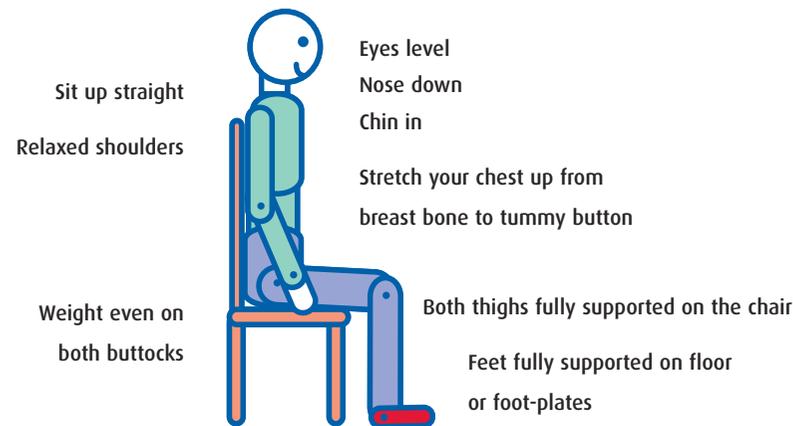


- Eyes level
- Nose down
- Chin tucked in
- Shoulders loose and relaxed
- Chest stretched up
- Bottom tucked in
- Pelvis balanced
- Knees straight but loose not locked back
- Feet slightly apart
- Toes pointing forward

Don't forget the position of your head. Some of us have a tendency to stick our nose in the air when we stand up straight - don't do it! Keep the head level, the eyes fixed on a window frame or picture and the chin tucked in. The "chicken position" makes your neck ache!

Being able to hold a good posture takes time, practice and can only be done slowly. If you can work it into your daily routine, it is much easier and hopefully will become automatic. Take a few seconds to really look at yourself in the mirror in the morning or watch yourself in a shop window as you walk past. It can also be helpful to get someone else to help you check your body alignment.

what to look for if you're sitting...



Wherever you're sitting, remember to adjust your position to suit you. The bottom needs to be well back in the seat allowing the knees to bend at a right angle without pressing into the back of the thighs or calves. Feet should rest on the ground. If you are a bit on the short side then try a book under your feet; telephone directories are perfect! If you are sitting in a wheelchair make sure your feet are in the right place on the foot-plates and that the foot-plates are adjusted correctly.

As with your standing posture, try to incorporate checking your sitting posture into your daily routine. Perhaps when you're watching a TV programme, you could use the time for the theme music or the advert break to check how you are sitting?

You may be reading this and thinking, "Why bother? It's all part of having MS and something you have to put up with." Some of that may be true. But the brain is a marvellous organ and will put us into postures that make us feel less vulnerable and, if not checked, that can cause problems further down the line - especially if you have MS. The way you sit or stand may be causing you to work much harder, making life more difficult.

your pelvis matters!

a typical scenario...

A few years after diagnosis, one leg doesn't seem to be working as well as the other so you lose trust in it and adopt a posture which favours the "stronger" leg. The body weight is transferred towards the "good" side. Then, to further protect the weaker leg, you hitch up the hip of that weaker side, pulling the pelvis up and slightly backwards, and causing the pelvis to tilt away from the horizontal. If unchecked, over a long period of time, the spine also realigns itself to cope with the tilted pelvis and it feels as if one leg is longer than the other - when in fact the problem all stems from the tilting of the pelvis to take the weight of the so-called "bad" side. The pattern of movement is changed and becomes one-sided and in extreme cases even "crab-like". The hip is pulled up and often slightly backwards. The foot may then turn outwards and drag on the floor. This altered posture may also cause back and neck pain.

Although there may be some weakness around the ankles, walking can still be dramatically improved if the alignment of the pelvis is changed.

so, what can you do to improve things?

where do you start?

■ Look

Use a mirror to look at how you stand, perhaps in your underwear so that you can see the bony points of your hips. Check that both bony points are at the same level and pointing forward.

■ Feel

If you have no mirror, stand with your tummy against the kitchen sink [or somewhere similar] to check your hip bones are level and pointing in the right direction.

■ Exercise

In particular do the exercises which will make the pelvis move both forward and back and then from side to side. Look for the 'tick' symbol in section 3. These exercises can be found on pages 20, 21, 35 and 36.



If at first the exercises seem hard, just do a few at a time and persevere; they will help in the long run. The important thing is to start gently and gradually build up what you can do. Half the battle is knowing what the problems are, then gradually try to change things. If your posture has altered over a period of time, then, logically, it will take time to change it again. It may not be possible to reverse all the changes that may have occurred but it is important to remember that there is progress in not allowing things to get any worse. If you stay the same, you're doing OK. However, there are very few people who do not notice some improvement once they start an exercise programme.

The position and alignment of the pelvis is crucial. Get it right and everything else becomes easier - sitting, standing, walking and, of course, exercising.



Section 2 GETTING THE QUESTIONS OUT OF THE WAY BEFORE YOU START

Before we embark on the exercises, let's look at some general questions. First of all...

how do I exercise and cope with the fatigue?

It is important to mention fatigue here, before looking at the exercise programme, as the one is inextricably linked to the other. Fatigue is a very common feature of MS - the overwhelming feeling of exhaustion which seems to be so difficult to explain, let alone to manage, in day to day life.

It can be a difficult subject to deal with among friends and family. "You look so well. Why can't you wash the dishes?" "Why can't you come out to the pub with us?" It is essential to remember that fatigue is an integral part of MS, a real and recognised symptom, not something you should have to apologise for.

The first thing to acknowledge is that it is not a good idea to "work through" fatigue; you may end up feeling worse, often for days afterwards. Fatigue is difficult to come to terms with because it involves changing your routine to accommodate your MS and it can feel as if you are giving in and letting it get the better of you. The other way of looking at it is that you are learning to manage your MS and are undertaking a form of energy conservation.

If you can save energy by changing your routine, be it work or leisure, by learning to recognise when you are feeling weary, then it will make a great deal of difference to your everyday life and you can often keep going for longer in the day.

Sometimes something as simple as sitting down with a cup of tea after lunch and learning to be nice to yourself, can make the difference between being sociable in the evening and having to go to bed early and missing out on family and friends.

Some people need to rest for longer but don't because they think they'll fall asleep and waste the rest of the day - but you could always play safe with an alarm clock or kitchen timer! If you have a tendency to get back or neck ache you might actually be better lying down to allow your joints to rest completely.

Basically you need to find what suits you; there are no hard and fast rules. For some it is a regular rest midday, for others it is frequent sit-downs in between activities - or a combination of both - whatever your own method of giving the body time to "recharge the batteries".

Another way of coping with fatigue is to try and control the temperature. Everyone can feel drained of energy in hot weather, but with MS the effect is often exaggerated, particularly in more humid conditions. The use of fans or cold water sprays, especially when exercising, can be helpful.

how do I fit it all in?

Don't despair because quite a few exercises can be fitted around normal daily activities. For example, some standing exercises can be done at the kitchen sink in the time it takes for the kettle to boil. Some of the sitting exercises can be done while watching the TV or listening to the radio. Tying in exercise with daily routine means that it becomes an integral part of the day, as automatic as cleaning your teeth.

MS doesn't go away. People who break their leg know that if they do their exercises all should be well. Most people with MS don't want to - and don't feel they have time for - half an hour of exercise every day. It would dominate life so much there would be no time or energy left for anything else. However, most can manage to do one or two exercises incorporated into the daily routine. It doesn't then become too much of a drudge, it's more likely to be remembered and less likely to make you feel guilty about not doing anything. Then - if you want to - you could do a fuller range of exercise once or twice a week.



Before you work out your own programme of exercise, there are two things to consider which come into most daily routines: standing and walking.

- **Standing** is a very important activity and it is worth spending a little time each day looking at how we do it. I have already mentioned the importance of correcting our posture in standing but we also need to recognise that for some people it can be an invaluable exercise in its own right. For people who spend most of their time in a wheelchair it is good practice to stand at regular intervals in the day, if at all possible. Even if you don't think you stand very well, any standing is better than no standing at all. It allows you to weight-bear through the legs and feet; it stretches your muscle groups; it allows the chest and abdomen to expand and re-align their contents. I can guarantee that you will breathe deeper and your bladder and bowels should function better!
- **Walking** can also be an important part of our daily routine but we can all get out of the habit of not walking enough or of thinking about how we are walking. It's easy to forget that we are walking every time we get up out of a chair because most of the time we are more concerned about where we are going and what we want to do when we get there. A lot of people with MS have found, though, that if they have a special place where they really concentrate on how they are walking, then it will carry over into "general" walking. A hallway might be best because it gives a decent distance to work on. You may find that you try to think about how you walk whenever you walk through a particular door - some people even put stickers on the door-frame to remind them to concentrate. Are your hips level and your feet pointing forward? Is one leg dragging? If you have difficulty in knowing what to look for, your local physiotherapist should be able to help.

what sort of exercise?

There is no right or wrong exercise, but there are some simple guidelines to help you decide what is right for you. Remember everyone is an individual and you need to find what suits you best - and only you can know the answer to that.

Firstly, if you try an activity and it does not make your symptoms worse, then it is most likely to be fine for you. You have to learn to listen to your own body and to be honest with what it is telling you. Some people have a misguided belief that if you push hard enough and it hurts then it must be doing some good. If you spend more time recovering from an activity than doing it, you may not have the balance quite right!

If you like to play badminton and can enjoy a game without provoking any symptoms, then carry on. But if your symptoms become worse or you take a couple of days to recover then either it is the wrong activity for you or you modify it and play for less time. Or it may be that you could try something that is just as competitive but a little less strenuous!

how do I decide on my programme?

The next section describes a range of exercises which you can adapt to your own needs. They vary from fairly easy to quite difficult and so you will probably find not all of them will be right for you. They have been divided up according to their starting position, which may help you to decide how to fit them in with your daily activities.

In the beginning you might consider enlisting help from a physiotherapist who will be able to give you some tips and pointers.

When you start your programme don't go mad and try to do all the exercises at once, particularly if you haven't done much recently. Pick out a couple that you know you will be able to do, building up gradually. There's no point in setting your target so high that you will not be able to reach it.

If you just want to keep an eye on your posture rather than developing a keep fit routine look for the exercises marked with the 'tick' symbol. These exercises can be found on pages 20, 21, 35 and 36.



From a standing start...

- Pick one exercise to do when standing in the kitchen, maybe waiting for the kettle to boil or before you wash-up.
- Pick one exercise to do when sitting, perhaps at the table before you have your meal or while watching the TV.
- Do both exercises every day at least once - perhaps once in the morning and once in the afternoon. Repeat each exercise 3-5 times.
- Then pick a day in the week and a good time in the day - not when you feel at your lowest! Select 6-8 different exercises and go through them repeating each one 3-5 times.

If you are less mobile...

- If you use a wheelchair most of the time or can only stand for short periods, choose one sitting exercise and perhaps one arm exercise to do daily. Repeat each exercise 3-5 times.
- If you can, try to stand daily.
- Pick out 4-6 exercises. Repeat each exercise 3-5 times, if you can. You can gradually increase the number when you are able.

It may be that you need to have an assistant, friend or relative to help you, so you may need to time your exercises with their being around.

When you have finished, make sure you rest. You may find you can do more repetitions of each exercise but it is sensible to start with a low number and build up gradually. When you want to increase the number of exercises only add 1 or 2 repetitions for at least 3 days before you do anything more. Make sure you check how you feel - especially for signs of increased fatigue - before challenging yourself further.

Finally, when you are exercising, it's important to breathe! A lot of people hold their breath when they exercise and that's not a good idea!

Section 3 THE EXERCISES

starting from a lying down position

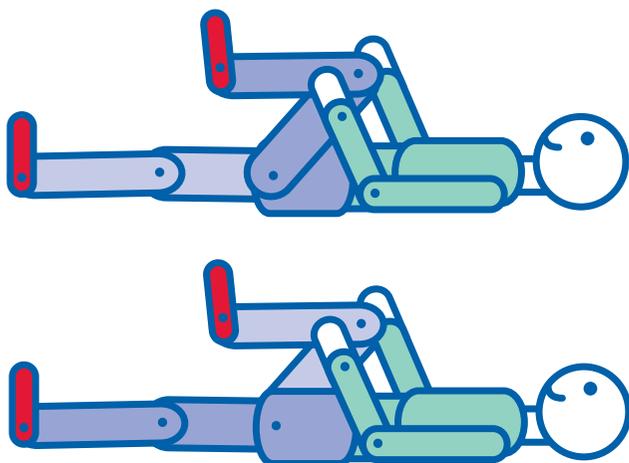
All these exercises can be fitted into a convenient slot in your daily routine eg before you get out of bed, before you go to sleep at night or maybe after a rest.

Exercise 1

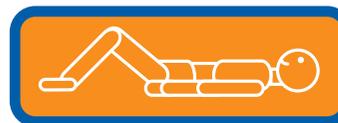


Starting position Lying flat (or if your legs go into spasm - lying with knees bent up and feet flat on floor/bed)

Pull one knee up to chest with both hands, keeping the other leg stretched out. Release, then repeat with the other leg. 3-5 times each leg.

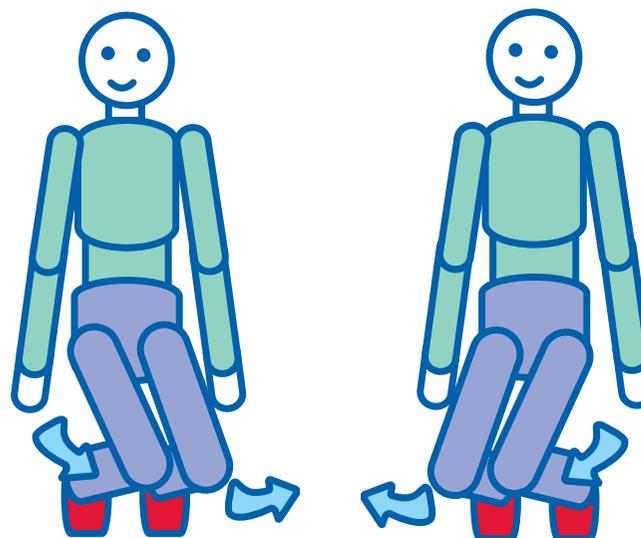


Exercise 2



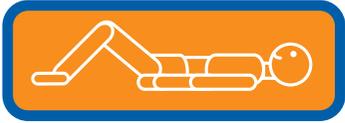
Starting position Lying with knees bent up and feet flat on floor/bed about 12" (30cms) apart

Roll knees over to the left, stretching diagonally across the trunk. Bring them back to the middle, then roll the knees over to the right and back to the middle again. Make sure both shoulders stay in contact with the floor or bed. Repeat 3-5 times each side.



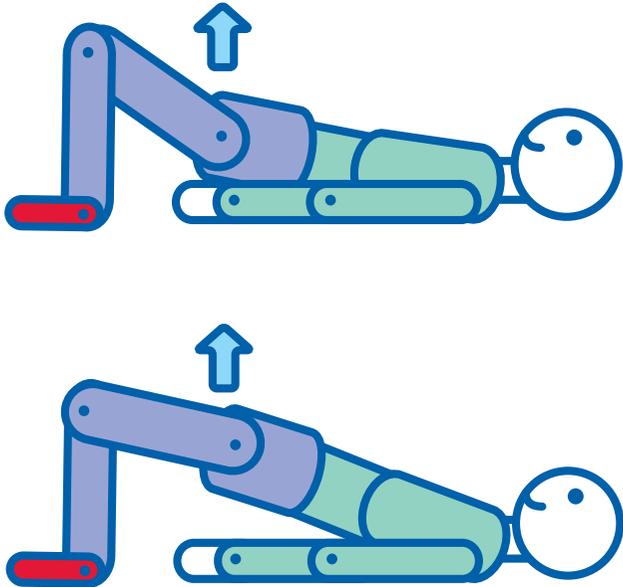
Don't rush and make sure you don't let your knees flop!

Exercise 3



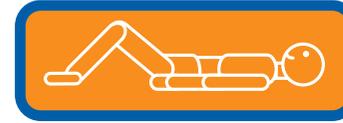
Starting position Lying with knees bent up and feet flat on floor/bed about 12" (30cms) apart

Tighten your buttocks, then raise them off the floor – hold – then let down slowly. Repeat 3-5 times.



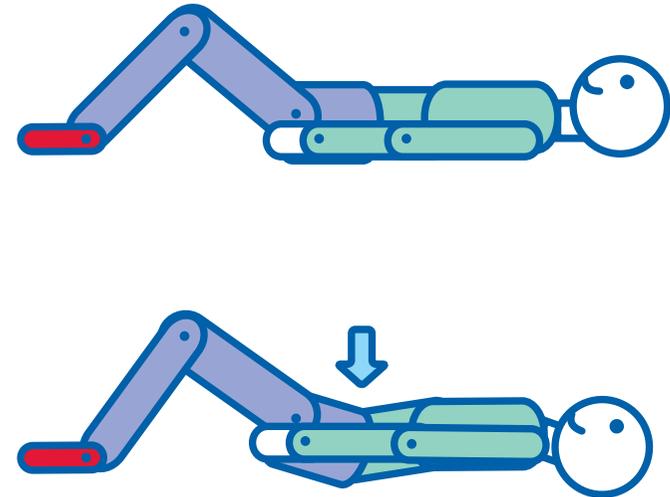
Be sure to raise straight up and down - try not to waver!

Exercise 4: the 'pelvic tilt'

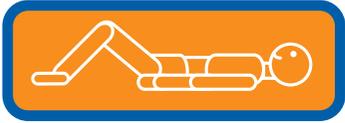


Starting position Lying with knees bent up and feet flat on floor/bed about 12" (30cms) apart

Tighten your tummy so that you tilt your pelvis to flatten your back down onto the bed/ floor then release. Repeat 3-5 times.

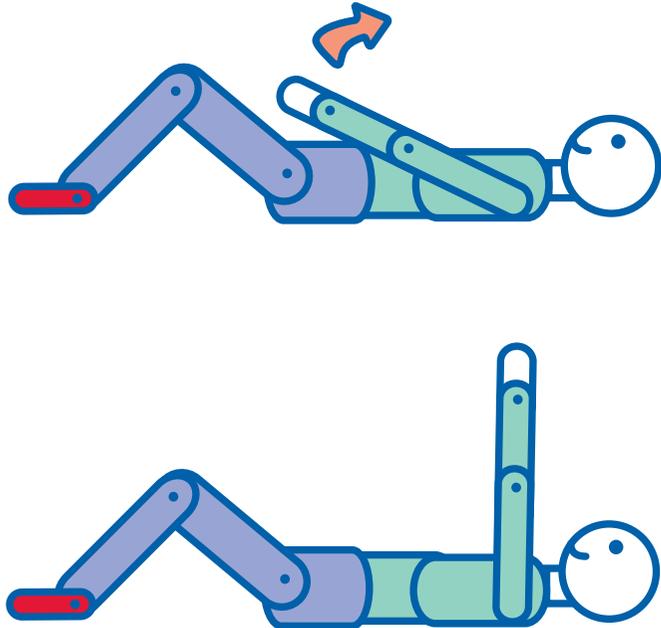


Exercise 5

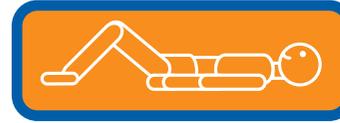


Starting position Lying with knees bent up and feet flat on floor/bed about 12" (30cms) apart

Alternately raise one arm, then the other, keeping the elbow straight and the hand outstretched and lower slowly. Repeat 3-5 times each arm.

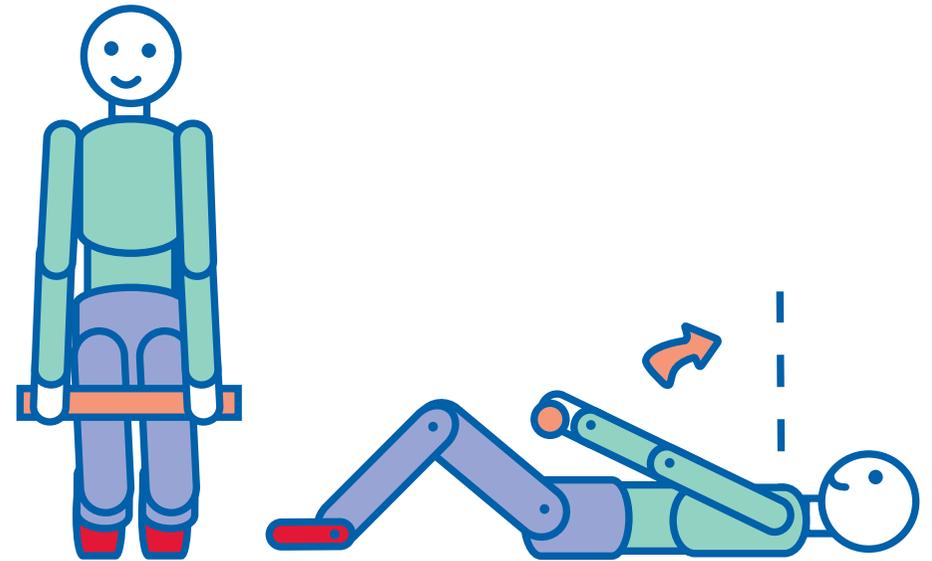


Exercise 6

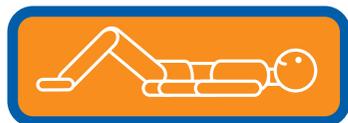


Starting position Lying with knees bent up and feet flat on floor/bed about 12" (30cms) apart

Hold an umbrella, pole, rolling pin or something similar, at hip level. Keeping the elbows straight, raise the umbrella up and over your head if you can, then lower slowly. Repeat 3-5 times.



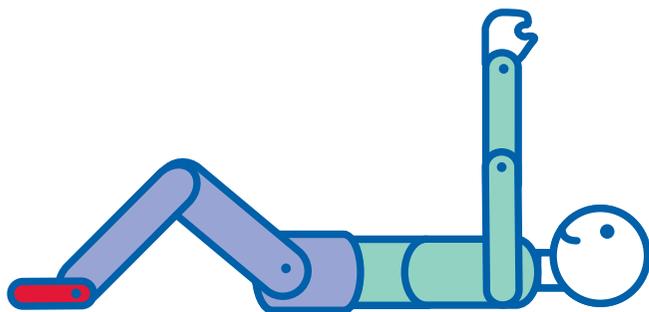
Exercise 7



Starting position Lying with knees bent up and feet flat on floor/bed about 12" (30cms) apart

Hold one arm up straight at shoulder level, with elbow straight. Touch the tip of each finger in turn with the thumb. Lower the arm and repeat on the other side. Repeat 3-5 times each arm.

NB These arm exercises can also be done in sitting position.



starting from a sitting position Exercise 1

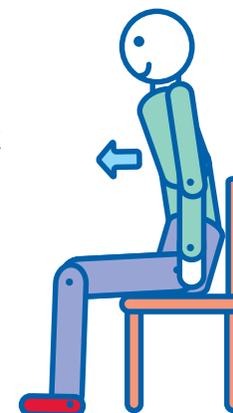
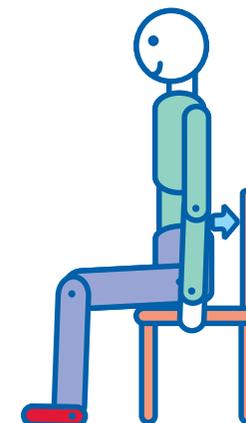


Starting position Sitting on a firm surface eg edge of the bed, on a stool/chair or even the loo!

Sit upright with shoulders relaxed, head level and eyes looking straight ahead. If you are on a chair you need to be sitting clear of the back.

Drop the trunk down from a point on the breastbone whilst letting the pelvis tip down and back as if you are slumping. Then sit up straight, tilting the pelvis slightly forward and bringing the breastbone up and forward, making you stretch your back upright. Your head should remain level with your eyes focused ahead. You should feel that your weight comes forward over the hips. Repeat 3-5 times.

NB This is a very important exercise as it corrects posture and allows fluidity of movement in the trunk which is so often lost when changes of posture occur. It will also encourage deeper breathing and therefore better lung expansion. I advise everyone to do this exercise because it realigns the body to give it its best potential for movement - remember the opera singers mentioned earlier!

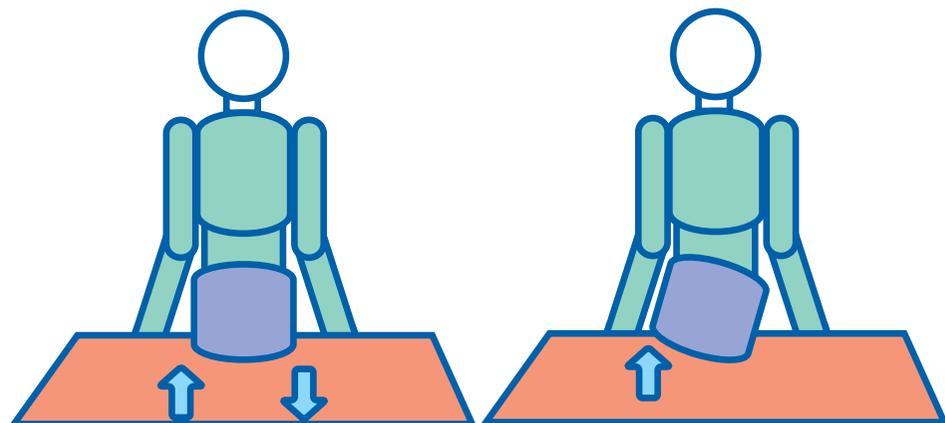


Exercise 2: 'cheek to cheek'



Starting position Sitting on a firm surface eg edge of the bed, on a stool/chair or even the loo!

As you sit you can feel two bony points supporting you. In this exercise transfer your weight from one bony point to the other, raising one cheek of your bottom as you do so but maintaining the trunk in an upright position. This means that on the side that is being raised up, the ribs get closer together. Then go back to the middle and repeat on the other side. Repeat 3-5 times each cheek!

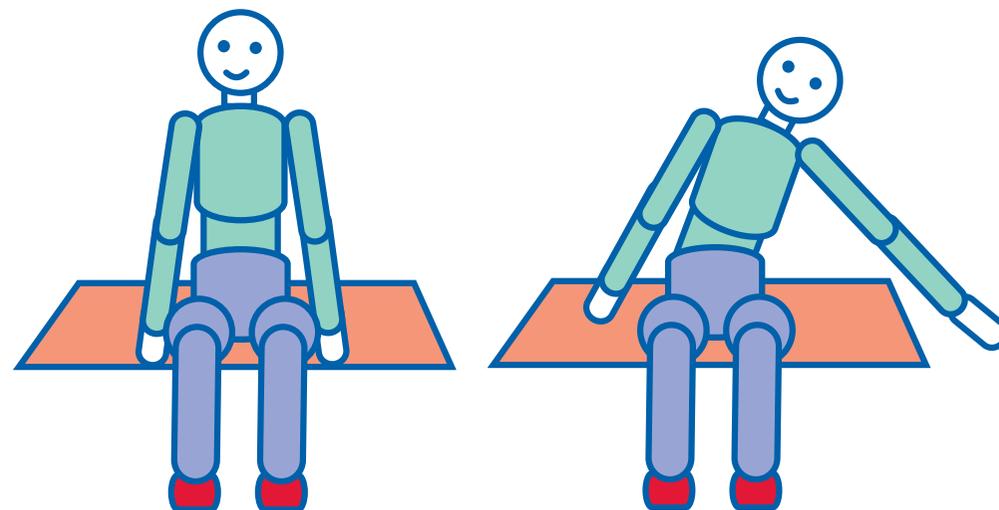


Exercise 3



Starting position Sitting on the edge of the bed or on a settee, with feet on the floor

Slide one hand along the bed whilst stretching and elongating your trunk. Keep facing forward. Come back to the middle and repeat on the other side. Repeat 3-5 times each side.

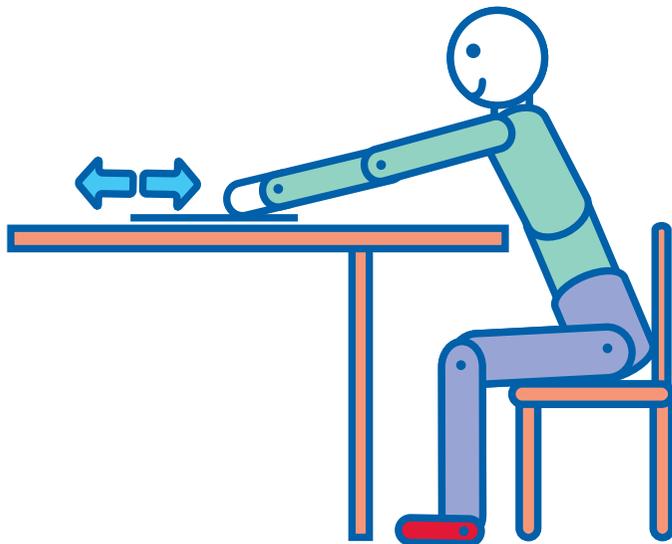


Exercise 4



Starting position Sitting at a table

Put your hands on top of a duster or towel. Using the duster, slide your hands away from your body so that you stretch forward and elongate your trunk. Return to the starting position and repeat 3-5 times.

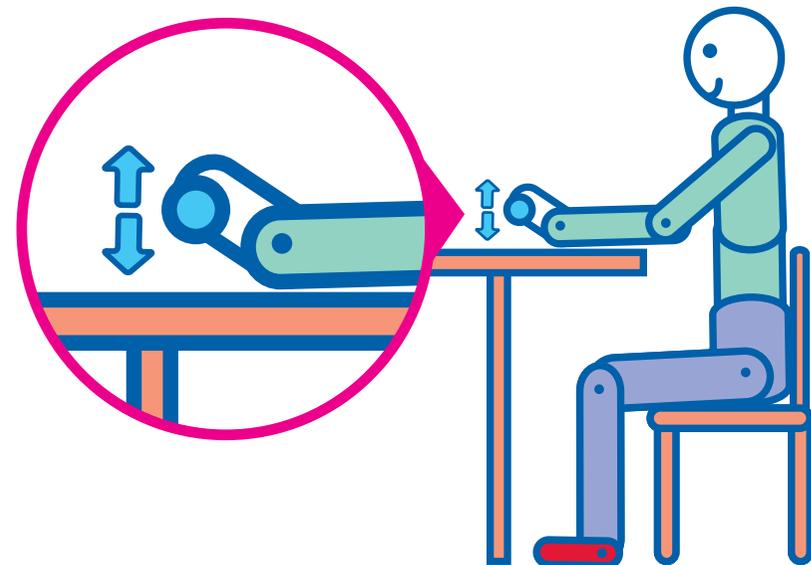


Exercise 5



Starting position Sitting at a table

Holding an umbrella, pole or rolling pin with both hands, rest your forearms on the table, lift the pole by extending the wrists, then lower. Keep your forearms on the table all the time. Repeat 3-5 times.



Exercise 6



Starting position Sitting at a table

Hold the umbrella, pole or rolling pin vertically in one hand, keep the forearm in contact with the table, turn your wrist over to take the pole down to the table then raise it back up again and go over the other way as far as you can. Repeat with the other arm. Repeat 3-5 times each side. Do this exercise slowly so that the pole does not flop!



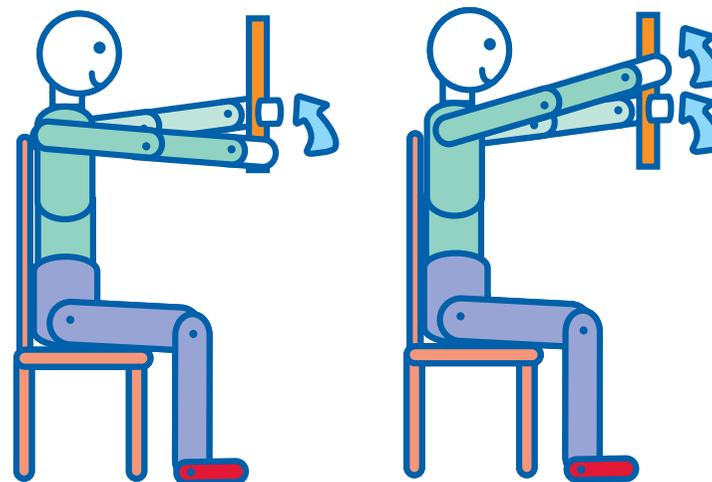
Exercise 7



Starting position Sitting on a firm surface eg edge of the bed, on a stool/chair or even the loo!

Hold a pole/umbrella vertically, one hand above the other. Walk your hands up and down the pole, hand over hand, keeping your arms stretched out away from the body all the time. Repeat 3-5 times.

NB This exercise can also be done with a hoola-hoop.



breathing exercises

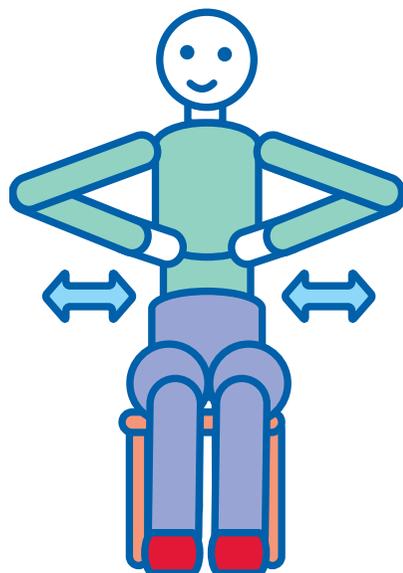
If we are not very active, we tend to breathe less deeply and therefore less efficiently. Breathing exercises also play a part in improving our posture and exercising both the diaphragm and abdominal muscles.

Exercise 8



Starting position Sitting on a firm surface eg edge of the bed, on a stool/chair or even the loo!

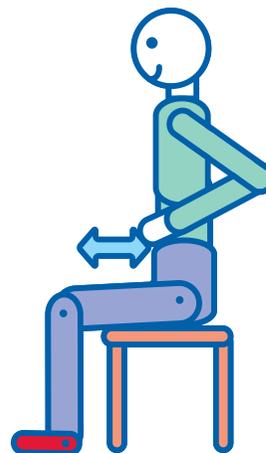
Place your hands low down on the ribcage. Take a deep breath, feel as if you are filling the space under your hands with air, then breathe out. Only repeat this 2-3 times as it may make you feel dizzy if you do more.



Exercise 9



Starting position Sitting on a firm surface eg edge of the bed, on a stool/chair or even the loo!



Place one hand centrally over your tummy just below the ribcage. Breathe in and try to fill up with air under your hand so that you push your tummy out as you breathe in. This exercise can be quite tricky so it may need a bit of practice - but again only repeat it 2-3 times each time you try it as you may feel dizzy.

You can also have fun with breathing exercises - try singing or whistling! It doesn't matter if you're not very good! If nothing else it may make you laugh at your efforts and laughter is proven therapy for us all!

If you can't whistle or sing, then just try a long slow blow. See how long you can take to blow a lung full of air out, counting in your head. If you can get to 20 or 30 you're doing fine!

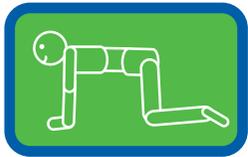
These exercises can be done at any time of day. Many of them could be done while watching TV. It is useful to use something as a trigger to remind you to do some of the exercises. It is also sensible to intersperse the breathing exercises with the others so that you don't get giddy!



starting from a kneeling position

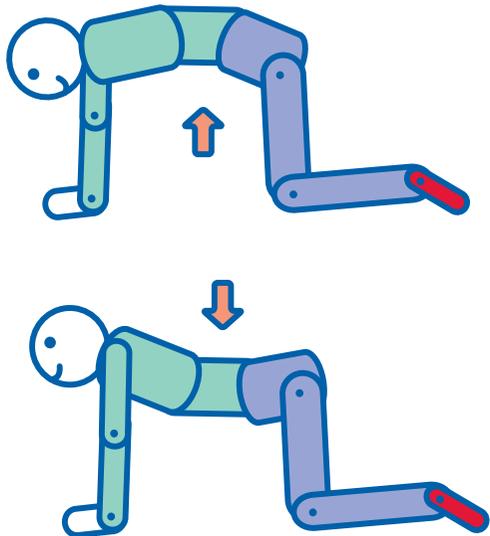
Kneeling exercises can be quite strenuous so make sure you can rest afterwards and that you can get back up off the floor! Unless you're very confident, it is a good idea to do these when someone else is in the house.

Exercise 1



Starting position Kneeling on all fours, weight evenly distributed

Hump and hollow your back. As you hump up, lower your head and as you hollow, lift your head up to look ahead of you. Repeat 3-5 times.

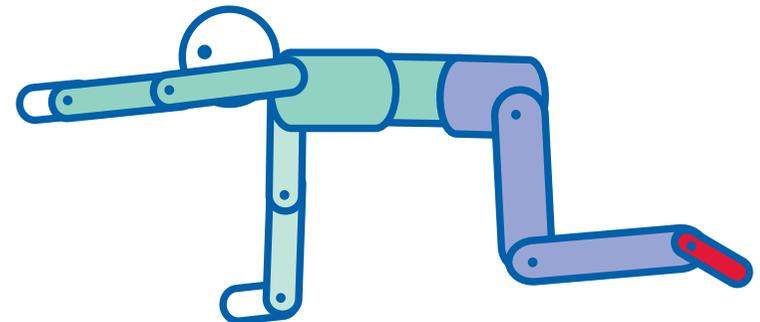


Exercise 2

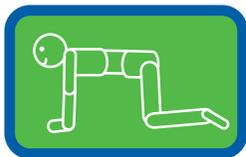


Starting position Kneeling on all fours, weight evenly distributed

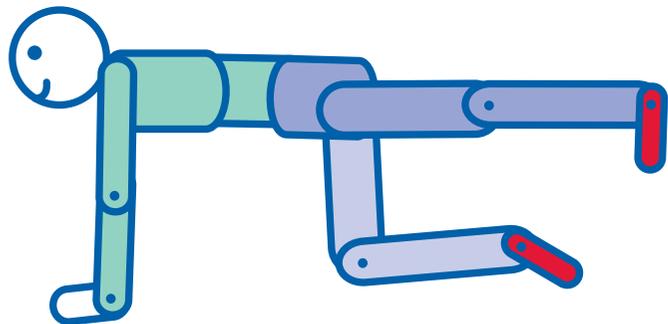
Lift one arm straight out in front of you, hold, then lower and repeat with the other side. Repeat 3-5 times each arm.



Exercise 3



Starting position Kneeling on all fours, weight evenly distributed
Lift one leg straight out behind you, hold then lower slowly.
Repeat on the other side. Repeat 3-5 times each side.

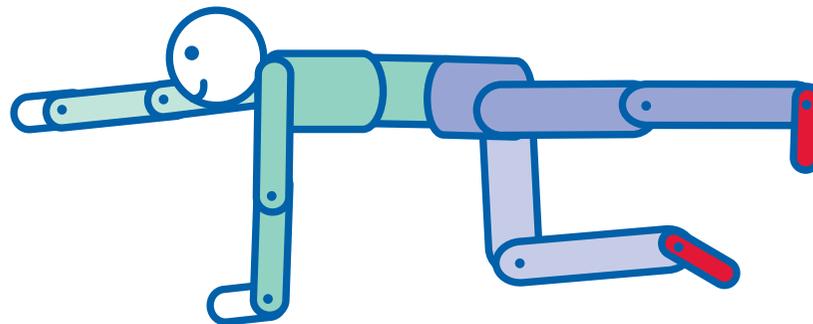


If you cannot lift your leg off the ground, do the exercise by sliding the leg out behind you keeping the toes in contact with the floor.

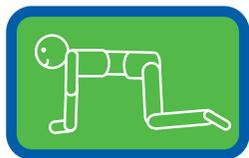
Exercise 4



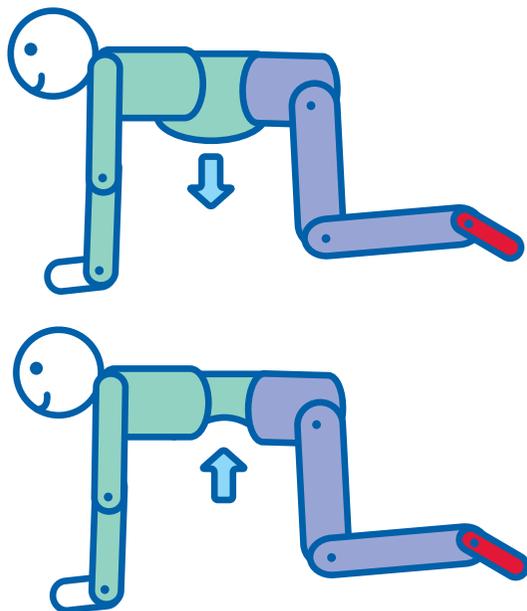
Starting position Kneeling on all fours, weight evenly distributed
Lift one arm and the opposite leg at the same time, stretching both limbs away from your body. Hold then lower slowly. Repeat with the other arm and leg. Repeat 3-5 times.



Exercise 5



Starting position Kneeling on all fours, weight evenly distributed. Keeping the back level and still, let your abdominal muscles go - in other words let it all hang out! Then from a point below your tummy button pull up and in as if your stomach is trying to touch your backbone. Hold for a count of 10, if you can, and then let go. 3-5 times.



You should be able to breathe normally during this exercise as the action is below the waist. If you find it hard then count out loud while doing it - it will stop you from suffocating!

NB This exercise can also be done in a sitting position. Sit well back in the chair to support your back. Let your tummy go, then pull in from below the waist. Hold for a count of 10, if you can, then let go. Don't forget to keep breathing!

starting from a standing position

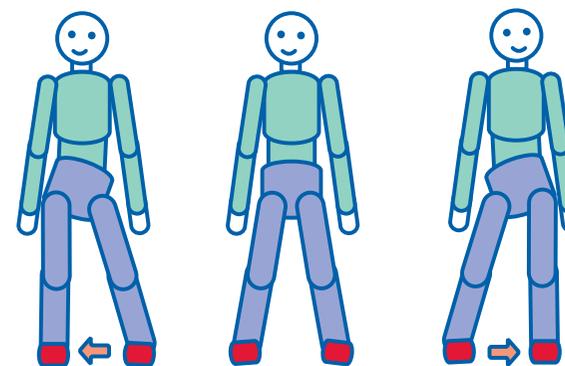
These exercises may be easier to do if you hold onto something eg the kitchen sink, a high-backed chair, worktop or window ledge. Where you choose to do these exercises may help you decide how to fit them into your day.

Exercise 1



Starting position Standing up straight with feet slightly apart, weight evenly placed on both feet

Keeping your shoulders in line with your hips, and feet on the ground, rock your weight from one side to the other, making sure you travel the same distance each way. Repeat 3-5 times.



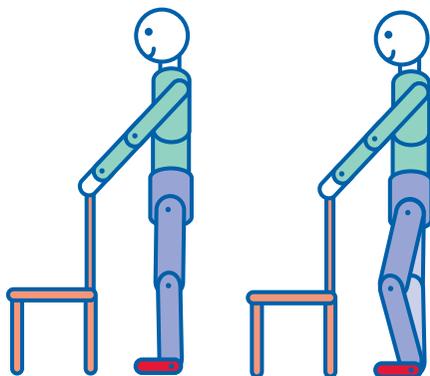
NB You may find this is easier in front of a mirror or in the middle of a door frame to ensure you move evenly from side to side.

Exercise 2



Starting position Standing up straight with feet slightly apart, weight evenly placed on both feet

Let your right knee go, keeping both your heels down on the floor. Straighten slowly, making sure you do not allow the knee to 'snap' back. Come back to the starting position and repeat with the left leg. Repeat 3-5 times each leg.



You will notice that this exercise causes the pelvis to tilt from side to side. Watch your waistband on your clothes tipping from side to side; it will act as an indicator of how well you can do this exercise.

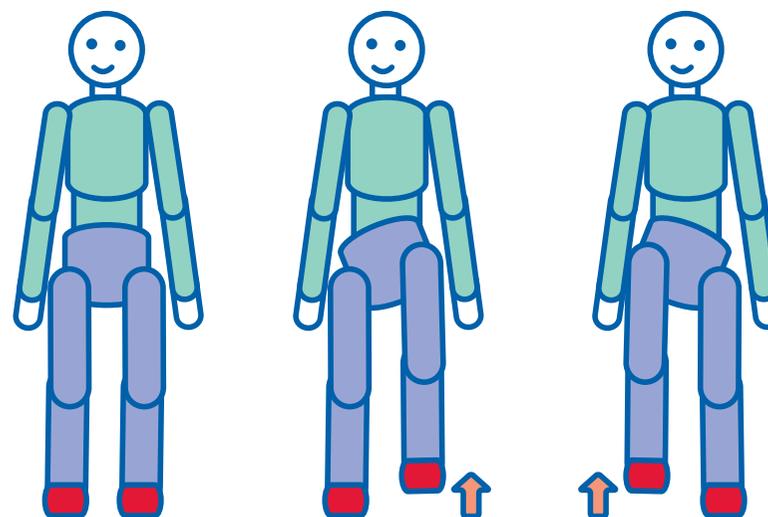
Do not allow your waist to twist! If you think it is, then face the sink and put your tummy flat against it while you do the exercise or watch yourself in a mirror.

Exercise 3

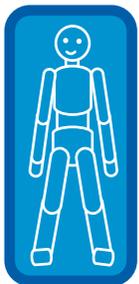


Starting position Standing up straight with feet slightly apart, weight evenly placed on both feet

Hitch your hip up from your waist to shorten your right leg bringing your foot up off the floor. Keep the knee straight all the time. Hold, then lower slowly and repeat on the left leg. Repeat 3-5 times. Make sure you don't stick your bottom out!

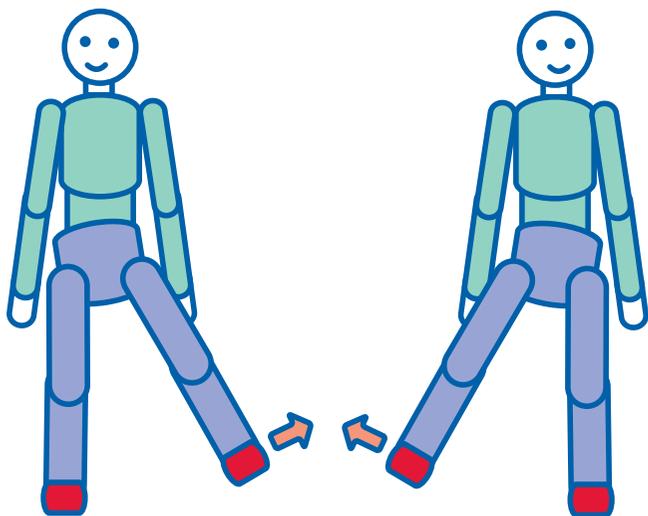


Exercise 4



Starting position Standing up straight with feet slightly apart, weight evenly placed on both feet

Lift the right leg out to the side, keep the knee straight and the toes pointing forwards. Hold and lower slowly. Repeat with the left leg. Repeat 3-5 times.



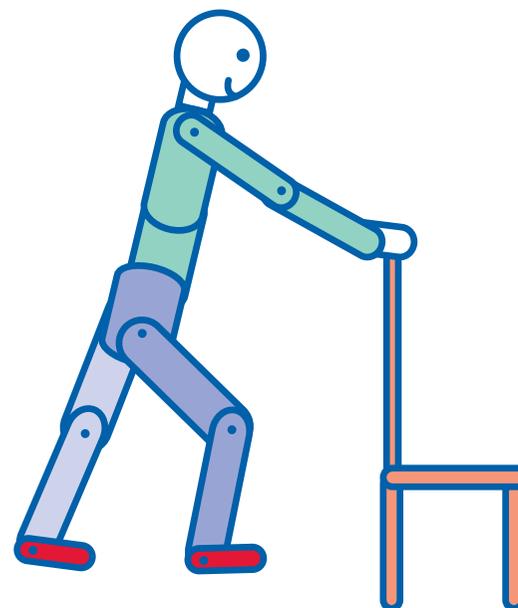
If you cannot lift your leg, then take a step to the side then side-step back again.

Exercise 5



Starting position Stand with one leg in front of the other as you would when taking a stride

Both heels must stay in contact with the ground. Bend the front knee in a lunging style, as if you were fencing. Feel the stretch in the back leg, especially in the calf. Hold for a few seconds then come back to the starting position and repeat on the other side. 3-5 times.



balance exercises

These exercises are included here as they all start from a standing position. Balance is one of the key problems in MS that we need to pay attention to. Many, if not most, people with MS will notice changes in their balance reactions and although we cannot cure the problem we can minimise its effects as far as possible. If we never challenge our balance then, like muscle strength, it will deteriorate.

It is also an interesting exercise to see how good is the balance of your friends and family; it will make you realise that even in so-called 'normal' people there is a great range of ability. You might even find yours is better than some of theirs!

When doing balance exercises, particularly for the first time, it is advisable to have someone else around especially if you're not sure how good you are!

Exercise 6

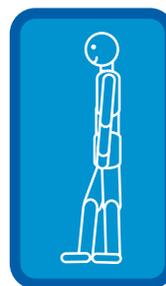


Starting position Stand with your feet as close together as you can. You may want to steady yourself at the kitchen sink or hold the back of a sturdy chair.

When you are steady, let go of your support and hold your balance. Count how many seconds, aiming for 20 if you can.

If you can do it, try with both eyes closed. But be very careful!

Exercise 7



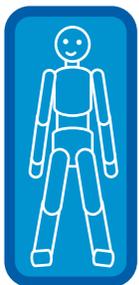
Starting position Place one foot in front of the other, heel to toe. You may want to use a support.

When you are steady, let go of your support and hold your balance. Try to count to 10. Change so that the other foot is in front and repeat.

If you feel very confident, try with both eyes shut. Be careful, this one is quite tricky.

In these exercises you may not quite count to the suggested numbers but remember anything is better than nothing and you can work towards increasing the length of time you can balance.

Exercise 8



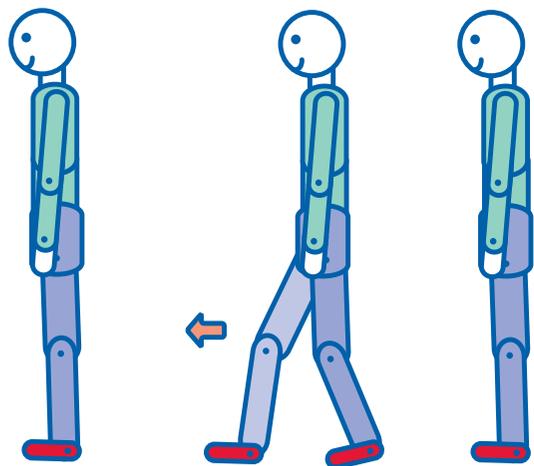
Starting position Standing with your feet slightly apart

Step one foot forward as if crossing a ditch, then step back to where you started, without holding on. Repeat, leading with the other leg. 3-5 times each leg.

Try the same exercise but step backwards instead and then bring your foot back to where you started.

As you improve you may be able to make the steps longer.

Both of these exercises give practice in how to save yourself if you do lose balance, say if someone knocks into you by accident.



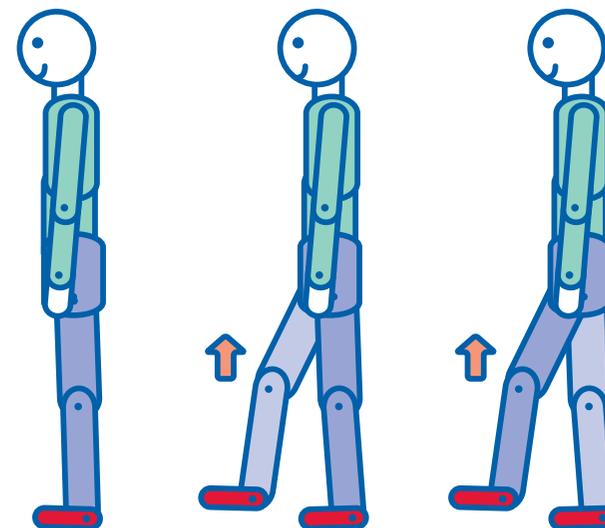
Exercise 9



Starting position Stand with feet slightly apart

Try to lift one leg off the floor and hold your balance. Lower, then try with the other leg. Count, aiming for 15 if you can.

If you are very brave try this with your eyes closed but be careful and always make sure there is something firm to catch hold of.



If you have any difficulties working out the right exercises for you then contact your physiotherapist who should be able to help.

Section 4 COPING WITH SPASM

Many people with MS have problems with one, two or even all four limbs going into spasm at different times. Although it is difficult to prevent spasms there are measures you can take that may help in managing and therefore relieving some of the symptoms. There is of course a range of drugs available which can also help but I am only going to describe physical, non-invasive techniques here.

Spasm will happen in a pattern, so if you learn to “break” the pattern then you can reduce the symptoms. To be able to affect the pattern of spasm, posture and positioning are very important factors.

The simple act of standing up can help to decrease the incidence of spasm in the legs. This is partly why it is so important to try and stand each day.

When you stand you must make sure that you get your weight evenly over the whole sole of each foot. Keep your weight forward over the foot to enable your toes to stay in contact with the floor and try not to stick your rear end out! Tilt beds and standing frames can also help if you have access to them.

Spasm when sitting

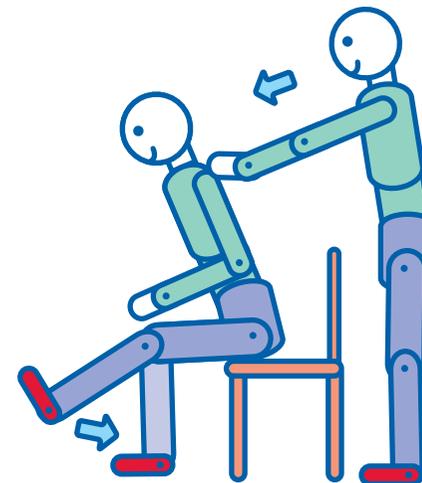
When sitting the legs can go into spasm and make you feel as if they are totally independent of you!

■ Jumping feet

This can occur when the ball of the foot is on the ground but the heel is up and jumps up and down repeatedly. Make sure the foot is in a position where the whole sole can be in contact with the floor. Bring the trunk well forward over the hips, then push down onto the knee with a steady downward pressure - or get the help of someone else to lean down onto the knee.

■ Shooting legs

If your legs shoot out straight, you need to bring your trunk forward over your hips and lean forwards. This should break the spasm and the legs should gradually relax. If, however, the spasm is very strong and pushes you back in the chair so that you are unable to come forward then you need the help of another person to push you forward from behind, leaning their body weight against your back and shoulders.

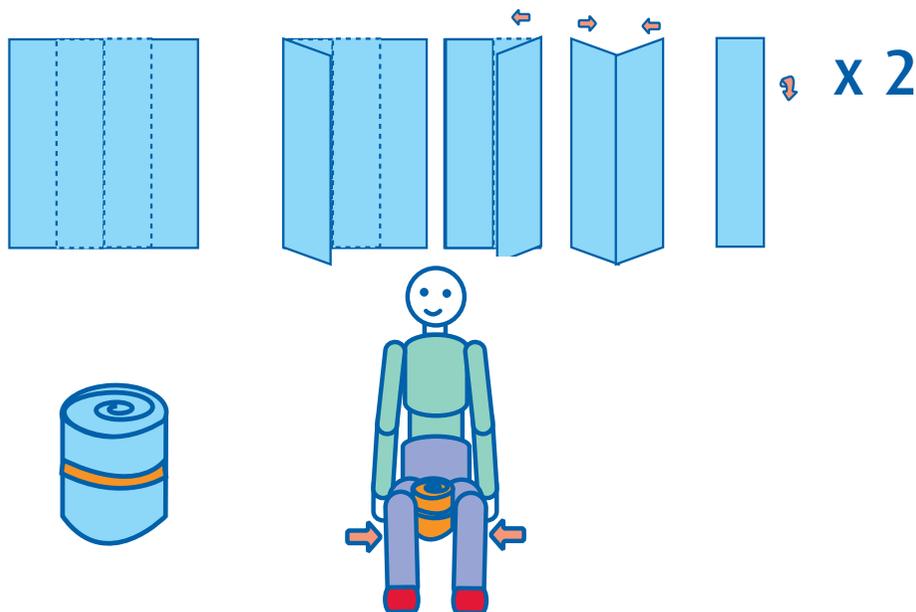


■ Knees clamping tightly together

This can be a problem sometimes if travelling in a car and being jostled about - or it can happen if something just touches the legs.

Sometimes it can be stopped by gently lifting the leg, when bent, from behind the knee. This can also help with jumping feet.

A pommel between the thighs can help stabilise the pelvis and therefore reduce the spasm. To make a pommel you need two towels approximately 24" x 46" (62cms x 116cms). Fold the first towel in 4 lengthways and roll it up tightly, then fold the second towel and roll it around the first one. You can secure it with a scarf or bandage or some non-allergenic tape. You should end up with a pommel approx. 5-6ins (14-15cms) in diameter and 6ins (15cms) long. Position the pommel between the fleshy part of the thighs (not the bony part of the knees) with the flat side uppermost. Once in position the legs should start to relax. Although this may look a little odd many people find it very comfortable, and cat lovers might like to note that cats prefer expanded laps!

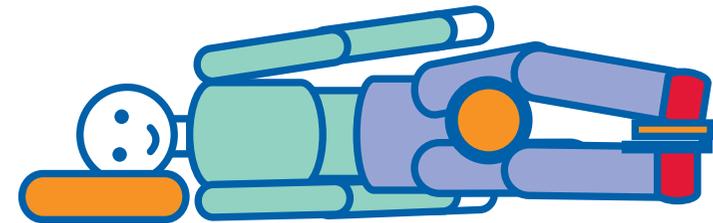


Spasm when lying down

Getting from the sitting position to the lying position can itself cause spasm, with one or both legs shooting out straight, and sometimes the trunk becoming tight and stiff. The "pattern" of the spasm is trying to push the whole body out straight - and sometimes it does! When moving from sitting to lying, it can lessen the likelihood of spasm if both knees and hips are bent up.

A lot of people find that lying on their back increases spasm, often with the legs pushing out straight and the thighs clamping together. Sleeping on the side is therefore more comfortable though this too can cause problems, encouraging the "windswept" look where one leg drops down onto the other and consequently tilts the pelvis and makes it unstable. This can lead to the legs going into spasm or "jumping" during the night and disturbing sleep. This position can also be a problem for people with back pain because of the pull on the pelvis.

To counteract both problems of pain and spasm you need a "sausage" to support the top leg and stabilise the pelvis. This "sausage" or positioning roll is available commercially* but it is worth making your own temporary version first with a pillow and towel to see if it helps.

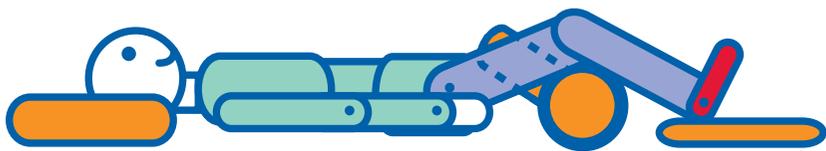


* from C&S Seating Ltd
Tel: 020 8665 5869
Email: candsseating@btconnect.com

Fold the pillow in half lengthways, then roll it tightly in the towel. Feather pillows usually squash down too much; man-made seem to work better. The “sausage” should end up the length of the pillow and 6ins (15cms) in diameter.

Position the roll in the fleshy part of the thighs with the longest part behind to prevent any rolling backwards. Check the position of the ankles. A folded piece of sheepskin might be needed to prevent the bony points from rubbing together. Once the roll is in position, the top leg is supported and level with the bottom leg leaving the pelvis in a stable position.

If you can only lie on your back, you may find a T roll will help – a combination of the “sausage” and the pommel used in sitting, with the “sausage” under the knees and the pommel between the thighs. This will minimise the “windswept” look and decrease any spasm. You will also need to put a pillow under the feet to relieve pressure from the calves.



When using positioning rolls of any sort it is very important to check the effect of the rolls on the skin. Any redness or soreness must be monitored carefully in case of pressure sores developing. It may be sensible to limit the amount of time you use a roll and also to discuss positioning with your physiotherapist or nurse.

Section 5 COPING WITH PAIN

As with many aspects of MS, there are no easy answers to pain and altered sensations, but there are one or two tips which might prove helpful. Obviously you should also talk to a doctor about medications which can be useful.

■ Supersensitivity of the skin

Many people with MS suffer from altered sensations of the skin, to the point that it could be described as super-sensitive. This is a difficult symptom to treat, but the “towel tip” can take the edge off these sensations and allow a little more relaxation. The vicious circle needs to be broken: legs are tender and sore, which lead to feeling tense, which makes the legs worse, which ...and so on.

You need a dry towel folded into a pad to massage the sensitive area.

If it is the foot, put the towel under it but keep hold of either end and pull up and down as if drying the foot. If it is your hands then place a couple of face cloths on the arms of the chair and rub your hands over them.

This is a very cheap technique to try and can be very soothing and relaxing, especially if you can persuade someone else to do it for you!

■ TENS machines

TENS machines are often used for pain relief. They are relatively cheap to buy and work using what is known as the “pain gate mechanism” whereby the body will acknowledge the tingling sensations of the TENS machine, while blocking or shutting the gate on the pain stimuli. They can also encourage the release of endorphins which act as the body’s own pain killers. Your local physiotherapy department should be able to advise you and, in some cases, lend you a machine for a short time to try out.



■ Breathing patterns

When we are in pain or become anxious, we tend to change our breathing pattern, naturally adopting a high breathing pattern in the top part of the lungs and making our shoulders work hard. Relaxed breathing happens lower down at the bottom of the rib-cage and with the diaphragm. To see where you breathe, try putting one hand on your chest and the other on your tummy, as you sit quietly, and feel where your chest is moving. Is it at the top or lower down? If you find you are a high breather, then try sitting quietly for a few minutes each day with your hand on your tummy and feel as if you are bringing your breathing down to a lower level. It's a bit like bringing a lift down from the top floor of a department store - you're aiming for the bargain basement!

If you experience a lot of pain, you may find that calming your breathing is helpful. Pain is always worse when we are anxious, so if we can reduce our anxiety then it follows we should reduce our pain. It can also be helpful to try relaxation techniques and an occupational therapist should be able to point you in the right direction.

This is not to be confused with the deep breathing exercises mentioned earlier.

■ Posture

We have now come full circle back to the introduction because we must not forget that some pain is caused simply because the body is uncomfortable and needs to change position. It is not good for any of us to remain in a static position, so get moving!

CONCLUSION

What I have tried to present in this book is a DIY exercise programme. I believe very strongly that by keeping the body moving, taking note of posture, doing some regular exercise and checking position to decrease any spasms, we can really make a difference to living with MS.

Even if the messages aren't quite as clear and the "auto-pilot" not as reliable as we'd like, we still have the option of regaining control - something which can sometimes be in short supply when you have MS.

Why not give it a go? I wish you the very best of luck.



ACKNOWLEDGEMENTS

A lot of the information contained in this book has developed over the years almost by osmosis. Many people that I have come into contact with may have set off a train of thought which has translated itself into an exercise or a strategy for coping with some aspect of MS. To all those people I am extremely grateful:

The MS Trust, to Lucy and Chris who finally pushed me to do it

The Staff of Newmarket Physiotherapy Department, especially Jean who has been my right arm and Elveen for encouraging me in the right direction

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Pauline Pope, Physiotherapist

The MS Society

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Ian Betts for his great cartoons

The biggest thanks have to go to all my patients, both current and past. They have taught me more than any text book. It is because of them, their families and friends that this book has been written.

Finally I would like to thank my husband and family for their love and support.

The MS Trust would like to thank the expert panel of people with MS and the health professionals who read the draft and made such constructive comments.

The MS Trust is a leading independent UK charity for people with MS, their families and friends, and for all health professionals who work with them.

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