



What is osteoporosis?

Osteoporosis occurs when the struts which make up the mesh-like structure within bones become thin causing them to become fragile and break easily, often following a minor bump or fall. These broken bones are often referred to as 'fragility fractures'. The terms 'fracture' and 'broken bone' mean the same thing. Although fractures can occur in different parts of the body, the wrists, hips and spine are most commonly affected. It is these broken bones or fractures which can lead to the pain associated with osteoporosis. Spinal fractures can also cause loss of height and curvature of the spine.

This fact sheet provides tried and tested ways of managing persistent (chronic) pain caused by fractures (broken bones) in addition to, and sometimes instead of, taking pain relieving medications.

Pain with osteoporosis happens only if you have had a fracture (broken bone). Fracture pain can be acute (intense) for around six to eight weeks whilst the fracture is healing and then it gradually improves. Most people with fractures recover well and return to a full and active life, although sometimes a healed fracture may continue to cause pain. This persistent or 'chronic' pain can happen with any fracture, but it is more likely with spinal compression fractures.

For more information on spinal and other fractures, see Chapter 1 of our booklet 'All about osteoporosis'.

Unfortunately, persistent pain can have a greater impact on day to day life and activities. It can affect your mood and feelings about yourself, your ability to concentrate and stay physically active, and your general enjoyment of life. These in turn can make pain more difficult to live with and manage.

To find out more about different ways of relieving pain, including courses on managing pain and long term health conditions, see Chapter 5 in our booklet 'All about osteoporosis'.

For more information on how pain can be relieved with medications see our fact sheet 'Living with osteoporosis: pain relieving drugs after fractures'

As the experience of pain is very individual, a pain relieving medication which worked for one person or on one occasion might not be as effective for another. If your pain has not been relieved to the extent that you were hoping for, you may feel frustrated, let down and left to cope with your pain alone.

Unfortunately, pain medications do not always provide complete relief from pain and you may need to be realistic about the extent that medicines can help. This is especially so with persistent pain. If you are having problems with pain, enough to stop you getting on with life, consider the following.

What can I personally do to manage my pain?

You may find it helpful to follow these practical steps which have been adapted from tried and tested methods and made relevant to chronic pain experienced after fractures:

- **Understand your pain**

Not knowing why you are in pain and what makes it better or worse can make it more difficult to live with and get on top of. To help you understand your pain better, you may need answers to some of these questions: What is causing your pain? Is your pain a sign that fracture healing is still taking place (acute pain)? Has your fracture healed and you now have chronic (persistent) pain? Do you have nerve pain? Which pain relieving medications can you take? Do you know how to use them effectively? Which activities make your pain better or worse? Do your thoughts, feelings and emotions affect

your level of pain? If you are having difficulty answering any of these questions, ask your doctor for more information or consider ringing the Helpline at the National Osteoporosis Society on 0808 800 0035.

- **Acceptance**

Acceptance can seem a strange step to take. You may think this means 'giving in' to pain or putting up with it but with gritted teeth. It is neither of these. Instead it's an important step towards taking an active part in managing your own pain. Unfortunately, many people find that a cure for chronic pain is not possible, and the exhausting search for a cure can leave you feeling very frustrated and let down by the medical profession. Anger, depression and fear of what the future holds for you are emotions which can make the pain worse (see the section 'Why does my pain change depending on my mood?'). Gaining an understanding of the pain you live with, and finding ways to successfully self-manage it requires courage to accept its presence in your life for the foreseeable future. You can learn how to self-manage your pain, and the support of your family, friends, work colleagues and doctor will help you with this. Self-managing your pain helps you to avoid relying completely on pain relieving medications and instead use techniques which can be incorporated into your daily life.

- **Learn practical tools for day to day life:**

Pacing

One of the problems faced by people living with persistent pain is how to remain active and deal with the daily tasks that everyday living brings, without increasing their pain. A common experience is the 'boom and bust' or see-saw effect. On good days it is natural to want to catch up on household or gardening tasks, regular exercise or a hobby. But doing too much on a good day can be followed by a worsening or 'flare-up' of pain. The end result is frustration and despondency, the need for more pain relieving medications and inactivity for a few days while waiting for the pain to settle. Then this pattern starts all over again when the daily chores mount up again. If this sounds familiar, read on:

'Pacing' helps to avoid this unhelpful and

frustrating pattern, but it needs a certain amount of planning and self-discipline. It means stopping an activity *before* the pain returns so that you are able to complete the activity at a later time without causing pain.

Remember: Pacing means 'Do a bit, rest a bit, and then do a bit more'

When new to pacing you need to work out at what point pain starts or increases with each activity. There will be different lengths of time that you can manage with each activity, so keep a note of these and use them to plan your day. An activity can always be returned to later. So the idea is to do it in smaller 'chunks' until it is completed. People find that by spacing out activities over the course of day they can be done without 'paying for it' later on.

Through being active on a daily basis, instead of one day out of three with the 'boom and bust' approach, fitness levels gradually improve and you may find that you can slowly extend the length of time you can spend on an activity without pain starting. The benefit of pacing is to have fewer bad days and more good days.

This is a simple and common-sense idea but one which needs some forward planning and a commitment to stick to it even when there's a lot to get done and especially when you're feeling fine and are tempted to carry on.

Plan and Prioritise

To make pacing work, it helps to plan ahead and prioritise, especially when it's tempting to fit a lot in to the day. Try making an action plan for the day or week ahead of what you want to achieve, such as household chores, leisure activities and exercise. Plan to do the activity in 'chunks' and jot down how long you plan to spend on these chunks *and then stick to it*. It's very important to incorporate regular rest periods and time for physical and mental relaxation. Don't be tempted to carry on and do more if it's a good day. If you find pain is starting earlier than you anticipated, rest for a short while or do a different activity and try again later.

Think about what else might make it easier and less painful for you to carry out your planned activities. For example, a perching stool which

allows you to semi-sit and avoids prolong standing is useful when cooking, ironing, washing, gardening in the greenhouse or doing some DIY jobs. When resting, put a lumbar roll, a small cushion or rolled up towel in the chair to support the lower back.

For information on where to obtain aids such as a perching stool and a lumbar roll, contact the Disabled Living Foundation Helpline on 0300 999 0004

Relaxation

It is easy to fall into a vicious cycle of pain, tight muscles, stiffness and more pain. It can be very helpful to learn how to relax to avoid pain and for those times when you are in lot of pain. There is a range of materials available in the form of music, spoken word and peaceful sounds which can aid relaxation. You can get commercially prepared relaxation CDs and digital downloads from high street shops, internet stores, libraries and some charities and organisations, such as the Pain Relief Foundation and Arthritis Care (see the information below).

The following list gives details of a small selection of relaxation and meditation CDs that have been recommended by people living with osteoporosis, health professionals and other organisations involved in pain relief. It's important to mention that some may not meet everyone's needs or preferences in terms of style and content, but we hope you find the list helpful.

A selection of CDs and downloads:

- **Living with Chronic Pain** by Neil Berry; To find out more details, visit www.paincd.org.uk/
- **Relax and Release your Pain; Pain Relief without Drugs** and **A Good Night's Sleep** and other CDs, including some downloads by Jan Sadler; visit www.painsupport.co.uk/
- **Relaxation information** by Arthritis Care; Contact - telephone number 0808 800 4050 visit www.arthritiscare.org.uk/
- **Breathe Away Pain and Discomfort** and **A Walk in the Country** and others by Marcia Murray; Contact - telephone number 01484 662635

- **Mindfulness Meditation for Pain Relief; Kindly Awareness Meditation** and **Living Well with Pain and Illness** from www.breathworks-mindfulness.org.uk/ Contact telephone number 0161 834 1110
- **Pain Control** and **Complete Relaxation** by Glenn Harrold (Diviniti Publishing Ltd); www.glennharrold.com/, also commercially available
- **Coping with pain** and **Coping with back pain** and others by Pain Relief Foundation; www.painrelieffoundation.org.uk Contact - telephone number 0151 529 5820

Try these simple steps to help you relax:

- Make sure you will not be disturbed. Put on some gentle music and burn aromatherapy oils or a candle containing lavender which can be very relaxing.
- Get yourself into a comfortable position and keep yourself warm. Lie down on the bed or recline in a comfortable armchair, perhaps covering yourself with a blanket. Use plenty of cushions for support and put one under your knees to help keep them a little flexed and maybe one between your thighs.
- Close your eyes and let your whole body feel so heavy that it is sinking into the bed or chair. Let your mind float away. Remain like this for 20 minutes or however long suits you, then gently stretch out your body as you might when waking in the morning and ease yourself into an upright sitting position.
- Stay sitting for a minute before getting up. After you have practised relaxation, always get up slowly so that you do not feel dizzy. Remember to blow out the candles!

If you find it hard to relax, try this:

1. First learn what it feels like when your muscles are tense or 'ready for work' and when they are relaxed. Do this first by tensing them, holding for a second and then letting go completely.
2. Then, starting with your feet, tense your toes and legs, hold for a second and then let go completely.

3. Relax your knees and allow them to naturally roll gently outwards, then tense up, hold and let go.
4. Tighten your bottom muscles, then relax.
5. Do the same for your arms.
6. Screw up your face muscles into a frown. Make an O with your mouth and then change your mouth shape as if saying a wide 'ee', then relax and feel the difference.
7. Finally, do a gentle whole body stretch from head to toe.
8. Repeat three times.

Distraction

Following a hobby that needs concentration is a good way to keep negative thoughts away for a while and your mind off your pain. Crosswords and puzzles, playing an instrument, reading, surfing the internet, sewing, drawing, photography, crafts and gardening are just a few hobbies that need enough concentration to occupy and distract the mind. As with any activity, you will still need to consider pacing. Sitting in one position or being physically inactive for too long without a break can make you stiff and uncomfortable. Keep the hobby as a source of enjoyment rather than stiff muscles. Find your threshold and stick to it. You can always return to where you left off.

Exercise

It is important to stay active as this helps to improve pain in the long term and maintain overall fitness and quality of life. To keep motivated, it helps to find an exercise that you enjoy doing. It can be walking, Tai Chi, going to the gym or exercise classes, swimming, home-based exercises or a combination of any of these. Further information and ideas on exercises after fractures are in the booklet 'Exercise and Osteoporosis'.

With any new exercise regime start off slowly and gradually increase it over time. If you are unused to regular exercise, you may feel a little achy for a few days afterwards. This is normal when your muscles are not used to being exercised in this way. Do not be tempted to push through the pain or do too much on good days when pain is better as you may experience a pain flare-up. It's best to stick to a routine which

allows you to exercise without a worsening of pain. In this way you will be able to remain active everyday rather than have the 'boom and bust' effect of over-doing it and then having to stay in bed or rest the next day.

Flare-up plan

Despite your best efforts there will be occasions when you have pain flare-ups. This is when pain and discomfort temporarily get worse. Flare-ups may not last long but they can happen quickly and sometimes without warning. It may be tempting to take to your bed and worry that you have done some damage to cause the pain and end up feeling anxious and despondent. But usually flare-ups are not a sign of more damage, and it may be more helpful to think of them as a nuisance and nothing to worry about, and then to put in action a 'flare-up plan'.

To make your flare up plan, note down the things you have found that make your pain easier and what has worked for you before. This may include:

- Applying a heat pad to the painful area or taking a warm bath or shower
- A gentle massage
- Using a relaxation technique you have learnt; maybe put on a relaxation CD
- Trying a distraction technique. Find something that focuses your attention away from your pain for a while. It may be watching a DVD of your favourite film or comedy – something that makes you feel more relaxed and encourages happier thoughts.
- Taking a dose of your pain relieving medication that you use for flare-ups. If you are not sure what you can take, make a point of asking your GP

Take it easy – briefly cut back on normal activities. You may be more comfortable lying down, but try not to rest for too long. You may need to ask for some help from family, friends and work colleagues for a while, but ease yourself back into your usual routine as soon as you can as this can help to speed your recovery.

When you feel better, think back to what may have caused the flare-up as this can help you prevent it in the future. Add notes to your 'Flare

up plan' of anything else you tried which helped ease the pain. If you feel you needed more help from family, friends and colleagues than you received, talk to them to let them know what happens when you have a flare-up and how they can best help you.

Although it's normal to feel fed up and frustrated when you have a flare-up, it's worth remembering that anxiety, anger and self-blame cause more muscle tension and can make your pain worse. Be kind to yourself and remember that you have come through flare-ups before and you will get through this one too.

Know who is there for you

There may be times when it can feel lonely living with persistent pain. This is especially so if you are afraid of being a nuisance if you ask for more support, or if you feel reluctant to tell your doctor when a prescribed pain relieving medication hasn't really helped. Sometimes your doctor cannot sort out all of your pain problems, but it's important that they or another health professional involved in your care supports you and works with you in finding the best way to relieve your pain.

Medications, however, are just one aspect of how pain is relieved and managed. You also have an active and essential part to play, and this can be through trying out and using the pain management techniques described in this fact sheet.

Apart from the GP, there are others who can also provide useful support and information. Get to know who to call if you are concerned about pain. This may be the National Osteoporosis Society Helpline (Freephone 0808 800 0035) or a dedicated pain helpline such as 'Pain Concern' (0300 123 0789); NHS 111 or your local GP out-of-hours service, a district nurse, and family, friends and neighbours.

Why does my pain change depending on my mood?

Pain can make us feel despondent and tense but importantly what we think and how we feel can also influence pain - making it better or worse.

Those living with persistent pain often say that it's worse when they are feeling anxious, depressed, bored or lonely. When feeling happier, relaxed or occupied with a hobby or enjoying time with family and friends, pain tends to feel better and less dominating in their lives.

This has been explained as the 'Pain Gate Theory'. This Theory says that nerve messages travelling between the body and the brain go through so-called 'gates' which can be opened or closed. These nerve messages include pain signals, physical (bodily) sensations and messages produced by our thoughts and feelings. If you know what 'opens' and 'closes' the gate this can help to lessen and manage your pain - see the lists below:

Opens the gate to pain signals (pain may increase)	Closes the gate to pain signals (pain may be reduced)
• Stress	• Relaxation and feeling calm
• Tension	• Gentle music
• Anger	• Happiness and laughter
• Sadness	• Exercise and gentle stretching
• Worry	• Distraction
• Anxiety	• Gentle massage
• Fear	• Pain relieving medications
• Lack of activity	• Locally applied heat or cold
• Focusing on the pain	• TENS machine

Adapted from My Pain Toolkit by Pete Moore & Jessica Bird (2012)

Different types of pain signals travel to the brain at different speeds. For example, sharp, intense pain signals (such as from an injury or new fracture) are sent along a 'fast track' route to the brain. At the same time, other 'slower' pain signals are also on their way to the brain. This 'slow' type of pain tends to feel dull, aching, cramping or burning.

It's possible to block some of these slower pain signals reaching the brain. A TENS machine and locally applied heat or cold (see below for more information) can 'close the gate' on some of these pain signals, as can exercise, distraction, a relaxing gentle massage, or watching a TV comedy programme, listening to an engrossing radio play or music you love, reading a good book, and having calmer, happier, thoughts and feelings.

If anxiety and depression or other feelings and emotions are making it difficult for you to manage your pain, let your GP know and ask for their help and support. Sometimes treatment in the form of medication or counselling may be offered and discussed with you. Reducing feelings of depression and anxiety can have a very positive and beneficial effect in helping you manage and reduce persistent pain.

Find out if there is a self-management course for long term health conditions in your area or if you could be referred to a pain management clinic. These can show you a range of strategies which you can use to manage your pain and improve your quality of life.

Try out the effects of 'closing the gate' on your pain for a while and find out what works best for you. It doesn't promise to relieve all pain, but it can often make a valuable difference.

For more information on TENS, how to use heat and cold therapy, pain management clinics and self-management courses see Chapter 5 in our booklet 'All about osteoporosis'.

For exercises which can help reduce pain from spinal fractures, look in our booklet 'Exercise and osteoporosis'.

Useful Contacts

Pain Concern

Produces information on pain using a variety of media including podcasts; provides support to people with pain and those who care for them, and campaigns to raise awareness about pain and improve the provision of pain management services.

Helpline: 0300 123 0789

<http://painconcern.org.uk/>

Action on Pain

Provides support and advice for people affected by chronic pain. The helpline is run by volunteers who either have chronic pain or are affected by it in one way or another.

Helpline: 0345 603 1593

www.action-on-pain.co.uk/

The Pain Toolkit

This website includes a handy guide with tips and skills to support people managing persistent pain. Pete Moore, who has persistent pain, asthma and osteoarthritis, put these tools together with the help of friends, family and health care professionals.

www.paintoolkit.org/

BackCare

Aims to reduce the burden of back pain by providing information and education to all people and organisations affected by back pain and funds scientific research into the causes, prevention and management of back pain.

For general information contact Customer Services Tel 0208 977 5474

www.backcare.org.uk/

Healthtalk.org

Provides free, reliable information about health issues by sharing people's real-life experiences. You can watch online videos of people sharing their stories about a range of illnesses and conditions, including chronic pain.

www.healthtalk.org/

PainSupport

Aims to help people in pain to move forward in their lives with better pain self-management, with or without drugs. The website provides information on pain management and pain relieving techniques and has books and CDs for sale and free downloads. It features a Discussion Forum and a regular newsletter.

<http://painsupport.co.uk/>

Disabled Living Foundation

A charity which provides impartial information and expert advice on independent living. For over 40 years it has developed a very wide range of information on daily living equipment and other useful advice for people who might need some help in day to day living.

Helpline: 0300 999 0004

www.dlf.org.uk/

The **National Osteoporosis Society** is the only UK-wide charity dedicated to improving the prevention, diagnosis and treatment of osteoporosis and fragility fractures. The Charity receives no Government funding and relies on the generosity of individuals to carry out its vital work.

For osteoporosis information and support contact our Helpline:

 **0808 800 0035**

 **nurses@nos.org.uk**

To become a member or make a donation:

 **01761 473 287**

 **join online at www.nos.org.uk**

To order an information pack or other publications:

 **01761 471 771**

 **info@nos.org.uk**

or download from our website at www.nos.org.uk

This fact sheet is one of a range of publications produced by The National Osteoporosis Society. If you would like more general information about osteoporosis see our booklet *All about Osteoporosis*.

This information reflects current evidence and best practice but is not intended to replace the medical advice provided by your own doctor or other health professional.