

The Challenge of Osteoporosis

Self-help and the Alexander Technique

Written by Carolyn Nicholls BA (Hons) MSTAT
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What is osteoporosis?

Osteoporosis literally means 'porous bones'. Good strong bones are made of a thick outer case that is filled with a tough inner mesh made up of a mixture of collagen (protein), calcium salts and other minerals. The inside looks like honeycomb, (imagine breaking open a crunchie bar!) and there are blood vessels and bone marrow in the spaces between bone. When someone has osteoporosis, the holes in the honeycomb-like mesh become bigger, making the bone fragile and liable to break easily. Osteoporosis usually affects the whole skeleton but it most commonly causes breaks (fractures) to bone in the wrist, spine and hip.

What are the effects of osteoporosis?

Osteoporosis is a silent disease that weakens the bones to the point that they become so frail they can spontaneously fracture, or a very small fall results in devastating damage. And it's on the increase. Figures from the National osteoporosis Society (NOS) reveal that every three minutes, someone in the UK has a fracture due to osteoporosis. This year, 70,000 people are likely to suffer a hip fracture, 50,000 may fracture their wrist, and 120,000 will have the pain of a spinal fracture. Osteoporosis costs government and the NHS 5 million pounds every day.

Behind these statistics is the pain that people experience due to the condition and the stress they and their families feel when trying to cope with osteoporosis.

Bones, muscles and posture

Our muscles need our bones to be strong so that they can pull on them to move us around. Bones and muscles need each other for us to function well. The bones act as 'spacers' keeping our body upright so that our ribcage and pelvis can be where they are supposed to be and not crushed down on each other. Inside our ribcage we keep our vital organs, our heart, lungs, liver, kidneys. Lower down in our abdomen we have endless tubes of digestive tract winding around, fitting in where it can. Our organs and our digestive system need space to work freely. If you have very poor posture, then you are basically squashing your vital organs-and they don't like it!

Osteoporosis can adversely influence your posture. One of the effects of spinal fractures is to change the way the spine supports the body. Many people find they are now rather stooped, with a considerable curve in their upper back. This has consequences for their posture and breathing. If the upper back is too bent over, then the neck pokes forward and the weight of the head is not properly supported by the neck muscles. This in turn means that the head pokes out, so that people can see where they are going. It also means however that the neck muscles have to work overtime to support the head in this unnatural position and neck strain becomes an additional problem.

Another effect of a stooped posture is that the ribcage, no longer properly supported by the spine, tends to 'sit' on the pelvis and your waist disappears! This affects two vital functions, breathing and

digestion. A common discomfort following spinal fractures is the protruding abdomen, which makes digestion hard work, and the ribcage being compressed makes breathing more of an effort. To put it simply, everything is squashed and basically your body doesn't like being squashed.

People also notice that they lose height, they are considerably shorter, partly due to the distortion of the back, and they can no longer 'stand up straight'

How can you help yourself if you have osteoporosis?

The way we use our bodies has a direct effect on how our bodies work. If we are stooped and bent over then our bodies suffer the consequences. However, even if you have suffered postural problems due to osteoporosis there is a lot you can do to help yourself make the best use of what you have.

The Alexander Technique

Is a method of using our minds and bodies naturally. Individuals have lessons to learn how they create tension in their own bodies and how they can learn not to do so. It is taught by a skilled practitioner using their hands very gently to encourage your musculature to 'let go' and start to release. It's not relaxation, although most people do feel much better and more comfortable when they have had a lesson.

It is concerned with organising the body so that we can move and breath freely and easily. If our posture is poor, then we are not 'in balance' and movement becomes more difficult. Many people suffering from osteoporosis use a stick or even two to help them walk. This is usually because they feel very precarious on their feet because their balance has been changed. What is not so obvious is how they can address that problem. If you are stooped, and bent, then your whole orientation is downwards, towards the floor, as if gravity is claiming you! The Alexander Technique can educate you to use gravity properly so that instead of pulling down towards the floor, you are springing up away from it. This sounds easy but it is quite a subtle process. It doesn't work simply to stand up straight-even if you could! What works is learning how to stop the pulling down and to allow the bodies' natural poise to start to return.

Self-help tape

One procedure that is practised when you study the Alexander Technique is a state of balanced resting called semi-supine. This is a way of lying on your back, with the head supported and the knees bent. It encourages subtle reorganisation of the musculature of the back, which then starts to support you more. It is not a quick fix, and it requires some effort on the part of the person using the procedure.

High Energy has produced a CD called *The Magic of Gravity-Introducing the Alexander Technique* and this has 'talk-throughs' with information about what to do. The procedures are usually practised lying on the floor. For people with moderate to advanced osteoporosis, this may not be possible and, due to strong interest from sufferers, High Energy is producing a tape with talks adapted to those with mobility problems due to osteoporosis. This will be available in the next two months from the website www.high-energy.org.uk

Working with the tape gives people a way of understanding their own movement and how to improve it.

What else can you do?

Your lifestyle can do a lot to help you, our bones and muscles need exercise to continue to work well. Bone is a living tissue and needs the stimulation of weight bearing to encourage regeneration of more dense bone tissue. So walking is strongly recommended. With the help of the Alexander Technique and the tape, you can gain double benefit by understanding how to walk better so that you are not unwittingly contributing to the problems you already have.

Good diet is vital too and for more information you can contact the National Osteoporosis Society who produce pamphlets on all aspects of osteoporosis including diet sheets and information on medication and bone scanning. Contact them on www.nos.org.uk

Who is at risk?

We are living longer as a population and everyone is potentially at risk of osteoporosis because of the bone loss that occurs with ageing. Keeping physically active can be a great benefit. In addition to ageing, there are other factors, which can increase your risk of osteoporosis:

For women the factors are:

A lack of oestrogen, caused by either an early menopause (before age 45) or early hysterectomy (before the age of 45), particularly when both ovaries are removed as well (oophorectomy)

Young women who miss periods for six months or more (excluding pregnancy) either from over-exercising or over-dieting. Young female athletes in serious training need to be aware of their risks and should seek specialist nutritional advice. It is not enough to 'eat well', you, and your coach should be aware of your increased need for calcium and vitamin D so as to protect you for later life.

For men the factors are:

Low levels of the male hormone, testosterone (hypogonadism)

For both men and women the factors are:

Long-term use of high dose corticosteroid tablets, which may have been used for conditions such as arthritis or asthma.

A close family history (mother or father), of osteoporosis particularly if your mother had a hip fracture

Other medical conditions such as Cushing's syndrome or liver or thyroid problems

Malabsorption problems that might be caused by Coeliac disease, (gluten intolerance)

Crohn's disease, or gastric surgery.

Long-term immobility

Heavy drinking

Smoking

What can you do to lower your risk?

Osteoporosis is a silent disease, you won't notice your bones getting thinner and only proper assessment can reveal it, but if you think you may have increased risk factors then contact your GP who can offer you advice.

Learning to use your body well with the Alexander Technique will also help minimise any problems that you have. It will not prevent osteoporosis but if you are using your body well than you can minimise the pain and damage the disease can cause.

For further information contact:

Self-Help Tape available from High Energy www.high-energy.org.uk, Tel: 01273 236035

The Brighton Alexander Technique College, Tel: 01273 562595, for information on Alexander Technique Teacher Training

The Society of Teachers of The Alexander Technique (STAT) www.stat.org.uk, Tel: 02072843338 for lists of local teachers.

The National Osteoporosis Society (NOS) www.nos.org.uk for information on osteoporosis, support groups and general advice.