

VERTEBRAL COMPRESSION FRACTURES (OSTEOPOROTIC)

As Osteoporosis advances, it can lead to painful fractures in the body. Reducing bone density with age is a major contributor. In the spine these are known as Vertebral Compression Fractures

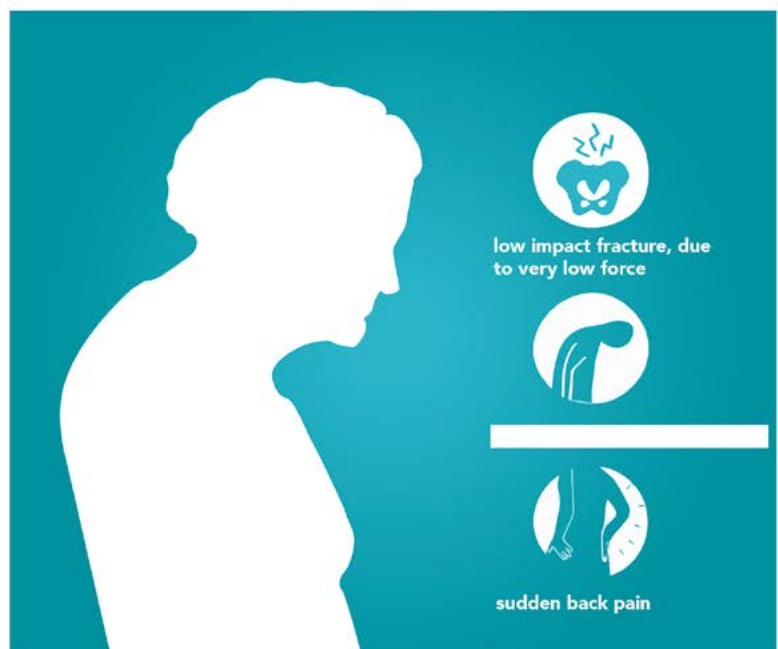
What is Vertebral Compression Fractures?

As Osteoporosis advances, it can lead to painful fractures in the body. Reducing bone density with age is a major contributor. In the spine, these are known as vertebral compression fractures. When a vertebra in the spine collapses it often causes pain, deformity of the spine and loss of height. These fractures most commonly occur in the thoracic and lumbar regions in the spine. The leading cause of VCFs is low bone density caused by advanced stages of osteoporosis. More than 3 million women in the U.K. have osteoporosis.

If Osteoporosis is neglected, it can lead to complications as it advances. Moderate Osteoporosis usually requires force and trauma such as falling or lifting a heavy object before it results in a vertebral compression fracture. However, with advanced cases of osteoporosis, a VCF can occur even while performing simple daily activities, like stepping out of the shower, sneezing forcefully, or trying to lift a light object.

Non-osteoporotic VCFs can occur, but are usually due to accidents, trauma injury to the vertebrae and even cancer.

VERTEBRAL COMPRESSION FRACTURES

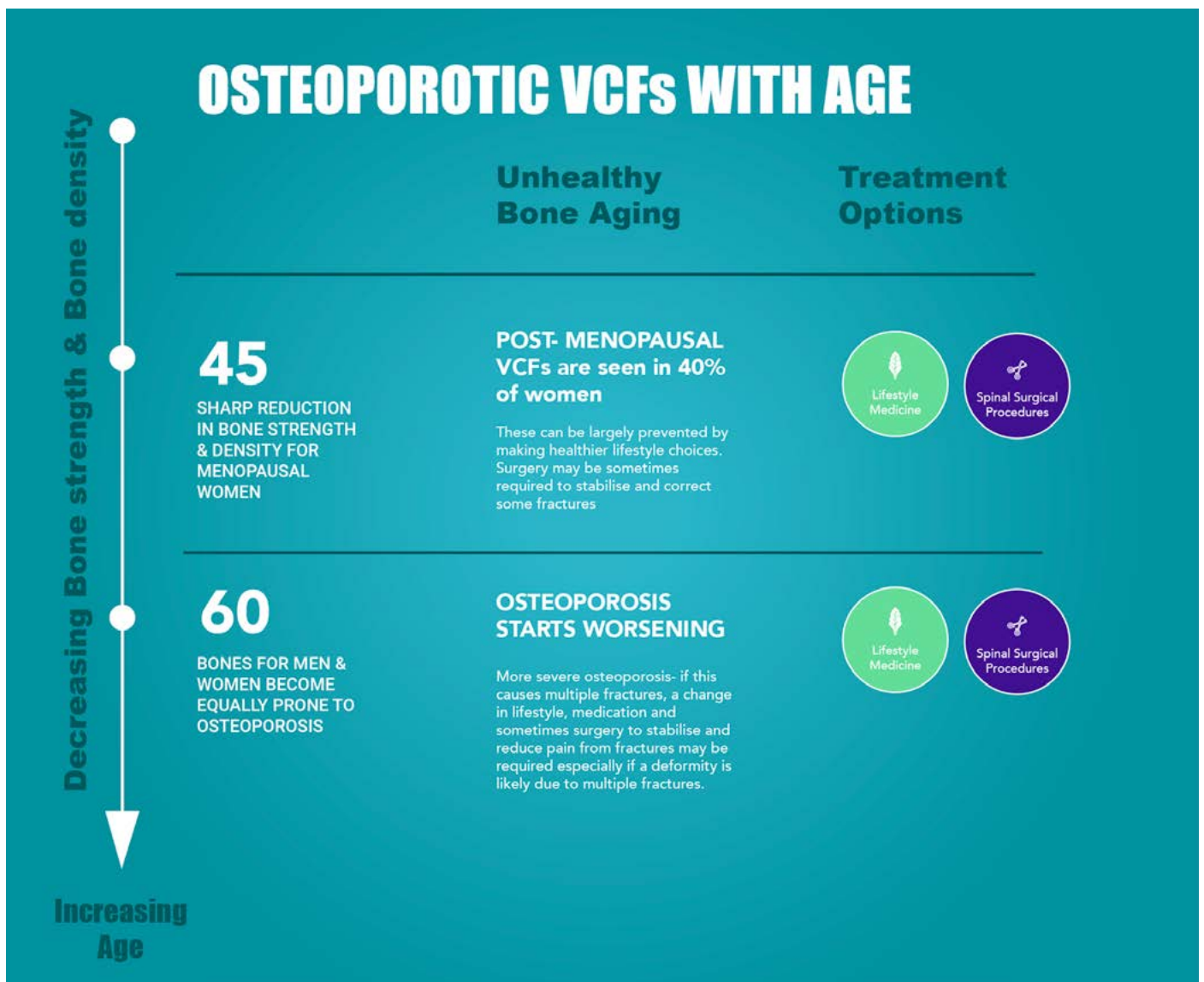


With progressing age, osteoporosis can result in painful compression fractures in the spine resulting in stooped posture and height loss, and sudden back pain. It is wisest to improve one's lifestyle to prevent osteoporosis or at least delay its onset.

How common are Vertebral Compression Fractures?

VCFs are quite common fractures in patients with osteoporosis. According to the NHS, approximately 3 million people in the UK are believed to suffer from osteoporosis. Statistics indicate that there are over 230,000 fragility fractures in the UK each year as a result, many of these being VCFs. Patients who have had one osteoporotic VCF are sadly at five times the risk of sustaining a second VCF. Sometimes, a VCF can be present with either minor symptoms or no symptoms, but the risk still exists for additional VCFs to occur. It is estimated that 25% of all postmenopausal women will suffer osteoporotic VCFs. The occurrence of VCFs steadily increases with advancing osteoporosis. It is estimated that 40% of women aged 80 and older are affected. It is important to note that though VCFs are more common in women, they are also a major health concern for older men after 60 men as they may also suffer from osteoporosis.

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What are the typical symptoms of VCF?

Clinical symptoms of VCFs can include any or a combination of the following:

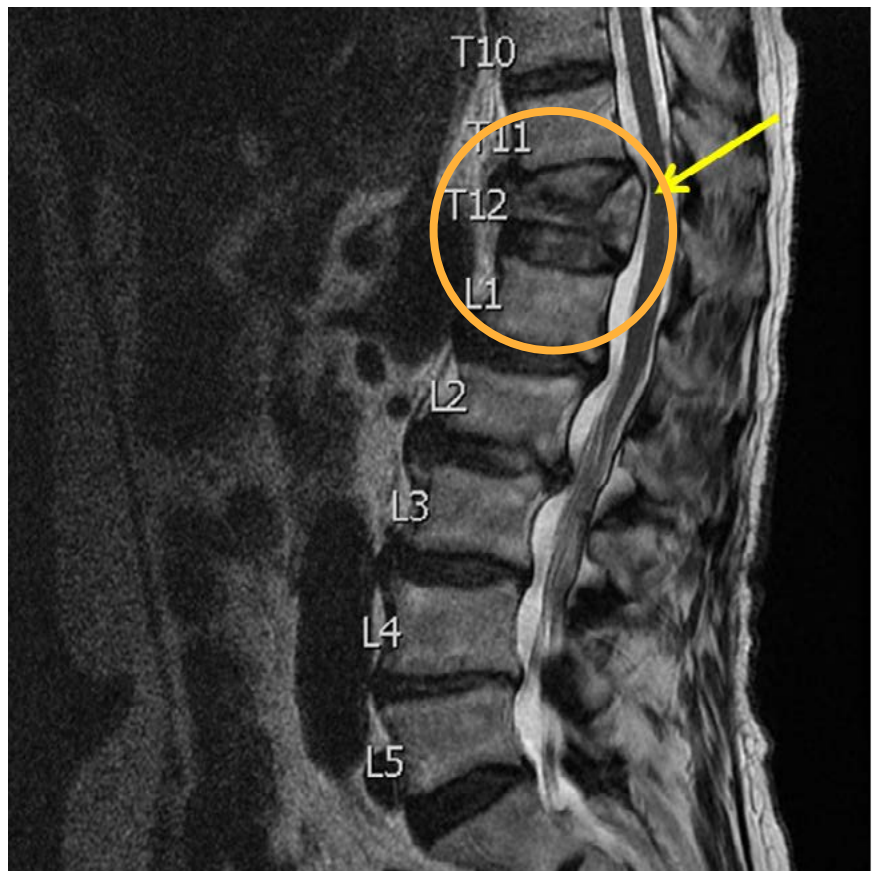
- Sudden excruciating back pain
- Increasing pain intensity if standing or while walking
- Decreased pain intensity while lying on the back
- Reduced spinal mobility
- Decrease in height
- Eventual deformity and disability

How Does One Reach A Diagnosis Of VCF?

Ideally, it is best that one goes to an orthopaedic to have their spine examined before embarking on any diagnosis. They will offer the best way forward, depending up on the condition of the patient. I may recommend certain diagnostic tests to confirm the presence of a vertebral compression fracture. I would do this after conducting a physical examination and taking a detailed clinical history, including risk factors and any other reports if available. It is important to note that osteoporotic VCFs often present no symptoms and can occur without warning. I may suggest x-rays, computed tomography (C.T.) or a magnetic resonance imaging (MRI) to confirm the diagnosis of a VCF. This would help to predict the prognosis and determine the best treatment option for you going forward.

VCF Diagnosis seen in a MRI

The vertebra in the circle is a case of a vertebral compression fracture, where the bone is broken in several places, as a result of osteoporosis.



Often an MRI scan is the best way to reach a diagnosis because it tells us which of the fractures are fresh and which ones are old and healed. Bone marrow oedema is best seen on a STIR sequence. It also gives us an idea about whether the fracture is treatable by surgery (see Balloon kyphoplasty).

What Treatments Are Used To Treat Vcfs?

(a) Pain Relief and Non Surgical Treatments

VCF-related pain if allowed to heal naturally can last as long as three months or more. However, the pain usually significantly decreases in a matter of days or even weeks. People with severe pain from VCFs are often recommended a reduction in strenuous activities, which would spark more pain. Rest and over-the-counter pain killers are also effective. Paracetamol and nonsteroidal anti-inflammatory drugs (NSAIDs) are quite effective, as are muscle relaxants. Medicines for nerve/bone pain are often prescribed. Opioids, due to their addictive nature should be used for short periods of time (1-2 weeks) for acute pain, if at all. Back braces are sometimes used as external support and to limit the range of motion of the fractured vertebrae, like the support a cast provides on a leg fracture, but these are not generally tolerated by older people. Though immediate treatment is essential to alleviate the pain and the risks of fracture, the prevention of subsequent fractures is even more important. Your doctor may need to prescribe drugs known as bisphosphonates (i.e.: Actonel, Bonviva and Fosamax) to help stabilize or restrict bone loss. Also, additionally changes to lifestyle can help in ensuring that your spinal health improves naturally as well.

(b) Surgery

When conservative treatment options prove ineffective, a minimally invasive surgical procedure called balloon kyphoplasty, may be considered as a treatment option. Advances in spinal surgery have reduced the need for more risky invasive surgery in many cases. You can book a consultation with me. Telephone the hospital where you wish to see me, to book your appointment with me.

SOLUTIONS & TREATMENT OPTIONS FOR VCFs



Lifestyle Medicine

Early Adoption Early adoption of a healthier lifestyle results in stronger bones. Neglect can lead to bone density loss and to conditions like osteoporotic fractures. Adoption at early stages can delay painful fractures and slow down the loss of bone density.

Adoption at early stages can delay painful fractures and slow down the onset of fractures and depletion of bone density.

Adoption at advanced stages can reduce pain and perhaps reduce the frequency of fractures such as the hip.



Spinal Surgical Procedures

For Treating Vertebral Compression Fractures

Balloon Kyphoplasty and kyphoplasty can be used to treat osteoporotic fractures.

For Treating Spinal Stenosis resulting from VCFs

If the bone is too porous, and repeated fractures occur, Complex Spinal Revision Surgery might be the only option.

