NHS
West Hertfordshire
Teaching Hospitals
NHS Trust

A guide to...

Balloon Kyphoplasty

Patient Information

Balloon kyphoplasty

What is balloon kyphoplasty and why is it done?

Balloon kyphoplasty is a minimally invasive procedure used in the treatment of osteoporotic vertebral compression fractures. It is designed to stabilise the fracture and help correct the deformity in the vertebral body. Many patients experience an immediate improvement in their back pain following a balloon kyphoplasty.

Osteoporotic vertebral compression fractures often occur without any history of notable trauma. They can cause significant pain. In most patients, the pain improves within six weeks as the fracture starts to heal. Balloon kyphoplasty is considered if:

- The patient is unable to tolerate the pain
- X-rays show that there is progressive collapse of the vertebral body
- The pain is not improving after four-six weeks

A fracture can usually be clearly seen on an x-ray. However, an X-ray does not confirm whether the fracture is acute or healed. If a fracture is considered for treatment with balloon kyphoplasty, then an MRI scan is required first as this shows whether the fracture is acute or not.

Before you come into hospital

If you take anti-inflammatory tablets, you must stop taking them seven days before your surgery.

How is balloon kyphoplasty done?

A balloon kyphoplasty is normally carried out under general anaesthetic, though it can be done using sedation and local anaesthetic. The patient is positioned on their front on the operating table.

A small (less than 1cm) incision is made in the back and a small opening is made into the fractured bone. A small balloon is inserted into the fractured vertebral body. This balloon is carefully inflated to correct the fracture deformity of the collapsed vertebral body. The balloon is then deflated and removed, leaving a small cavity within the vertebral body. This cavity is then filled with bone cement which stabilises the fractured vertebrae.

These steps are performed on both sides of the vertebral body. The procedure is carried out under x-ray guidance. Generally, the procedure takes about 45 minutes. The wounds will be closed with butterfly stitches. There will be no stitches that need to be removed.

What are the risks?

Infection - The risk of infection is less than 1%. All patients receive a dose of intravenous antibiotics when they are going off to sleep. If you develop an infection, it is most likely to be a superficial wound infection that will resolve with a short course of oral antibiotics.

Bleeding – Blood loss is usually minimal with a balloon kyphoplasty.

DVT – Developing blood clots in the legs (deep vein thrombosis - DVT) is a risk of any surgery. The risk is minimised by using thrombo-embolic deterrent stockings (TEDS) and mechanical pumps. These pumps squeeze your lower legs, helping the blood to circulate. They are put on when you go to sleep and stay on until you start to mobilise. We encourage early mobilisation as this also helps to prevent DVT.

Nerve injury – The opening made into the fractured bone is very close to the emerging spinal nerves so there is a risk of physical damage to the nerve. This can lead to a loss of nerve function with persisting pain, weakness and numbness in the territory of that nerve. This risk is kept to a minimum by the use of x-ray.

Cement leakage

When injecting bone cement there is a chance some of it may leak out of the vertebral body. If this happens, it can cause compression of the nerves resulting in leg pain. This may require further surgery to remove the piece of cement. The use of the balloon technique keeps the risk of cement leakage to a minimum.

Back pain

Balloon kyphoplasty is intended to treat your acute fracture pain. It will not relieve you of any other back pain that you may have due to pre-existing wear and tear.

Adjacent level fracture

Having had a vertebral compression fracture, you are at risk of having further fractures at adjacent levels.

What can I expect following my balloon kyphoplasty procedure?

When you wake up following your operation, you will feel bruised in your back. We try and minimise this by injecting local anaesthetic around the wound. Many patients report an immediate improvement in their back pain.

Following the procedure, there will be no formal restrictions placed on you. You can increase your activity level as comfort allows. You will normally stay in hospital for one night, though this procedure can be done as a day case.

What next?

If you have sustained an osteoporotic vertebral compression fracture and are not on any treatment for osteoporosis, then you should make an appointment to see your GP to discuss whether or not you should be on treatment.

Driving

There is no restriction with the DVLA, though there will be with your insurance company. You will need to be able to undertake an emergency stop and be in complete control of your car at all times without being distracted by pain. If this is not the case, then your insurance will **NOT** be valid.

Flying

You should not fly for two weeks following your surgery. You should not undertake any long haul flight for 6 weeks. If traveling on a long haul flight within six months of your operation, you should wear your hospital stockings when flying.

Follow-up

You will be seen back in the clinic a few weeks after your operation. An appointment will be made for you before you are discharged.

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West Hertfordshire Hospitals NHS Trust

Orthopaedics
Watford General Hospital
Vicarage Road
Watford
Herts
WD18 0HB

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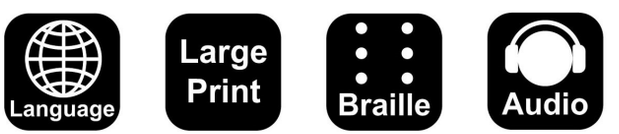

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