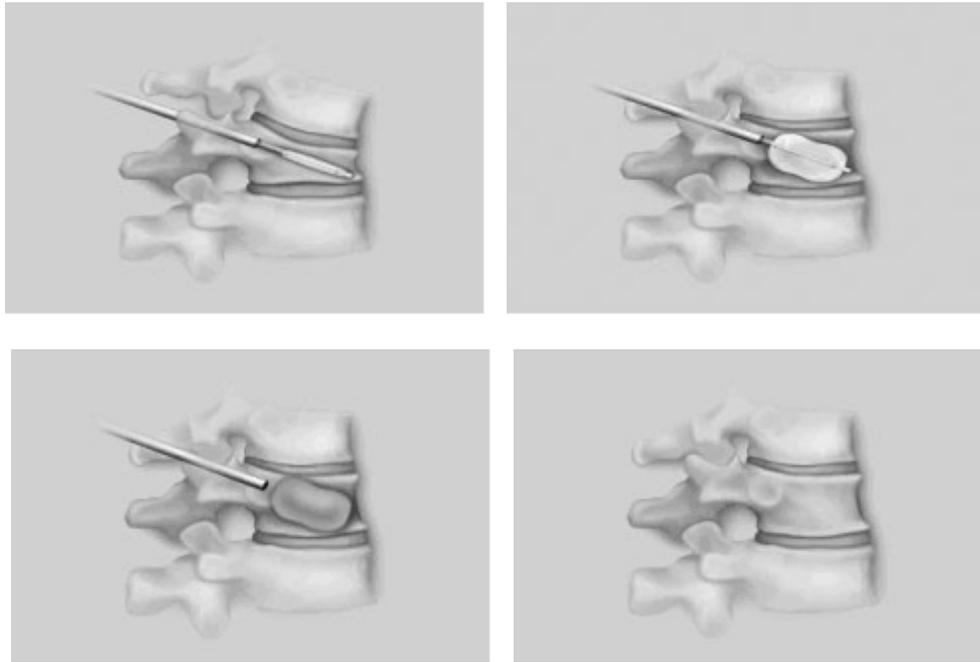


Kyphoplasty

Kyphoplasty is a minimally invasive procedure to mainly, but not exclusively, treat osteoporotic and metastatic vertebral compression fractures of the spine and sacrum. These procedures are performed to stabilise the bodies of the collapsed (fractured) vertebrae and restore the height of the vertebrae.



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In a Kyphoplasty procedure, a balloon is inserted into the vertebral body through the needle and the vertebra is lifted up under the pressure that the balloon generates when it is filled with fluid. Thereafter, the balloon is removed and the void carefully filled with bone cement. All of this is performed under constant fluoroscopic guidance.

It is important to perform a specific sequence MRI scan before a Kyphoplasty or Vertebroplasty procedure is carried out, since it is impossible to distinguish between an old, healed fracture and a new fracture on X-rays or a CT scan. The MRI scan is also useful in diagnosing adjacent or distant damaged vertebrae with impending fractures. It is therefore necessary to have an up to date MRI scan prior to commencing treatment with Kyphoplasty

It is important to have a proper first consultation with a specialist where a full medical history, physical examination and appropriate scans are performed. It is advisable that a family member accompany the patient on the first visit so that all parties are educated with regards to the pathology, treatment and potential complications. After a Kyphoplasty or Vertebroplasty procedure was performed, it is crucial that the patient is followed-up within weeks of the procedure in order to exclude any complications and to diagnose any new fractures.

The patient and the family must know that if and when the patient experiences new acute pain after surgery from the first week onwards, it is vital that the patient is seen by a specialist immediately. The specialist will determine whether there is progressive collapse of the vertebrae that necessitates another operation.

Treating new fractures promptly reduces the pain associated with the fracture and prevents multi-level disease. Multi-level osteoporotic vertebral fractures leads to progressive kyphosis (increased angle or forward bend of the spine) which can lead to other morbidities such as decreased lung function, congestive heart failure, bowel problems, depression, satiety, flatulence and other complications.

There is a small risk of bone cement leakage involved with Kyphoplasty and Vertebroplasty procedures. Bone cement leaking out of the vertebral body can irritate or damage the spinal cord or nerves. This can cause pain, abnormal

sensation, or very rarely, paralysis. In severe cases of cement leakage, an operation may be needed to stop the irritation of the nerves and spinal cord. There is also a small risk of the cement travelling via blood channels in the bone and blood vessels to the patient's lungs.

Ward care

Log-rolling (where the patient's hips and shoulders are kept in alignment) is allowed immediately following the procedure. The patient may sit or walk as soon as they feel up to it, but must be assisted by a member of the nursing staff or a physiotherapist. If the patient is too frail, mobilisation can commence the next morning. The use of a brace is normally not required, except in young patients where fractures were treated with calcium phosphate. Improvement of symptoms is usually immediate with full recovery in the first month depending on factors such as the number of fractured vertebrae as well as the time elapsed since the fracture occurred.

Discharge

Patients are normally discharged the day after the procedure if there are no complications or co-morbidities necessitating a longer stay. You may be given analgesic medication, a back exercise routine and a follow-up date. You are advised to contact your specialist prior to your follow-up date if you experience any undue discomfort after your discharge.

Rehabilitation

Rehabilitation consists of a strict back routine. You are not allowed to bend or twist your back during your rehabilitation period. Use the log-rolling technique when turning over in bed. You are allowed to sit, stand, kneel, walk and drive a vehicle. If you experience acute pain, contact your specialist immediately.

Follow-up

During the follow-up appointment your specialist will discuss ongoing osteoporotic treatment, investigate the cause of any persisting pain or new symptoms and discuss the treatment of co-morbidities.

It is important to realize that you will have to protect your back for the rest of your life and apply good back habits.

