

Vertebroplasty and Kyphoplasty

Who needs it?

This is a technique for stabilising a damaged vertebral body, the supporting blocks of the spine. These may be damaged by osteoporosis, tumours or trauma and this leads to severe pain in and around the spine. If conventional pain relieving techniques cannot adequately control this, a vertebroplasty may be considered.

How is it done?

Under local or general anaesthetic a needle is passed, under x-ray control, into the affected vertebral body or bodies. The position is checked with x-rays again and, when satisfactory, cement is injected into the vertebral body. This solidifies quickly, supporting the damaged bone and relieving the pain. This can be performed at several levels in the spine, as needed. This is a vertebroplasty.

Kyphoplasty is exactly the same as far as the patient is concerned, although it is usually done under general anaesthesia. When the needle is inserted, one on each side, into the damaged vertebral body, a balloon is then passed through it. The balloon can then gently be inflated, using contrast fluid which can be clearly seen on x-ray imaging at the time, to ensure the right volume is inserted. The aim of this is to "inflate" the damaged bone and restore some (or all) of the lost height. [The collapse of the bone leads to a forward angle of the spine - a "Kyphus". "-plasty" means repair of. Hence the name.]

After a few minutes, the balloon is removed and the cavity is filled with cement, to stabilise the broken bone.

How will I feel afterwards?

The severe spinal pain from the fracture is better within a few minutes of the procedure, but passage of the needles, through the spinal muscles, does cause some spasm and hence some back pain. This usually settles down within a day or two.

What is the recovery like?

Most patients go home either the same day, or the following day and need to be careful. They should avoid any lifting or bending for two or three weeks, to prevent the now strong bone causing trouble and leading to a fracture in a neighbouring one.

What are the risks of the procedure?

Risk	Cause	% Risk (note figures vary)
Nerve injury	Damage to the nerve whilst inserting the needle(s)	<1
Spinal cord injury	Damage to the spinal cord by the needle or by cement leaking backwards	up to 1-2
Fluid leak	Small tear in the nerve sheath allowing leakage of cerebrospinal fluid	<1
Infection	Contamination during the procedure	< 1
Muscle spasm	Passage of the needle(s)	All to some extent
Another fracture	Pressure on the other vertebral bodies with a firm "fixed" body	