

Percutaneous vertebroplasty

**Understanding NICE guidance –
information for people considering the
procedure, and for the public**

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197

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Copies of this booklet can be ordered from the NHS Response Line; telephone 0870 1555 455 and quote reference number N0282. A version in Welsh and English is also available, reference number N0283. Mae fersiwn yn Gymraeg ac yn Saesneg ar gael hefyd, rhif cyfeirnod N0283. The NICE interventional procedures guidance on which this information is based is available from the NICE website (www.nice.org.uk). Copies can also be obtained from the NHS Response Line, reference number N0281.

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Contents

About this information	4
About percutaneous vertebroplasty	5
What has NICE decided about percutaneous vertebroplasty?	8
What NICE's decision means for you	9
Further information	10

About this information

This information describes the guidance that the National Institute for Clinical Excellence (NICE) has issued to the NHS on a procedure called **percutaneous vertebroplasty**. It's not a complete description of what is involved in the procedure – the patient's healthcare team should describe it in detail.

NICE has looked at whether percutaneous vertebroplasty is safe enough and works well enough for it to be used routinely.

To produce this guidance, NICE has:

- looked at the results of studies on the safety of percutaneous vertebroplasty and how well it works
- asked experts for their opinion
- asked the views of the organisations that speak for the healthcare professionals and the patients and carers who will be affected by the guidance.

This guidance is part of NICE's work on 'interventional procedures' (see 'Further information' on the last page).

About percutaneous vertebroplasty

Percutaneous vertebroplasty can be used to help ease pain in people with severe, painful osteoporosis who have lost height or had fractures of the spine (called vertebral compression fractures), or both. It is also used for people with painful tumours in the spine, and for those with a non-cancerous growth in the spine called a vertebral haemangioma.

Vertebral compression fractures cause pain and disability, and usually happen because of weakness in the bones caused by getting older, using medicines called steroids for a long time, or because a patient has had cancer that has spread to the bones. Most people in these groups are treated with pain-killing drugs (called analgesics), bed rest and the use of a back brace, but some people may still suffer pain and find it hard to move around.

In percutaneous vertebroplasty, a doctor injects a special bone cement into the spine to help the pain and strengthen the fracture site.

How well it works

What the studies said

The studies NICE looked at showed that most people treated with percutaneous vertebroplasty had some relief of pain. In addition, most people needed to use less medicine to control their pain. One study found that nearly all the people in their study could move around better, and that every person treated with percutaneous vertebroplasty was satisfied with the procedure and would have it again.

What the experts said

The experts' opinions on percutaneous vertebroplasty were mixed. Some believed that the studies show that the procedure works. These experts thought that percutaneous vertebroplasty could be a real benefit in the future, as people live longer and more suffer these fractures as a result of getting osteoporosis. Other experts suggested that percutaneous vertebroplasty is not needed as the fractures would get better on their own – they thought that the procedure could cause more fractures further up the spine.

Risks and possible problems

What the studies said

According to the studies, problems during or after the procedure are rare. Problems that are seen include damage to nerves or other tissues caused by the needle used to inject the cement, or by the cement moving around after it has been injected. One study found that the cement leaked into the surrounding area in around a quarter of patients, though mostly this didn't cause any problems and didn't need treatment.

What the experts said

The experts had different opinions about the risks of percutaneous vertebroplasty but believed that percutaneous vertebroplasty has very few risks when done by an experienced doctor. Some thought that paralysis of the lower body (called paraplegia) is a risk in fewer than 5 in 100 patients having this procedure. They also thought that nerve damage and infection are possible.

What has NICE decided about percutaneous vertebroplasty?

NICE has considered the evidence on percutaneous vertebroplasty. It has recommended that when doctors use percutaneous vertebroplasty, they should be sure that:

- the patient understands what is involved and agrees to the treatment, and
- the results of the procedure are monitored.

NICE has also recommended that this procedure should be performed only when there are arrangements for rapid access to a spinal surgery service in case any problems occur and that prior discussion about whether the procedure is suitable for the patient should take place between members of a specialist healthcare team that includes a spinal surgeon and a radiologist (a doctor who has specialist knowledge and training in using techniques such as X-rays, to guide narrow tubes through the blood vessels). The doctor performing percutaneous vertebroplasty must be trained and experienced in this procedure. In particular, the cement must be made up correctly to avoid any problems when it is injected.

Finally, NICE has recommended that percutaneous vertebroplasty should be used only in patients whose pain can't be relieved using the usual methods.

What NICE's decision means for you

Your doctor may have offered you percutaneous vertebroplasty. NICE has considered this procedure because it is relatively new. NICE has decided that this procedure is safe enough and works well enough for use in the NHS. Nonetheless you should understand the benefits and risks of percutaneous vertebroplasty before you agree ('consent') to it. Your doctor should discuss the benefits and risks with you. Some of these benefits and risks may be described above.

Further information

You have the right to be fully informed and to share in decision-making about the treatment you receive. You may want to discuss this guidance with the doctors and nurses looking after you.

You can visit the NICE website (www.nice.org.uk) for further information about the National Institute for Clinical Excellence and the Interventional Procedures Programme. A copy of the full guidance on percutaneous vertebroplasty is on the NICE website (www.nice.org.uk/IPG012guidance), or you can order a copy from the website or by telephoning the NHS Response Line on 0870 1555 455 and quoting reference number N0281. The evidence that NICE considered in developing this guidance is also available from the NICE website.

If you want more information on problems with the spine, a good starting point is NHS Direct, telephone 0845 46 47, or NHS Direct Online (www.nhsdirect.nhs.uk).

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