

Percutaneous electrothermal treatment of the intervertebral disc annulus for low back pain and sciatica

Information for the public

Published: 27 January 2016

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What has NICE said?

There is not much good evidence about how well percutaneous electrothermal treatment of the intervertebral disk annulus for low back pain and sciatica works, but there are no major safety concerns. It should only be used if extra care is taken to explain the risks and extra steps are put in place to record and review what happens.

More research on this procedure is needed and NICE may look at it again if more evidence is published.

What does this mean for me?

Your health professional should fully explain what is involved in having this procedure and

discuss the possible benefits and risks with you. In particular, they should explain that the procedure may not improve your symptoms and that your symptoms may flare up after treatment. You should also be told how to find more information about the procedure and about other treatment options. You should only be asked if you want this procedure after having this discussion. Your health professional should ask you if details of your procedure can be collected.

The condition

The tough outer cover of a disc is called the annulus. It can sometimes tear, allowing the soft centre to bulge through. This is called herniation, also known as 'slipped disc'. If it presses on a nerve, the slipped disc can cause pain in the back, pain in the leg (sciatica), and numbness or weakness in the legs.

Treatments include painkillers, drugs to reduce inflammation, corticosteroid injections into the affected area, physical therapy and acupuncture. If these treatments don't work and the symptoms are severe or long lasting the disc may be removed, either by open surgery or using less invasive techniques. This is called discectomy.

NICE has looked at using [percutaneous electrothermal treatment of the intervertebral disk annulus](#) as another treatment option.

[NHS Choices](#) and NICE's [information for the public about low back pain](#) may be a good place to find out more.

The procedure

This procedure is done under local anaesthesia, with the patient sedated and lying face down. It aims to relieve low back pain and sciatica by delivering heat energy to the damaged disc annulus. This stiffens the annulus and reduces the sensation of pain from nerves within it.

The damaged disc is identified by injecting contrast fluid into it, to check it is causing the symptoms (known as lumbar discography). One or 2 needles are inserted into the disc annulus using X-ray guidance. A thin flexible tube (electrode) is then passed through the needle and into the side of the disc. Once in position the damaged disc annulus is slowly heated with the electrode, usually for about 2–15 minutes, before the electrode is

removed.

Benefits and risks

When NICE looked at the evidence, it decided that there was not much good evidence about how well this procedure works. The 11 studies that NICE looked at involved a total of 2878 patients.

Generally, they showed the following benefits:

- Pain relief in some patients, lasting up to 12 months after the procedure.
- Slightly improved ability to carry out everyday tasks, in some patients.

The studies showed that the risks of percutaneous electrothermal treatment of the intervertebral disc annulus for low back pain and sciatica included:

- The tip of the needle breaking off during the procedure. In some people, the needle tip could not be removed from the disc or surrounding tissues. This did not cause any ongoing symptoms. But 1 person needed more surgery to remove the needle tip because of pain.
- Problems after the procedure including pain, burning sensation or numbness in the legs. These got better over time for most people, but some people needed more surgery. Two patients had difficulty controlling the bladder or bowels after the procedure.
- Other problems with the disc, or because of scar tissue from the procedure, that needed more surgery.

NICE was also told about the possible risk of damage to the tissues or blood vessels.

If you want to know more about the studies, see the [guidance](#). Ask your health professional to explain anything you don't understand.

Questions to ask your health professional

- What does the procedure involve?

- What are the benefits I might get?
- How good are my chances of getting those benefits? Could having the procedure make me feel worse?
- Are there alternative procedures?
- What are the risks of the procedure?
- Are the risks minor or serious? How likely are they to happen?
- What care will I need after the procedure?
- What happens if something goes wrong?
- What may happen if I don't have the procedure?

About this information

NICE [interventional procedures guidance](#) advises the NHS on the safety of a procedure and how well it works.

ISBN: 978-1-4731-1635-1

Accreditation

