

# **Keyhole treatment of a prolapsed (slipped) cervical disc by endoscope-guided laser**

*NICE 'HealthTech guidance' advises the NHS on when and how new procedures can be used in clinical practice.*

This leaflet is about when and how an endoscope-guided laser can be used in the NHS to treat people with a prolapsed (slipped) cervical disc. It explains guidance (advice) from NICE (the National Institute for Health and Clinical Excellence).

This HealthTech guidance makes recommendations on the safety of a procedure and how well it works. An interventional procedure is a test, treatment or surgery that involves a cut or puncture of the skin, or an endoscope to look inside the body, or energy sources such as X-rays, heat or ultrasound. The guidance does not cover whether or not the NHS should fund a procedure. Decisions about funding are taken by local NHS bodies (primary care trusts and hospital trusts) after considering how well the procedure works and whether it represents value for money for the NHS.

NICE has produced this guidance because the procedure is quite new. This means that there is not a lot of information yet about how well it works, how safe it is and which patients will benefit most from it. This leaflet is written to help people who have been offered this procedure to decide whether to agree (consent) to it or not. It does not describe prolapsed discs or the procedure in detail – a member of your healthcare team should also give you full information and advice about these. The leaflet includes some questions you may want to ask your doctor to help you reach a decision. Some sources of further information and support are on page 6.



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## What has NICE said?

There is not much good evidence about how well this procedure works or how safe it is. If a doctor wants to use this procedure to treat a prolapsed cervical disc, they should make sure that extra steps are taken to explain the uncertainty about how well it works, as well as the uncertainty surrounding potential risks of the procedure. This should happen before the patient agrees (or doesn't agree) to the procedure. The patient should be given this leaflet and other written information as part of the discussion. There should also be special arrangements for monitoring what happens to the patient after the procedure.

This procedure should only be carried out by spinal surgeons with special training in using lasers and in using an endoscope (a thin, flexible telescope) in the spinal canal.

NICE may review the procedure if more evidence becomes available.

## Other comments from NICE

It is unclear from the evidence to what extent laser was used instead of or as well as mechanical methods of removing prolapsed disc material.

## Keyhole treatment of a prolapsed (slipped) cervical disc by endoscope-guided laser

The medical name for this procedure is 'percutaneous endoscopic laser cervical discectomy'. The word 'percutaneous' means through the skin, 'cervical' means in the neck and a 'discectomy' is an operation to remove part or all of a disc in the spine.

*This procedure may not be the only possible treatment for a prolapsed cervical disc. Your healthcare team should talk to you about whether it is suitable for you and about any other treatment options available.*

The procedure is not described in detail here – please talk to your surgeon for a full description.

If the tough outer cover of one of the discs that act as cushions between the bones of the spine (the vertebrae) is damaged or weakened, the jelly-like material inside can bulge outwards. This is a prolapsed disc. If it presses on a nerve it can cause neck, shoulder and arm pain; and weakness and numbness.

Most people recover without an operation. They may be offered painkillers, exercises or sometimes epidural injections (which reduce inflammation of the nerves in the spine) to treat the pain. But if it remains severe for a long time, or there are problems with the nerves, the person may be offered an operation. This includes conventional surgery to remove part or all of the disc, with or without replacement of the disc with an artificial disc or graft.

This procedure is carried out with the patient under general anaesthetic. A small cut is made in the neck to insert the endoscope so the surgeon can see the disc. A laser is used to remove all or part of the disc. Cutting instruments may also be needed to remove bits of the disc so that it no longer presses on the nerve.

## What does this mean for me?

If your doctor has offered you keyhole treatment of a prolapsed (slipped) cervical disc by endoscope-guided laser, he or she should tell you that NICE has decided that the benefits and risks are uncertain. This does not mean that the procedure should not be done, but that your doctor should fully explain what is involved in having the procedure and discuss the possible benefits and risks with you. You should only be asked if you want to agree to this procedure after this discussion has taken place. You should be given written information, including this leaflet, and have the opportunity to discuss it with your doctor before making your decision.

NICE has also decided that more information is needed about this procedure. Your doctor may ask you if details of your procedure can be used to help collect more information about this procedure. Your doctor will give you more information about this.

## You may want to ask the questions below

- 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 operation?
- What happens if something goes wrong?
- What may happen if I don't have the procedure?



*You might decide to have this procedure, to have a different procedure, or not to have a procedure at all.*

## Summary of possible benefits and risks

Some of the benefits and risks seen in the studies considered by NICE are briefly described below. NICE looked at two studies on this procedure.

### How well does the procedure work?

In one study, 111 patients were assessed an average of 49 months after having the procedure on a scale that ranged from 'poor' (no improvement) to 'excellent' (no pain or restriction of activity). Of the 111 patients, 52 were rated as having an 'excellent' outcome, 37 as 'good', 9 as 'fair' and 13 as 'poor'.

As well as looking at these studies, NICE also asked expert advisers for their views. These advisers are clinical specialists in this field of medicine. They said that the main aim of the procedure is to reduce arm and neck pain.

### Risks and possible problems

In the study of 111 patients, 3 needed another operation after an average of 49 months because the disc was still pressing on the nerve or because their symptoms had got worse.

In a study of 41 patients, 2 patients had damage to a blood vessel, which happened when the instruments were inserted. One patient's disc became inflamed (discitis), causing it to collapse; this was treated by inserting a bone graft to fuse the vertebrae together.

As well as looking at these studies, NICE also asked expert advisers for their views. These advisers are clinical specialists in this field of medicine. They said that in theory the most important risk is heat damage to the nerve roots or spinal cord, which could lead to a patient's arms and legs becoming paralysed. One adviser said that there has

been nerve damage in one patient as a result of using a laser in the lower back.

### **More information about prolapsed discs**

NHS Choices ([www.nhs.uk](http://www.nhs.uk)) may be a good place to find out more. Your local patient advice and liaison service (usually known as PALS) may also be able to give you further information and support.

## About NICE

NICE produces guidance (advice) for the NHS about preventing, diagnosing and treating different medical conditions. The guidance is written by independent experts including healthcare professionals and people representing patients and carers. They consider how well an interventional procedure works and how safe it is, and ask the opinions of expert advisers. This guidance applies to the whole of the NHS in England, Wales, Scotland and Northern Ireland. Staff working in the NHS are expected to follow this guidance.

*To find out more about NICE, its work and how it reaches decisions, see [www.nice.org.uk/aboutguidance](http://www.nice.org.uk/aboutguidance)*

*This leaflet is about 'percutaneous endoscopic laser cervical discectomy'. This leaflet and the full guidance aimed at healthcare professionals are available at [www.nice.org.uk/HTG194](http://www.nice.org.uk/HTG194)*

*You can order printed copies of this leaflet from NICE publications (phone 0845 003 7783 or email [publications@nice.org.uk](mailto:publications@nice.org.uk) and quote reference N1886). The NICE website has a screen reader service called Browsealoud, which allows you to listen to our guidance. Click on the Browsealoud logo on the NICE website to use this service.*

*We encourage voluntary organisations, NHS organisations and clinicians to use text from this booklet in their own information about this procedure.*

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