

## Keyhole surgery to flush out the knee joint and remove damaged tissue to treat osteoarthritis

*NICE 'interventional procedures guidance' advises the NHS on when and how new surgical procedures or procedures that use electromagnetic radiation (such as X-rays, lasers and gamma rays) can be used.*

This leaflet is about when and how keyhole surgery can be used to flush out the knee joint and remove damaged tissue (bone or cartilage) in the NHS in England, Wales, Scotland and Northern Ireland to treat people with osteoarthritis. It explains guidance (advice) from NICE (the National Institute for Health and Clinical Excellence).

NICE has produced this guidance because there is not a lot of information about how well it works 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 osteoarthritis 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 7.

Interventional procedures guidance makes recommendations on the safety of a procedure and how well it works. 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.



### What has NICE said?

Keyhole surgery to flush out the knee joint and remove damaged tissue can be offered routinely as a treatment option for people with osteoarthritis provided that doctors are sure that:

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

Keyhole surgery to flush out the knee joint but without removing damaged tissue should not be used to treat osteoarthritis.

### Other comments from NICE

NICE only looked at using this procedure to treat osteoarthritis, not other forms of arthritis such as rheumatoid arthritis.

Another procedure called 'microfracture' may be carried out at the same time as this procedure, but NICE did not look at this.

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

### Keyhole surgery to flush out the knee joint

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

Osteoarthritis happens when the cartilage that covers the end of the bones in a joint becomes worn or damaged so that the joint becomes painful and inflamed.

This procedure is usually carried out under general anaesthetic. Small cuts are made in the knee and a camera connected to a video recorder and monitor is inserted through one of the cuts. The medical name for this keyhole surgery is arthroscopic surgery. While watching what is happening on the video monitor, the surgeon introduces fluid through one of the remaining holes. This fluid is used to flush out any loose debris. Often the surgeon will also use instruments to remove damaged tissue from the joint (this is called debridement).

Other treatments for osteoarthritis depend on how severe it is, but they include anti-inflammatory medicines, painkillers, physiotherapy and steroid injections. If these treatments don't work, a knee replacement operation may be necessary.

### **What does this mean for me?**

NICE has said that this procedure is safe enough and works well enough for use in the NHS. If your doctor thinks flushing out the knee joint and removing damaged tissue is a suitable treatment option for you, he or she should still make sure you understand the benefits and risks before asking you to agree to it.

### **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 nine studies on this procedure.

### How well does the procedure work?

One study of 180 patients compared three procedures: flushing the knee joint with fluid only, flushing and removing damaged tissue, and a 'sham procedure' which only gave the impression of having the procedure. This study showed that when the patients were checked 2 years later there was no difference between the three groups in terms of pain or how well their knees worked.

Another study found that flushing and removing damaged tissue was better at reducing pain than flushing only. Of the 40 patients treated with flushing and removal of tissue, 32 were pain free when checked a year later. Of the 36 patients who had flushing on its own, only 5 were pain free.

Another study compared flushing with injecting a drug called hyaluronic acid into the joint. Hyaluronic acid is produced naturally by the body and helps protect cartilage. When patients were checked a year later, both treatments were equally effective in reducing pain and improving the function of the knee.

Three studies looked at whether further surgery was necessary following flushing and removal of damaged tissue. One of these studies followed 121 patients and checked them after about 5 years. Twelve of the patients needed further keyhole surgery and 15 patients needed a knee replacement. In another study, after 5 years further surgery was needed on 18 out of 100 knees, including 11 knee replacements. The third study looked at 204 knees treated with this procedure. After about 7 years further surgery was needed on 47 of the knees.

The expert advisers said that it is not clear how well the procedure works, and that it should only be used on patients who have particular types of osteoarthritis.

### **Risks and possible problems**

There were not many risks or problems noted in the studies that NICE looked at. In one study, there was bleeding into the joint in 4 out of 204 procedures and the joint had to be drained with a needle. One patient in this study had a deep vein thrombosis.

The expert advisers had no major concerns about the safety of the procedure. They said that as well as deep vein thrombosis, there is also a small risk of infection.

## More information about osteoarthritis

NHS Direct online ([www.nhsdirect.nhs.uk](http://www.nhsdirect.nhs.uk)) may be a good starting point for finding out more. Your local Patient Advice and Liaison Service (PALS) may also be able to give you further advice 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. 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 and the full guidance aimed at healthcare professionals are available at [www.nice.org.uk/IPG230](http://www.nice.org.uk/IPG230)*

*You can order printed copies of this leaflet from the NHS Response Line (phone 0870 1555 455 and quote reference N1319).*

### National Institute for Health and Clinical Excellence

MidCity Place, 71 High Holborn, London, WC1V 6NA; [www.nice.org.uk](http://www.nice.org.uk)

ISBN: 978-1-4731-9209-6

© National Institute for Health and Clinical Excellence, 2007. All rights reserved. This material may be freely reproduced for educational and not-for-profit purposes. No reproduction by or for commercial organisations, or for commercial purposes, is allowed without the express written permission of the Institute.