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Single mini-incision hip replacement

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

Ordering information

You can download the following documents from www.nice.org.uk/IPG152

- this booklet
- the full guidance on this procedure.

For printed copies of the full guidance or information for the public, phone the NHS Response Line on 0870 1555 455 and quote:

- N0963 (full guidance)
- N0964 (information for the public).

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About this information

The National Institute for Health and Clinical Excellence (NICE) is the independent organisation responsible for providing national guidance on the promotion of good health and the prevention and treatment of ill health. One of NICE's roles is to produce guidance (recommendations) on whether interventional procedures are safe enough and work well enough to be used routinely in the NHS in England, Wales and Scotland.

This information describes the guidance that NICE has issued on a procedure called single mini-incision hip replacement. It is 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 single mini-incision hip replacement 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 single mini-incision hip replacement and how well it works
- asked experts for their opinions
- asked the views of the organisations that speak for the healthcare professionals and the patients and carers who will be affected by this guidance.

This guidance is part of NICE's work on 'interventional procedures' (see 'Further information' on page 10).

About the procedure

The most common reason for needing a hip replacement is osteoarthritis in the hip joint. In osteoarthritis, the protective covering of the ends of the bones in a joint becomes worn away or damaged so that eventually bone is rubbing against bone. Before someone with osteoarthritis is offered a hip replacement, they are usually offered treatments that don't involve surgery. These might include help to lose weight, painkilling and anti-inflammatory medicines, and physiotherapy. If these don't help, the person may be offered a hip replacement operation.

A hip replacement might also be needed because of damage to the joint as a result of rheumatoid arthritis, injury, bone tumours and a condition called avascular necrosis of the femoral head, where the top of the thigh bone starts to die away because its blood supply is too weak.

The standard hip replacement involves making a large opening over the hip (the opening is usually 20–30 cm long). The new procedure NICE has looked at, single mini-incision hip replacement, involves making one smaller opening of 10 cm or less. The operation is carried out using specially designed surgical instruments, and the surgeon may use X-rays and/or computer navigation to make sure they are working in the right place.

The artificial joints used are the same as those used in the standard operation. The artificial joint may be attached to the patient's bones using surgical cement, or a type of artificial joint may be used that grows together with the patient's own bone.

How well the procedure works

What the studies said

Two studies compared the single mini-incision operation with the standard operation in a total of 279 patients. In these studies, patients stayed in hospital for the same length of time after both operations. In both studies, patients who had the new operation lost less blood during surgery than those who had the standard operation. This was a 'true' difference when the results were tested statistically.

In one of these two studies, patients had roughly the same amount of pain after both types of operation and were equally able to walk in the early stages after their operation. In the other study, roughly the same numbers of patients after both types of operation had a limp or used some support to walk when they were checked 2 years after their surgery.

Five other studies compared people who had the new operation with those who had the standard hip replacement. In three out of the five studies, patients who had the new operation lost less blood during surgery than patients who had the standard operation. Four studies reported the length of time patients had to stay in hospital after their operation. This was 4–6 days for both types of hip replacement.

In one study of 135 patients, 7 out of 50 artificial hips (14%) inserted using the new procedure were either not fixed correctly or not in the correct position (14% is the same as 14 out of 100). This was less common with the standard operation, and happened in 3 out of 85 hips (4%).

One study checked what had happened in 84 patients 5 years after they'd had either the new procedure or the standard hip replacement. It found that none of the patients had needed a repeat operation to 're-do' the artificial joint.

What the experts said

The experts said that it wasn't clear whether patients who had the single mini-incision hip replacement spent less time recovering in hospital than patients who had the standard operation.

Risks and possible problems with the procedure

What the studies said

A study involving 60 patients who had either the new operation or the standard operation found that patients had the same likelihood of problems afterwards, regardless of the type of operation they had.

In two studies that followed what happened in large numbers of people who had the new operation, the most common problem was dislocation of the hip. This happened in around 1 in every 100 hip joints that were replaced. The following problems affected some patients in one of the studies:

- 5 out of 1037 hips became septic (0.5%)
- the artificial joint became loose in 3 hips out of 1037 (0.3%)
- the thigh bone became weakened following 2 out of 1037 hip replacements (0.2%)
- 1 hip out of 1037 artificial hips became fractured (0.1%).

In the second study, 2 out of 1000 patients (0.2%) developed a condition known as sciatic neuropraxia. This is where the sciatic nerve, which runs down to the buttock, back of the thigh, calf and foot, doesn't send its messages properly. One person out of 1000 needed to have the artificial joint removed because of infection, and one person needed to have the operation repeated because the artificial joint was not stable.

What the experts said

The experts said that the possible problems following the new operation included incorrect positioning of the artificial joint, dislocation, fracture, nerve problems, infection, slow healing of the opening made for the surgery, and the patient ending up with legs of different lengths.

What has NICE decided?

NICE has considered the evidence on single mini-incision hip replacement. It has recommended that when doctors use this procedure for people with damaged hips, they should be sure that:

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

NICE has also said that although there may be benefits with the new operation, such as less damage to the area around the hip, less blood loss and less pain, doctors should only offer it to patients for whom it's likely to be successful. Doctors who make this decision about suitability should have had adequate training in the new operation. The British Hip Society has been asked to produce standards for training.

There should also be special arrangements for monitoring what happens when a person has a single mini-incision hip replacement. NICE is asking doctors to send information about every patient who has the operation and what happens to them afterwards to a central store of information called the National Joint Registry (www.njrcentre.org.uk) so that the safety of the procedure and how well it works can be checked over time.

What the decision means for you

Your doctor may have offered you a single mini-incision hip replacement. NICE has considered this procedure because it is relatively new. NICE has decided that the procedure is safe enough and works well enough for use in the NHS. Nonetheless, you should understand the benefits and risks of a single mini-incision hip replacement before you agree to it. Your doctor should discuss the benefits and risks with you. Some of these may be described above.

NICE has also decided that more information is needed about single mini-incision hip replacement. So NICE has recommended that some details should be collected about every patient who has this procedure. These details will be held confidentially and will not include patients' names. The information will be used only to see how safe the procedure is and how well it works. If you decide to have a single mini-incision hip replacement, you will be asked to agree to your details being entered into an electronic database for this purpose. A clinician looking after you will fully explain the purpose of collecting the data and what details will be held. You will be asked to sign a consent form. If you do not agree to the details being entered into an electronic database, you will still be allowed to have the procedure.

Further information

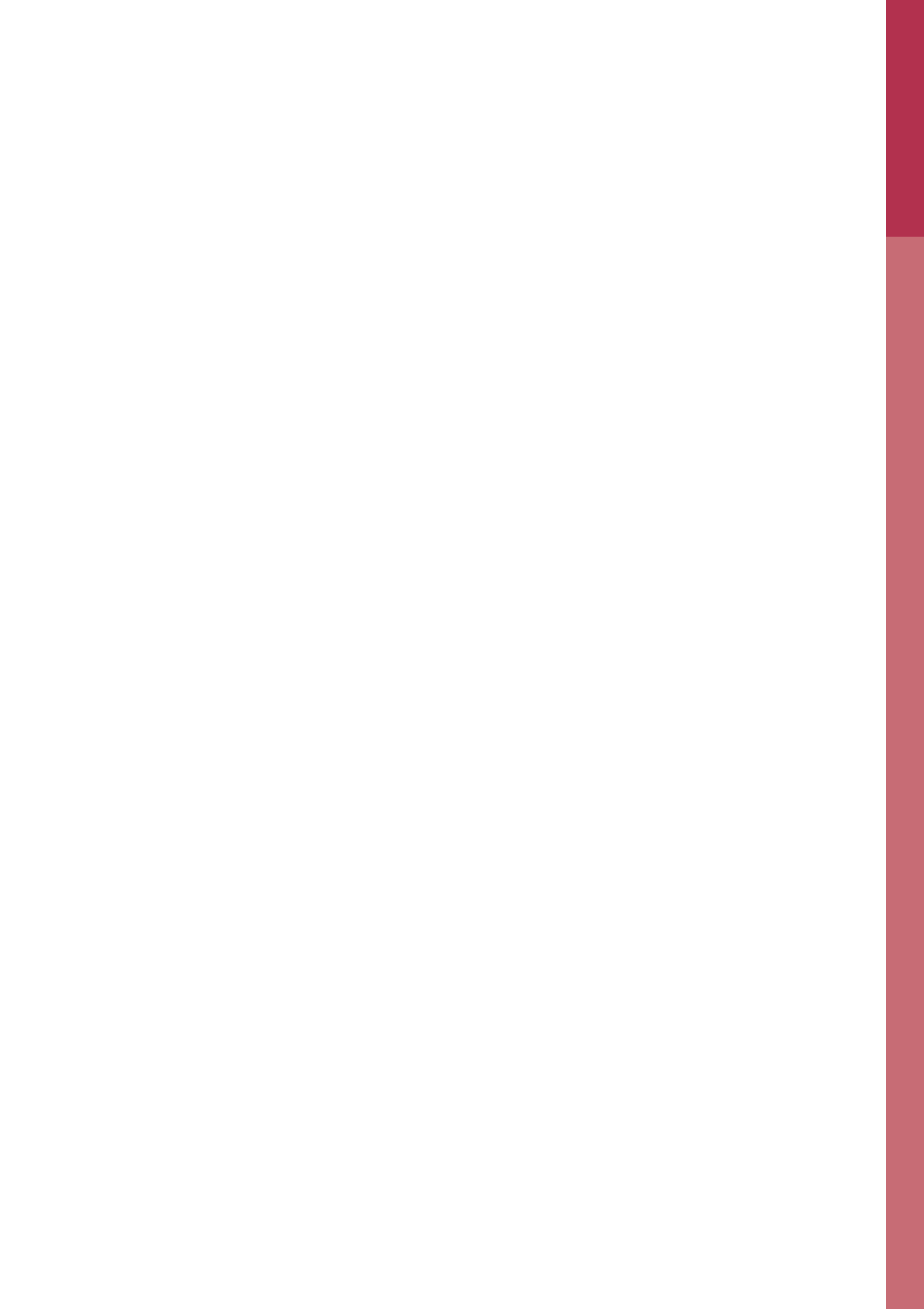
You have the right to be fully informed and to share in decision-making about the treatment you receive. You may want to discuss this guidance with the doctors and nurses looking after you.

The NICE website (www.nice.org.uk) has further information about NICE, the Interventional Procedures Programme and the full guidance on single mini-incision hip replacement that has been issued to the NHS. The evidence that NICE considered in developing this guidance is also available from the NICE website.

NICE has also issued guidance on minimally invasive two-incision surgery for total hip replacement (see www.nice.org.uk/IPG112).

If you have access to the internet, you can find more information on arthritis on the NHS Direct website (www.nhsdirect.nhs.uk).

You can also phone NHS Direct on 0845 46 47.



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