

# **Artificial metacarpophalangeal and interphalangeal joint replacement for end-stage arthritis**

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

February 2005



**Information from Interventional Procedure Guidance 110**

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### **To order copies**

Copies of this booklet can be ordered from the Department of Health Publications Order Line; telephone 0870 1555 455 and quote reference number N0808. A version in Welsh and English is also available, reference number N0809. Mae fersiwn yn Gymraeg ac yn Saesneg ar gael hefyd, rhif cyfeirnod N0809. The NICE interventional procedures guidance on which this information is based is available from the NICE website ([www.nice.org.uk/IPG110guidance](http://www.nice.org.uk/IPG110guidance)). Copies can also be obtained from the Department of Health Publications Order Line, reference number N0807.

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## 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 artificial joint replacement for otherwise untreatable arthritis in the fingers (the joints in the fingers are called the metacarpophalangeal and interphalangeal joints). This information 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 artificial joint replacement is safe enough and works well enough for it to be used routinely for the treatment of very bad arthritis in the finger joints.

To produce this guidance, NICE has:

- looked at the results of studies on the safety of artificial joint 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 artificial joint replacement in the fingers

A joint affected by arthritis is inflamed, damaged and painful. The treatments for arthritis in the fingers include anti-inflammatory medicines, painkillers and steroid injections. When the arthritis is severe, the joint is sometimes removed. Sometimes the 'gap' is replaced with tissue taken from another part of the body. Alternatively, the two bones that are left can be joined together using metal wires or screws – this is called joint fusion or arthrodesis.

The procedure NICE has looked at, which involves removing the joint and replacing it with an artificial one, is an option that's sometimes used to help with the pain when the arthritis has become very severe.

The person is usually given a general anaesthetic and the blood supply to the arm and hand is closed off temporarily. An opening is made in the finger at the position of the joint. The tendons are gently pulled aside, and the arthritic joint is removed. An artificial joint is put in its place. A splint is put on the fingers so that they are supported and kept still while the hand heals.

## How well it works

### What the studies said

In three studies, nearly all the joints that were operated on were less painful afterwards (the figures were 97% to 100% of joints).

Two studies found that people who had the artificial joints didn't find it easier to move their hands. But another study found that there was more power in nearly three-quarters of the new joints, and a greater ability to make small movements in more than three-quarters of the joints.

In one study, 18 out of 19 patients said they were satisfied with the results of the procedure when they were asked some time afterwards (3 years after having the surgery, on average). Another study asked patients after a longer time (around 6 years), and 27 out of 31 patients said they were satisfied with the results.

### What the experts said

The experts had some concerns about whether the results would be as good over a long period of time as the results of the operation in which the joint is removed and the bones pinned together (joint fusion).

## Risks and possible problems

### What the studies said

The results of over 15,000 joint replacements were looked at. The most common problems were changes in the bones surrounding the artificial joint. For example, in some people, cysts formed on the bone, whereas in other people, the bone started to break down. In total, these types of problems happened in 577 joints out of 15,556 that were operated on. Another quite common problem was a break or fracture in the artificial joint – this happened in 352 joints. The joint became loose in 114 artificial joints, and 86 joints that were operated on became infected. Out of the 15,556 artificial joints that were put in place, 143 had to be removed because of problems.

In a study that checked what had happened in patients an average of 3 years after the operation, 5 out of 69 artificial joints had fractured. In another study that checked on people an average of 6 years after their operation, 1 out of 31 joints had fractured.

## What the experts said

The experts said that possible problems after the operation included stiffness in the joint, loosening of the artificial joint, problems with tiny pieces of debris from the joint breaking off, weakening of the bone, damage to the nerves, the formation of a blood-filled swelling in the finger, inflammation around the joint caused by the silicone in the artificial joint, infection and a gradual weakening of the artificial joint.

## What has NICE decided?

NICE has considered the evidence on artificial joint replacement in the fingers. It has recommended that when doctors use it for people with severe arthritis, 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 pointed out that new types of artificial joint are being developed. It has encouraged doctors to send information about their experience with the type of joint they use to a central store of information so that people can see how well the different joints work over a long period of time.

## Other comments from NICE

NICE has pointed out that artificial joint replacement is mainly used to help with pain in people with severe arthritis in their hand.

## What the decision means for you

Your doctor may have offered you artificial joint replacement for your fingers. 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 artificial joint 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 encouraged doctors to collect information about the different types of artificial joint that are used. This information will be held confidentially and will not include patients' names. The information will be used only to see how well the joints last and whether there are any problems in the long term. If you decide to have an artificial joint put in, you may 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.

You can visit the NICE website ([www.nice.org.uk](http://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 artificial metacarpophalangeal and interphalangeal joint replacement for end-stage arthritis is on the NICE website ([www.nice.org.uk/IPG110guidance](http://www.nice.org.uk/IPG110guidance)), or you can order a copy from the website or by telephoning the Department of Health Publications Order Line on 0870 1555 455 and quoting reference number N0807. The evidence that NICE considered in developing this guidance is also available from the NICE website.

If you want more information on arthritis, a good starting point is NHS Direct, telephone 0845 4647, or NHS Direct Online ([www.nhsdirect.nhs.uk](http://www.nhsdirect.nhs.uk)).

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