

Wrist joint replacement

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 wrist joint replacement can be used in the NHS to treat people with wrist arthritis. 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 wrist arthritis 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?

Although there is some evidence to say that this procedure relieves pain, the evidence is based only on small numbers of patients. In addition, there is not a lot of evidence about how well it works in the long term. The procedure also carries the risks of other types of joint replacement surgery such as infection. If a doctor wants to carry out a wrist joint replacement, they should make sure that extra steps are taken to explain the possible alternatives to wrist joint replacement surgery and the uncertainty about how well it works in the long term. They should also explain that further operations may be needed and the potential risks of the procedure, including the risk of the wrist joints fusing together. 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.

Wrist joint replacement should only be done on carefully selected patients by surgeons with appropriate specialist expertise.

Further information on the safety of the procedure and how well it works would be helpful. NICE may look at this procedure again if more information becomes available.

Other comments from NICE

There was evidence about several different wrist implants, some of which are no longer available. The design of the wrist implant is continuing to evolve. Most of the evidence available was for patients with rheumatoid arthritis. A database called the National Joint register will allow doctors to collect information about the procedure.

Treating wrist arthritis by implanting an artificial wrist

The medical name for this procedure is 'total wrist replacement'.

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

Wrist arthritis can be caused by rheumatoid arthritis, osteoarthritis, trauma or a blood or tissue infection (sepsis). It can be painful, and patients may also experience stiffness and swelling in the joint.

The procedure aims to create a stable wrist joint that is free from pain and that will give the patient a range of movement for carrying out everyday tasks.

The procedure can be carried out under general or regional anaesthetic. The surgeon makes an incision on the wrist and removes some of the wrist bone. The artificial parts of the wrist are then fixed into the remaining bone. X-rays can be used to check that they are in the right place. After surgery the wrist may be secured with a splint for a time to help it heal. This can be followed by exercises to help the new wrist to work properly.

What does this mean for me?

If your doctor has offered you total wrist replacement for arthritis, he or she should tell you that NICE has decided that although the procedure relieves pain, there are uncertainties about how well it works in the long term. 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 seven studies on this procedure.

How well does the procedure work?

A study of 19 patients reported an improvement in wrist function and symptoms after 1 year. Two other studies, involving a total of 57 patients, found that wrist movement had improved after 20 months or 4 years. A study of 51 patients found no difference in wrist function in patients with the artificial wrist joint and those who had had their wrist fused surgically.

A study of 25 patients reported a reduction in pain 47 months after surgery. Of these, 18 patients had no pain and 5 had moderate pain; 2

patients said their pain was severe. Another study (of 25 patients) reported that pain was reduced after having had the artificial wrist joint.

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 success of the procedure can be assessed by looking at long-term pain relief, wrist movement and how long the artificial wrist joint could work for.

Risks and possible problems

In the study of 51 patients, of the 27 who had had the artificial wrist joint, six had problems with wound healing, four had an unstable joint and one had 'pins and needles' that lasted for a long time. None of them had a fracture related to the artificial wrist joint.

Complications with the implant or errors in implantation occurred in 16 out of 77 patients (three studies) and in 6 out of 22 wrists.

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 possible risks with this procedure include infection; dislocation, loosening and stiffness of the joint; and problems with the nerves and blood supply around the new wrist. Other risks could also include tendon rupture, fracture around the new wrist and pain.

More information about wrist arthritis

[NHS Direct online](#) 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. 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/about_guidance

This leaflet is about 'total wrist replacement'. This leaflet and the full guidance aimed at healthcare professionals are also available at www.nice.org.uk/HTG173

You can order printed copies of this leaflet from NICE publications (phone 0845 003 7783 or email publications@nice.org.uk and quote reference N1653).

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

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