

# Arthroscopic knee washout, with or without debridement, for the treatment of osteoarthritis

Interventional procedures guidance

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[nice.org.uk/guidance/ipg230](https://www.nice.org.uk/guidance/ipg230)

## Your responsibility

This guidance represents the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, healthcare professionals are expected to take this guidance fully into account. However, the guidance does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Commissioners and/or providers have a responsibility to implement the guidance, in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity, and foster good relations. Nothing in this guidance should be interpreted in a way that would be inconsistent with compliance with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

## 1 Guidance

- 1.1 Evidence on the safety and efficacy of arthroscopic knee washout with debridement for the treatment of osteoarthritis is adequate to support the use of this procedure provided that normal arrangements are in place for consent, audit and clinical governance.

- 1.2 Current evidence suggests that arthroscopic knee washout alone should not be used as a treatment for osteoarthritis because it cannot demonstrate clinically useful benefit in the short or long term.

## 2 The procedure

### 2.1 *Indications*

- 2.1.1 Arthroscopic knee washout, with or without debridement, is used to treat osteoarthritis of the knee. Osteoarthritis of the knee is the result of progressive degeneration of the cartilage of the joint surface.
- 2.1.2 Treatment options depend on the severity of the osteoarthritis. The condition is usually chronic, and patients may have several treatment strategies applied at different stages. Conservative treatments include medication to relieve pain and inflammation, and physiotherapy. If there is a knee-joint effusion, fluid around the knee may be aspirated with a needle (arthrocentesis). Corticosteroids or hyaluronic acid are sometimes injected into the knee joint. If these treatments are ineffective, a knee replacement operation may be necessary.

### 2.2 *Outline of the procedure*

- 2.2.1 Arthroscopic washout (lavage) of the knee is usually performed under general anaesthesia. A fiberoptic telescope (arthroscope) attached to a video camera is inserted through a small incision and saline is introduced via an arthroscopic cannula to wash out the joint. Washout expels any loose debris through the cannula. Debridement involves using instruments to remove damaged cartilage or bone, and this is often performed at the same time as washout.
- 2.2.2 It is difficult to predict before arthroscopic washout which patients will have lesions suitable for debridement and there is very little evidence to guide selection.

### 2.3 *Efficacy*

- 2.3.1 One randomised controlled trial (RCT) of 180 patients compared arthroscopic lavage alone, arthroscopic debridement and a sham procedure (simulated

arthroscopy) with each other. The trial showed no significant differences in terms of pain relief or knee function at 2 years. A second RCT comparing debridement with washout alone reported that 80% (32/40) of patients in the debridement group were pain-free at 1 year, compared with 14% (5/36) of patients in the washout group ( $p = 0.05$ ). A third RCT of 90 patients reported that pain relief at 1 year was significantly better in patients treated with 3-litre washout than in those treated with 0.25-litre washout ( $p = 0.02$ ). However, there was no significant difference between the groups in terms of joint stiffness or function. An RCT of 32 patients found no significant difference between arthroscopic and closed-needle washout in terms of clinical or functional outcomes at 12 months. Another RCT of 38 patients comparing hyaluronic acid injections with arthroscopic washout reported no significant differences in pain or function at 1 year.

2.3.2 In the following three case series, patients were treated with washout with the intention of carrying out debridement. In one case series of 121 patients, 10% (12/121) required repeat arthroscopy and 12% (15/121) required knee replacement after a follow-up of 4–6 years. In another case series, 18% (18/100) of knees required further surgery after 5 years' follow-up (4 osteotomies, 3 unicompartmental arthroplasties and 11 total knee replacements). A third case series reported that 23% (47/204) of knees required further surgery, which included 25 joint arthroplasties, after a mean follow-up of 7.4 years. For more details, refer to the 'Sources of evidence' section.

2.3.3 The Specialist Advisers stated that there is uncertainty about the efficacy of this procedure. They noted that patient selection is important: for example, patients with early osteoarthritic changes and those with large effusions are among those most likely to benefit. They listed the key efficacy outcomes as relief of pain and reduction of mechanical symptoms.

## 2.4 *Safety*

2.4.1 Few complications were reported in the studies. In one case series of 204 patients, haemarthrosis requiring aspiration occurred after 2% (4/204) of procedures and there was one case of deep venous thrombosis. For more details, refer to the 'Sources of evidence' section.

2.4.2 The Specialist Advisers did not express any major concerns about safety. They stated that theoretical adverse events include a small risk of infection and of venous thromboembolism.

## 2.5 *Other comments*

2.5.1 The use of this procedure in the treatment of rheumatoid arthritis was not considered.

2.5.2 It was noted that the microfracture technique may be used as an adjunct to this procedure but evidence relating to this was not considered.

## 3 Further information

3.1 The Institute has published interventional procedures guidance on [mini-incision surgery for total knee replacement](#) and is developing a clinical guideline on osteoarthritis [Now published as '[Care and management of osteoarthritis in adults](#)'].

Andrew Dillon  
Chief Executive  
August 2007

## *Sources of evidence*

The evidence considered by the Interventional Procedures Advisory Committee is described in the following document.

['Interventional procedure overview of arthroscopic knee washout, with or without debridement, for the treatment of osteoarthritis'](#), September 2006.

## *Information for patients*

NICE has produced [information describing its guidance on this procedure for patients and their carers](#) ('Understanding NICE guidance'). It explains the nature of the procedure and the decision made, and has been written with patient consent in mind.

## 4 Further NICE recommendations on the treatment of osteoarthritis

Further recommendations have been made as part of the clinical guideline on osteoarthritis published in February 2008, as follows:

*Referral for arthroscopic lavage and debridement should not be offered as part of treatment for osteoarthritis, unless the person has knee osteoarthritis with a clear history of mechanical locking (not gelling, 'giving way' or X-ray evidence of loose bodies).*

Clinical and cost-effectiveness evidence was reviewed in the development of this guideline which has led to this more specific recommendation on the indication for which arthroscopic lavage and debridement is judged to be clinically and cost-effective. More information is [available](#).

The IP guidance on arthroscopic knee washout, with or without debridement, for the treatment of osteoarthritis remains current, and should be read in conjunction with the clinical guideline.

## 5 About this guidance

NICE interventional procedure guidance makes recommendations on the safety and efficacy of the procedure. It does not cover whether or not the NHS should fund a procedure. Funding decisions are taken by local NHS bodies after considering the clinical effectiveness of the procedure and whether it represents value for money for the NHS. It is for healthcare professionals and people using the NHS in England, Wales, Scotland and Northern Ireland, and is endorsed by Healthcare Improvement Scotland for implementation by NHSScotland.

This guidance was developed using the NICE [interventional procedure guidance](#) process.

We have produced a [summary of this guidance for patients and carers](#). Information about the evidence it is based on is also [available](#).

### Changes since publication

14 January 2012: minor maintenance.

### Your responsibility

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exercising their clinical judgement. This guidance does not, however, override the individual responsibility of healthcare professionals to make appropriate decisions in the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Implementation of this guidance is the responsibility of local commissioners and/or providers. Commissioners and providers are reminded that it is their responsibility to implement the guidance, in their local context, in light of their duties to avoid unlawful discrimination and to have regard to promoting equality of opportunity. Nothing in this guidance should be interpreted in a way which would be inconsistent with compliance with those duties.

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## *Endorsing organisation*

This guidance has been endorsed by [Healthcare Improvement Scotland](#).