

# Selective peripheral denervation for cervical dystonia

Interventional procedures guidance

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[nice.org.uk/guidance/ipg80](https://www.nice.org.uk/guidance/ipg80)

## 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 Current evidence on the safety and efficacy of selective peripheral denervation for cervical dystonia appears adequate to support the use of this procedure provided that the normal arrangements are in place for consent, audit and clinical governance.

- 1.2 The procedure should be performed by a multidisciplinary team in a specialist neurosurgical unit.
- 1.3 Patient selection for this procedure is important. Patients should be offered the procedure only when their disease has become refractory to best medical treatment.

## 2 The procedure

### 2.1 *Indications*

- 2.1.1 Cervical dystonia is a condition in which the muscles of the neck contract painfully and cause twisting of the head. The head may be pulled backwards (retrocollis), forwards (anterocollis) or to the side (torticollis), depending on which muscle groups are affected. This muscle spasm may occur intermittently or continuously. The cause of cervical dystonia is not known. In children, it is sometimes associated with congenital abnormalities of the shape of the head or of the spine, but it may occur at any age. Cervical dystonia may persist for several years, or sometimes for life. Some patients recover spontaneously.
- 2.1.2 Standard treatment for cervical dystonia includes physiotherapy, drugs to reduce spasm, injections of botulinum toxin, and brain surgery. Selective peripheral denervation may be an alternative, especially for people who have not responded to other treatments.

### 2.2 *Outline of the procedure*

- 2.2.1 Selective peripheral denervation is a surgical procedure that varies according to the muscle groups affected. It is performed under general anaesthetic and involves cutting, through a skin incision, the nerves that supply the affected muscles. Sometimes the muscles themselves may be divided.

### 2.3 *Efficacy*

- 2.3.1 The evidence was limited to one systematic review and several case series studies. The review found no controlled studies and no reliable evidence to compare the procedure with other treatments. Two of the larger case series studies found 'very good to excellent' results in 88% (228/260 and 182/207) of

patients at follow-up. However, the time to follow-up and how these outcomes were assessed were not specified in either of these two studies. For more details, refer to the Sources of evidence section.

- 2.3.2 One Specialist Advisor noted that careful patient selection should improve the efficacy of the procedure.

## 2.4 *Safety*

- 2.4.1 The largest case series study identified reported the following complications: occasional tic-like pain (1%, 3/260); tonsillar abscess (0.4%, 1/260); transient swelling of the neck in a few patients (number not specified); and pins and needles or sensation of tightness or fullness in a few patients (number not specified). For more details, refer to the Sources of evidence section.

- 2.4.2 The Specialist Advisors listed potential adverse events as difficulty in swallowing, as well as the usual potential complications of surgery, such as infection and haemorrhage.

## 2.5 *Other comments*

- 2.5.1 It was noted from the evidence that almost all patients suffered some sensory loss.
- 2.5.2 There was good long-term follow-up.

Andrew Dillon  
Chief Executive  
August 2004

## 3 Further information

### *Sources of evidence*

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

['Interventional procedure overview of selective peripheral denervation for cervical dystonia'](#), December 2002.

## *Information for patients*

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

## 4 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

26 January 2012: minor maintenance.

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## *Endorsing organisation*

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