

Targeted muscle reinnervation for managing limb amputation pain

Information for the public

Published: 12 June 2025

www.nice.org.uk

Treating problematic pain after limb amputation

This procedure can be used to treat problematic pain that has developed after limb amputation. This is because there are limited treatment options, and evidence suggests that doing this procedure after limb amputation (secondary procedure) can reduce pain and there are no major safety concerns.

Preventing problematic pain after limb amputation

This procedure can only be done as part of a research study to prevent problematic pain from developing after limb amputation. This is because there is not enough evidence to be sure how well this procedure works when it is done at the same time as limb amputation (primary procedure).

Your healthcare professional should talk to you about the research.

About this procedure

When all or part of an arm or a leg is surgically removed (limb amputation), nerves at the end of the limb are cut. This often causes residual limb pain or phantom limb pain where the removed part of the limb was. The pain can be difficult to treat with standard pain relief and sometimes does not go away even with treatment (problematic pain). Targeted muscle reinnervation involves rerouting the nerves that were cut, by attaching them to other nerves in nearby muscles (reinnervation). The aim of the procedure is to manage pain after limb amputation.

Is this procedure right for me?

You should be included in [making decisions about your care](#).

Your healthcare professionals should explain the risks and benefits of this procedure and how it is done. They should discuss your options and listen carefully to your views and concerns. They should offer you more information about the procedure. Your family or carers can be involved if you want or need them to be.

You will be asked to decide whether you agree (consent) to have the procedure. Find out more about [giving consent to treatment on the NHS website](#).

Some questions to think about

- How many appointments will I need?
- What are the possible benefits? How likely am I to get them?
- What are the risks or side effects? How likely are they?
- Will I have to stay in hospital?
- What happens if it does not work or something goes wrong?
- What happens if I do not want the procedure?
- Are other treatments available?

Information and support

The [NHS webpage on amputation](#) may be a good place to find out more.

The [NHS website has information about NHS hospital services](#) and [referrals for specialist care](#).

- [NICE's information on HealthTech guidance](#) explains what HealthTech is and how we assess it.
- [NICE's information on HealthTech recommendations](#) explains the types of recommendation we make.

[Blesma, The Limbless Veterans](#) (0208 590 1142) can also give you advice and support.

You can also get support from your local [Healthwatch](#).

ISBN: 978-1-4731-9022-1