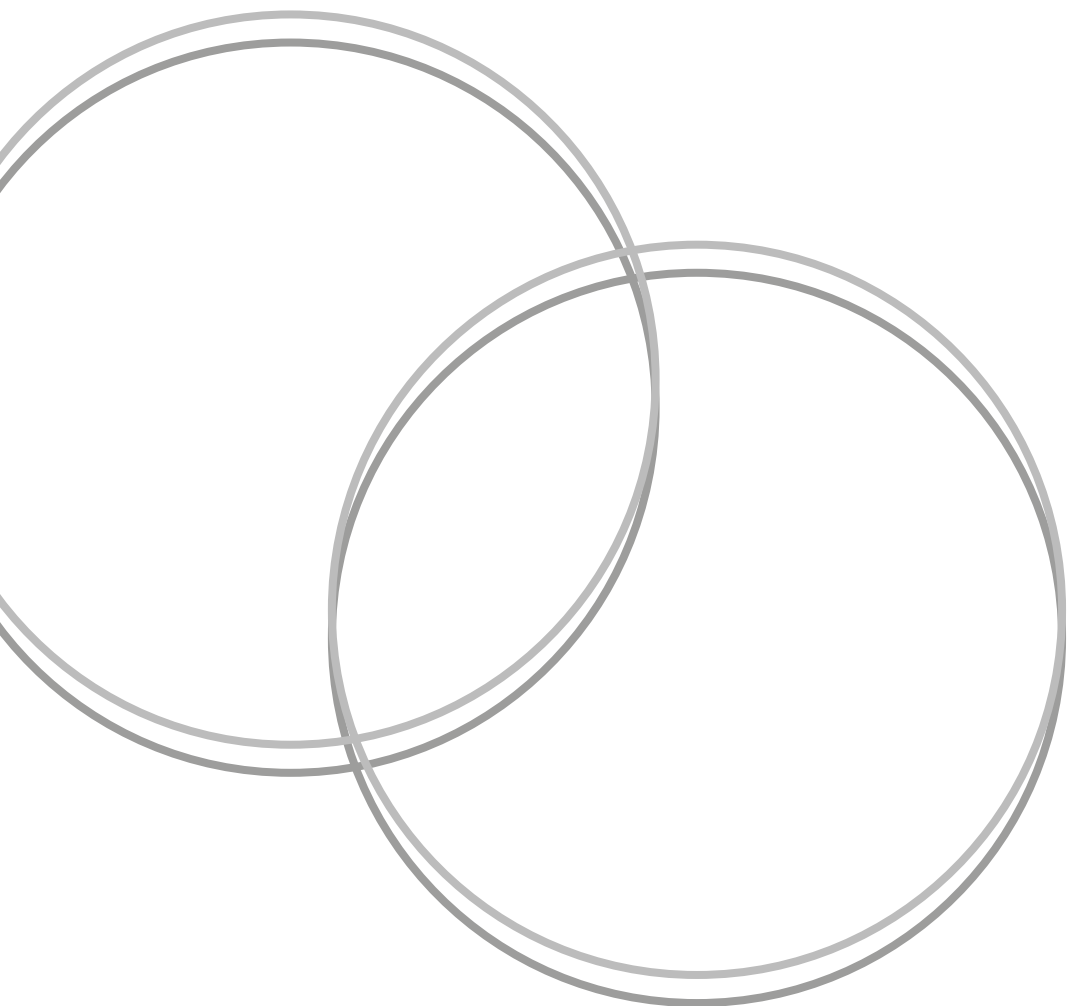




Oxford University Hospitals  
NHS Foundation Trust

# Cryoneurolysis for Spasticity

**Information for patients**





## **Who is this leaflet for?**

You have been given this leaflet as you have been offered a procedure called Cryoneurolysis to treat your spasticity.

## **What is spasticity?**

Spasticity can develop after the brain or the nerves in your spine are damaged. It is experienced as involuntary tight or stiff muscles. Sometimes, spasticity in a muscle can help a person to do something. If it is normally difficult for a person to stand up, spasticity can make their legs feel stronger. However, it can also lead to problems such as pain or difficulty carrying out daily tasks, such as walking, washing or dressing.

## **What is Cryoneurolysis?**

Cryoneurolysis is a new technique used to manage spasticity and pain. It involves controlled cooling through the use of highly pressurised gas (nitrous oxide) to create an ice ball that freezes target nerves and thereby reduces spasticity.

## **How is the treatment carried out?**

The clinical team will use ultrasound and nerve stimulation to identify the target nerve. Once the nerve is identified, the doctor uses a specialised device that contains the highly pressurised gas and has a needle on the end that cools the nerve to a very low temperature, around  $-40^{\circ}\text{C}$ . This freezing process causes the ice ball to form directly at the site of the target nerve. At this temperature only the nerve is damaged and stops working. It does not affect the function of surrounding tissues. Stopping the nerve from working results in a significant and immediate reduction in spasticity.

## **How long do the effects last?**

The length of time is variable between patients, but the effects can last for at least 6 months but for many patients they can last years. The nerve will grow back in 3 to 9 months, but research suggests spasticity commonly does not return to the same severity.

## **Are there side effects from the Cryoneurolysis procedure?**

While Cryoneurolysis is generally safe and well tolerated, as with any medical intervention there can be side effects. These may include pain during the procedure (you may be asked to take specific pain relief on the morning of the procedure), infection, bleeding or bruising at the insertion site, numbness in the treated area, nerve pain, or weakness.

Some patients experience persisting pain after the procedure for which they may need to be prescribed specific pain medications. If it occurs, pain usually starts within a few days of the procedure and commonly settles within a few weeks. It responds well to pain medications. The clinical team at OCE will work with you and your GP on selecting the right pain medication, if required.

## **Cryoneurolysis and blood thinning medicine**

If you are taking warfarin, your INR will need to be in the therapeutic range (usually 2.0 to 3.0). Please make sure you have your INR checked by your GP no longer than one week before the appointment. You should bring the result to your clinic appointment. Please continue to take warfarin as usual.

If you are taking any other blood thinning medicine, such as rivaroxaban, apixaban or dabigatran, please do not stop taking these.

Please speak to the OCE Clinical Team if you are worried about the procedure or if you have any questions.

## **Contact details for more information and advice:**

### **OCE Spasticity Team**

Telephone: 01865 737 451

(Monday to Friday, 8.30am to 4.30pm)





## Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

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Oxford University Hospitals NHS Foundation Trust  
[www.ouh.nhs.uk/information](http://www.ouh.nhs.uk/information)



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