

Department of Neurosciences

Occipital Nerve Stimulation

Preparing for your operation

Information for patients



We have seen you in clinic as you have had a headache for a long period of time. Occipital Nerve Stimulation has been recommended as a treatment for your headache.

This leaflet tells you about this treatment. It gives you the sort of information you might need to decide if this treatment is the right thing for you.

If there is anything else you wish to know about this treatment please contact us (telephone numbers are at the end of this leaflet).

What is neuralgia?

Neuralgia is type of pain that comes from problems with signals from the nerves. There are various types of neuralgia, such as migraine, cluster headache and occipital neuralgia (pain and discomfort in the upper neck and head).

Neuralgia is different to the common types of pain, which that are due to an injury, burn, or pressure, etc.

Traditional painkillers such as paracetamol, anti-inflammatories (e.g. ibuprofen), codeine and morphine may help, but often do not help very much. However, neuralgias are often eased by antidepressant or anti-epileptic medicines, from an action that is separate to how they treat depression and epilepsy. Other pain relieving techniques are sometimes used if these are not effective, such as local anaesthetic injections, nerve blocks and surgery.

Occipital Nerve Stimulation (ONS)

ONS uses a medical device system which is implanted in the back of your head, under your skin. The system sends mild electrical impulses through a lead which is implanted in the back of your head, near to the branches of the nerves. It is powered by a battery (usually about the size of a matchbox), which is implanted under the skin on your upper chest.

The electrical impulses block pain signals from travelling to your brain. This creates a comfortable tingling sensation or can even block the feeling of pain completely.

This therapy is reversible, as it does not cause permanent changes to the nerves.

What are the benefits of ONS?

Typically, people who have success with ONS may experience 80% blockage of their area of pain and greater than 50% pain relief. In time, this can improve your comfort when carrying out every day general activities.

Your surgeon can use occipital nerve stimulation to help to reduce your symptoms, but it will not cure the cause of the pain.

Does ONS completely eliminate pain?

ONS does not cure the source of the pain, but can help to block the pain signals from reaching your brain. Pain reduction varies from person to person, with most people experiencing greater than 50% reduction in pain.

ONS requires a strong commitment to effectively control pain. You will need to learn to operate the equipment and take part in prescribed activities, which will help make the treatment work for you.

Preparing for the operation

We will give you some questionnaires and charts to complete. We will also refer you to our Neuropsychologist, who will help the team assess your suitability for this therapy.

Your case will be then discussed in the Multidisciplinary Meeting. If the assessments and tests show that you would benefit from ONS we will discuss this with you and arrange a surgery date.

Around 2-4 weeks before your surgery you will need to come to the outpatient department for a pre-operative assessment. We will take details of your medical history and blood samples. This is to make sure that you are well enough to have the operation.

You will also be given information about when to stop eating and drinking before the operation and whether you need to stop certain medicines before you come in for the procedure.

How is the procedure carried out?

You will be admitted to the Neurosciences Ward on the morning of surgery. You will be in hospital for between 1-2 nights, depending on how you feel after the surgery.

The procedure is carried out in the operating theatre, with you lying on your side. It is done in one stage, which takes about an hour.

You will be given a general anaesthetic, which will mean you are asleep during the procedure. You will also have some local anaesthetic injected around the area where we implant the equipment and battery. This will keep the area numb after the procedure.

The surgeon will make a 3cm cut about 8cm up from the base of your neck, on the back of your head. They will insert the electrodes into the back of your head, using X-rays to make sure the leads are in the correct position. The leads are secured in place with stitches.

The surgeon will then create a 'pocket' in front of the muscle on the left or right of your upper chest, under your collarbone. The battery pack will be inserted and connected to the leads, which will run under your skin from the back of your head.

After surgery, you will be given some painkillers (either liquid or tablets) to help with any discomfort around the wounds.

Complications

As with all types of surgery, there is a risk of complications. These include:

- infection in the area of the implanted leads or battery
- bleeding from wounds
- failure to relieve pain or an increase in pain
- no stimulation or intermittent stimulation
- headache
- allergic reaction to drugs given during the procedure
- stimulation of the wrong area
- stimulator device failure.

Your surgeon and anaesthetist will discuss these risks in more detail with you, as well as any risks which are specific to you.

Discharge and follow-up

We will see you on the ward two weeks after surgery to remove your stitches and set up the stimulator.

You will be given a patient controller to use to adjust your own settings. We will also explain the rechargeable system, how to charge it and when. We will talk you through the instructions and will give you written advice, to make sure you can use the equipment when you return home.

You will be able to go back to work when you feel ready to do so. This is likely to be four weeks after the operation, but depends on your occupation.

You can drive when you are able to freely turn your head to the side without any restrictions; this will usually be a couple of weeks after the operation.

You will receive a discharge information booklet before you go

home which contains more detailed information about your recovery.

We will keep in close contact with you once you are discharged, to monitor your progress. Your future appointments will be agreed at the first two week appointment with your Nurse Practitioner.

The device is rechargeable and lasts 9 years before it will need replacing.

Questions or further information

Please contact us if you have any questions or need any further information.

Advanced Nurse Practitioners – Pain Neuromodulation

Tel: **01865 231 874**

(Monday to Friday, 8.00am to 4.00pm)

Personal Assistant to Nurse Practitioners

Tel: **01865 572 466**

(Monday to Friday, 8.00am to 4.00pm)

Departmental address

Department of Neurosciences

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If you have a specific requirement, need an interpreter, a document in Easy Read, another language, large print, Braille or audio version, please call **01865 221 473** or email **PALSJR@ouh.nhs.uk**

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