

Vagus Nerve Stimulation (VNS) Implant

This leaflet gives information for patients who are undergoing a VNS Implant. Your Neurologist has referred you to the Otolaryngologist (head and neck/ ENT specialist) to undergo this procedure. This information is to be used in conjunction with the information you received from your Neurologist.

Pre-operative preparation

You will be asked to attend the pre-admission assessment clinic 1-6 weeks prior to admission to ensure you are fit for surgery. You will be seen in the pre-admission clinic by the nurse for any necessary pre-operative tests, which may include; blood tests, cardiogram (ECG) and a chest x-ray. You will be admitted on the day of surgery unless there are any medical reasons which may require you to be admitted the day before the operation. Although most patients will go home on the day of the procedure, occasionally some patients may require an overnight stay. Please make sure you bring your anticonvulsant medication with you and take normal doses of medicines up until the time of surgery unless you are told not to do so.

What is VNS Implant?

VNS Implant stands for Vagus Nerve Stimulation Implant. It uses a small medical device to send electrical impulses to the left vagus nerve in the neck. Those electrical impulses are then sent from the vagus nerve to the brain and help prevent the electrical irregularities that cause seizures.

What is the Vagus Nerve?

The Vagus nerve is a major communications link between the brain and the body. It sends sensory and motor information from the brain to the body and the body to the brain. There is one nerve on each side of the body. For VNS Implant the left vagus nerve is stimulated.

What does the device look like?

It is a small pacemaker-like medical device (the pulse generator) that sends small electrical pulses to the left vagus nerve in the neck via a lead and electrodes.

The Procedure

The operation is performed under a general anaesthetic. You will have two small incisions – one in the left side of your neck – for the electrodes and the other in your upper left chest- for the pulse generator (implant).

If the operation was for a battery change the implant is replaced. This generally happens every 5-8 years depending on stimulation parameters. The implant is then connected to the old electrodes.

After the Procedure

You may feel some discomfort where the incisions have been made. This will only last for a few days and simple painkillers such as paracetamol and ibuprofen should be suitable to relieve this discomfort. Please bring paracetamol and ibuprofen with you on the day of your operation together with any regular prescribed medication you take. You may notice the implant in your chest but it should not cause you any problems. You will be kept on the ward for a minimum of 4 hours after your operation for observation. You will see your Neurologist 2-3 weeks following the procedure where the implant will be activated.

If the operation was for a replacement implant your neurologist will try to activate the implant prior to your discharge from hospital.

Risk and complications

During the VNS Implant procedure - there is a small risk of serious bleeding and that the test signal sent to the vagus nerve may slow the heart down or cause a temporary pause in the heart's electrical activity – these complications are very rare. Both in Norwich and in the other centres around the world if these problems have occurred they have been solved there and then in the operating theatre.

After the VNS Implant procedure has been completed the possible risks and complications include;

- Temporary hoarseness/changes in voice tone.
- Cough.
- Tickling in throat.
- Shortness of breath.
- Bleeding.
- Infection.

Action if complications arise

The most likely problem causing you to seek help is bleeding into the area where the implant is attached to the vagus nerve in the neck. If the bleeding is coming out through the skin apply pressure and come to the hospital. If your neck begins to swell up or your breathing is affected go immediately to the nearest hospital - if time permits call the hospital switchboard 01603 286286 and ask to be connected to the ENT registrar on call - if not go directly to the nearest A&E by car or ambulance. The same contact arrangements should be used for complications other than bleeding.

Useful contacts for further information

If you have any queries prior to the procedure, please contact the Day Procedure Unit on **01603 286008** (Monday-Friday 07:00 - 22:00, Saturday 07:00 – 20:00, CLOSED Sunday).

For help giving up Smoking: contact Smokefree Norfolk local freephone 0800 0854 113 or www.smokefreenorfolk.nhs.uk or email smokefreenorfolk@nchc.nhs.uk

VNS Therapy
Web address: www.VNSTherapy.co.uk
The National Society for Epilepsy
Chesham Lane
Chalfont St. Peter
Bucks SL9 0RJ
Tel: 01494 601 400
Web address: www.epilepsynse.org.uk

British Association of Day Surgery
35-43 Lincolns Inn Fields
London
WC2A 3PE
Tel: 0207 9730308
Web address: www.daysurgeryuk.org