

Occipital Nerve Stimulation for Neck and Headache

Spinal cord stimulation therapy has been used for over 30 years to treat pain. Occipital nerve stimulation (ONS) uses the same technology to deliver mild electrical impulses to one or more of the occipital nerves located just under the skin at the back of the head to produce a gentle tingling feeling (paraesthesia) to relieve your pain. Although stimulation may reduce your pain, it does not cure or eliminate the cause of your pain. A big advantage of ONS is that it is usually a reversible non-destructive procedure. The trial result is the best predictor of the 3 month outcome which is the best indicator of the result at 5 years and beyond.

INDICATIONS:

Good candidates for ONS include people with occipital neuralgia who have obtained short term pain relief from occipital nerve blocks and those who have been diagnosed with chronic migraine with disabling headaches lasting more than 4 hours, on more than 15 days per month unresponsive to other treatments. ONS helps people become more active, have a better quality of life and reduce dependence on medications and other health care.

RISKS:

Common to all procedures there is a chance of infection, blood clots in legs and lungs, allergic reactions, bleeding, heavy scarring (keloid) and even death. The following problems may occur: worse pain, no pain relief, nerve damage, numbness, unwanted or inadequate stimulation, equipment failure or lead migration needing revision, and serious infection that may require system removal. Drug withdrawal symptoms may occur whilst reducing/stopping morphine-like pain killers.

PREPARATION:

Please read the information provided, be aware of the benefits, limitations, risks of the procedure and ensure your questions and concerns have been answered.

Please have your teeth checked by a dentist and any necessary work done BEFORE your surgery.

Ladies if you may be pregnant, please tell your doctor ASAP.

Please have nothing to eat for 6 hours and nothing to drink for 2 hours before the procedure.

Please take your normal medications with a sip of water.

Please obtain specific instructions, if you are taking 'blood thinners' (eg warfarin or clopidogrel), diabetic tablets or insulin.

PROCEDURE:

The procedure is usually done in two stages with a trial, followed if successful, by the implantation of a permanent system. A small needle may be placed into a vein in your arm. You will be taken to the operating theatre. You will be placed face down on the operating table, the target area will be cleaned with antiseptic and covered with sterile drapes (which you must not touch).

After local anaesthetic is injected, using fluoroscopic guidance, one or more temporary stimulating leads will be positioned in the painful area(s). The leads will be tunnelled to a convenient location and secured to skin.

During the trial stimulation please tell us where you feel the tingling. We will consider the trial successful if stimulation improves blood flow, sleep, activity, sitting, standing and walking tolerances, reduces pain and medication usage.

After a successful trial, several weeks later permanent leads will be inserted and connected by wires running under your skin to a surgically implanted rechargeable neurostimulator also placed under the skin. The location of which depends on your area of pain, body size and type of device.

DURING THE TRIAL/SCREENING PERIOD:

You will be encouraged to have day leave, go home and do your normal activities to 'road test' the ONS for pain relief

It is however important to AVOID over activity and extreme neck movements.

DO NOT shower (you may 'dry wash' the essentials).

POST IMPLANTATION:

After implantation surgery the neurostimulator is programmed by a qualified technician to control your pain. When you go home you will take a hand-held programmer that lets you "fine-tune" the stimulation for your own needs. It may take several sessions of programming in the doctor's office to obtain the best possible pain relief. Please follow your prescribed activity plan and progressively resume your desired activities as tolerated. It is usually safe to return to sedentary work in 2 weeks, more vigorous activities in 4 weeks and most people wanting to work have found and returned to work within 4-6 months.

Warnings:

DO NOT drive or operate dangerous equipment with your stimulator turned on, to avoid the risk of sudden surging stimulation.

Report pain, swelling, redness, wound leakage. These symptoms may indicate infection.

Report unexpected changes in stimulation, painful sensations (turn device OFF)

Report unexpected weakness or numbness

MRIs are contraindicated

Avoid ultrasound examinations or short wave diathermy within 10cm of the IPG (neurostimulator).