



PATIENT
EDUCATION

Neuromodulation: Vagus Nerve Stimulation

patienteducation@aub.edu.lb

www.aubmc.org



AMERICAN UNIVERSITY of BEIRUT MEDICAL CENTER

المركز الطبي في الجامعة الأميركية في بيروت

Our lives are dedicated to yours

What is Vagus Nerve Stimulation (VNS)?

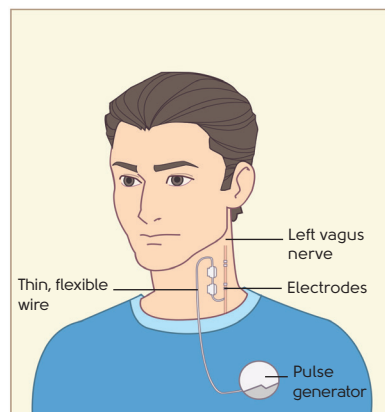
- VNS is a brain stimulation procedure. It is approved by the U.S. Food and Drug Administration for depression that is chronic and resistant to treatment.
- A pulse generator similar to a heart pacemaker is implanted in your chest, under your skin. This pulse generator sends an electric current into the brain.
- The electric current first activates the vagus nerve in your neck and then the brain cells, which are thought to be associated with depression.

What is VNS used for?

- VNS is used as an alternative or an additional treatment for depression when you have not benefitted from standardized treatments including:
 - a. Antidepressant medications
 - b. Psychotherapy
 - c. Electroconvulsive Therapy (ECT)
- VNS does not necessarily replace your medications. It may help reduce them over time. Your doctor will follow up with you regularly on your treatment regimen.
- VNS may or may not be effective for all patients with depression.
- VNS is an effective treatment for neurological disorders such as epilepsy.

How do I receive VNS?

- You will need surgery to implant the VNS device. This can be done as an outpatient procedure or you can be admitted to the hospital for one night only.
- The surgery lasts 1 to 2 hours. It can be done under local or general anesthesia.



- Two to three weeks after the surgery, your doctor will turn on the VNS device.
- The device will send intermittent (on and off) electrical pulses 24 hours a day, 7 days a week.
- You will be given a magnetic device that allows you to control the electrical current. You can also turn off the device temporarily during certain activities.

How can I benefit from VNS?

- VNS may improve your symptoms, but it will take several months before you start observing these improvements.
- VNS may protect you from future relapses of depression.
- VNS will not impair your memory or ability to concentrate.

What are the risks of VNS?

- Similar to any procedure using general anesthesia, there is a very low probability of death (1 in 10,000 patients).
- VNS has risks and side effects associated with the surgery and treatment after the surgery. Your doctor can help you assess your risks given your medical condition.
- You may feel a tingling sensation or mild pain in your neck.
- If you experience any side effects, the electric impulses can be adjusted to minimize them.
- If you cannot tolerate the side effects, the device can be shut off or removed.

Ask your doctor if you wish to know about ongoing research studies on VNS.

This educational material provides general information only. It does not constitute medical advice. Consult your health care provider to determine whether the information applies to you.

