

Vagus Nerve Stimulation (VNS) Therapy

We use the Vagus Nerve Stimulation (VNS) Therapy system to help reduce the frequency or intensity of seizures for patients whose seizures can't be controlled with medicines.



How Does VNS Work?

The VNS is a surgically implanted device similar to a pacemaker. We place a generator, roughly the size of a silver dollar, in the upper left chest, and we attach flexible wires to the vagus nerve in the left neck area. The generator delivers an electrical current to the vagus nerve. The nerve then sends the current to the brain. This might help reduce the number and/or length of seizures.

The Surgery

The surgery is done under general anesthesia and you might be able to go home the same day. The surgeon will make an incision in the left neck and underarm area.

Stimulation

We program the VNS to send stimulation 24 hours a day, every day. Your health care provider will start with a low level of stimulation and will gradually increase it over several weeks. This gradual approach helps lessen side effects.

We'll give you a magnet that you can use to increase the stimulation level in case you need to stop or reduce a seizure.



Benefits of VNS

Benefits will vary, but many patients experience:

- Fewer and less severe seizures

- Better recovery period after a seizure
- Improved mood
- Improved alertness
- Better memory and cognition
- Fewer emergency room visits

VNS therapy doesn't typically cause depression, confusion, weight gain, fatigue, insomnia or low energy like some medicines do.

If VNS therapy is successful, your health care provider might lower the dose of your child's antiepileptic medicines.

Side Effects

Common side effects include:

- Tingling or mild discomfort in neck
- Mild hoarseness in voice
- Increased coughing
- Prickly feeling on the skin
- Difficulty swallowing or increased drooling

These might occur initially, but will usually lessen after a few weeks.

Risks

Patients with VNS shouldn't have therapeutic ultrasounds (ultrasounds done during physical therapy, or used to promote healing). These might create heat in the VNS system which could damage the device. Diagnostic ultrasounds are fine.

Also, only certain types of MRI scans should be performed. Ask your health care provider if the recommended scan is safe with a VNS.

[Make An Appointment 651-290-8707](#) [Refer a Patient 651-325-2200](#)

This information is for educational purposes only. It is not intended to replace the advice of your health care providers. If you have any questions, talk with your doctor or others on your health care team.

If you are a Gillette patient with urgent questions or concerns, please contact Telehealth Nursing at [651-229-3890](#).