

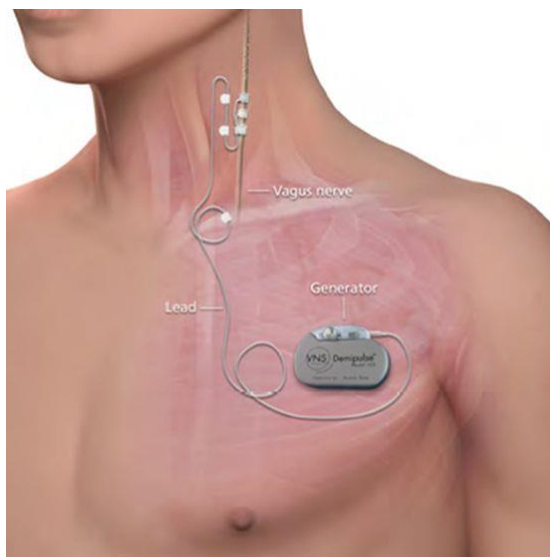
The vagal nerve stimulator

A VNS device is believed to decrease seizures through the vagus nerve's interaction with the brain, but the exact mechanism through which it reduces seizures is still not completely clear.

The generator gives out small electrical pulses regularly throughout the day. This helps to prevent seizures. If a seizure is about to happen, the generator will sense this based on a change in heart rate and send out extra pulses to prevent the seizure or make it less severe.

The VNS device is placed under the skin on the left-hand side of the chest and not the right-hand side. The right vagal nerve controls the heart rate.

Much of the VNS is automatic and requires no effort.



Some of the side effects and health problems associated with implanted vagus nerve stimulation can include:

- Voice changes
- Hoarseness
- Throat pain
- Cough
- Headaches
- Shortness of breath
- Difficulty swallowing
- Tingling or prickling of the skin
- Insomnia
- Worsening of sleep apnea

For most people, side effects are tolerable. They may lessen over time, but some side effects may remain bothersome for as long as you use implanted vagus nerve stimulation.

Adjusting the electrical impulses can help minimize these effects. If side effects are intolerable, the device can be shut off temporarily or permanently.

The vagal nerve magnet



The magnet should be kept at least 25cm (10 inches) away from credit cards, televisions, computers, microwave ovens, or other magnets

Do not drop the magnet; it can break if it falls on a hard surface

You can temporarily increase the amount of electrical stimulation by sweeping a magnet over the generator. In some instances, this can prevent a seizure if a person feels one coming on, or it can stop a seizure that is already happening.

Starting an extra dose of stimulation may

- a) Stop the seizure
- b) Shorten the seizure
- c) Decrease the intensity of the seizure
- d) Shorten the recovery period following the seizure



The magnet is swiped downwards slowly from the left shoulder blade across the VNS implant for about 3 seconds. The magnet can be used again after 1 minute if the seizure has not stopped.

Using the magnet more than once will not harm the patient or the generator