

Vagus Nerve Stimulation What School Personnel Need to Know Hall County Schools

General Information: The VNS is provided by the NeuroCyberonic Prosthesis System (NCP). It is a device that sends electronic impulses to the left vagus nerve. The implantable pulse generator, about the size of a stopwatch, is the battery source with about a six-year life. The doctor sets the dosage of stimulation with a computer in the office after surgery.

Students should continue to take their antiepileptic medications for at least the first three months after implantation. The impulse cycle “on time” is usually about 30 seconds every five minutes. In addition to the regular cycle, the student or caregiver, can swipe the hand-held magnet (in the style of a watch or pager) over the implanted generator to deliver extrastimulation between cycles when they feel a seizure coming on. This extra dose may lessen or inhibit a seizure.

Most Common Side Effects: Usually become less noticeable with time. Most common is hoarseness. Others are: sore throat, SOB, and coughing. These only occur during stimulation.

Adverse Reactions: Complications can result from: Surgery, Pulse Generator Malfunction, Battery Depletion, and Manipulation of the device through the skin. Notify the parents or doctors for side effects such as infection, pain, constant hoarseness, choking, or difficulty breathing.

Environmental Hazards: Small appliances do not affect pulse generator. Devices with strong magnetic fields such as hair clippers, loudspeakers, credit cards, computer disc, televisions, microwave ovens, watches or any other type magnets should be kept at least one foot (12”) away from the magnet. Do not store magnets near them. Stay six feet away from power transmission lines.

Handling the NCP Magnets: Never store magnets near credit cards, televisions, computers, microwave ovens, watches, or other magnets. Keep 12” inches away. Do not drop magnets. Carry the NCP magnet with you *at all times*. All classroom staff should know how to use the magnet.

- To start stimulation: Pass the magnet over the pulse generator for one second. Avoid over stimulation. To be done if feels seizure coming on or if staff sees start of seizure.
- To stop stimulation: Leave the magnet over the Pulse Generator. Tape if necessary to your chest. (Can be done when speaking in front of class or singing etc. and if stimulation affects the voice or if have swallowing problems when eating). Doctor’s orders should specify if this can be done.
- To check the battery: This should be done by family at home.

Use the magnet as often as you like, but not longer than four hours in a row. With doctor’s permission, it’s okay to leave in place for a short while. The cycle begins again when removed. If stimulation hurts, hold the magnet over the pulse generator and call the doctor and family. Always carry the magnet with you. The NCP system does not stop all seizures. If normal stimulations stop, seizures may increase.