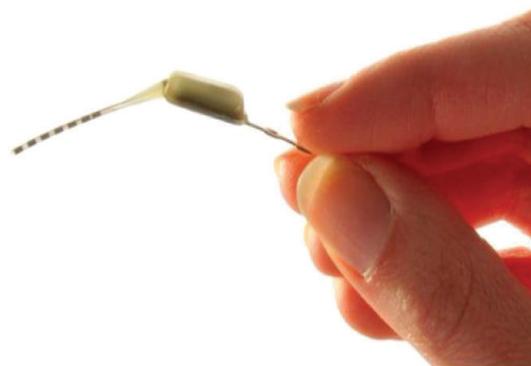
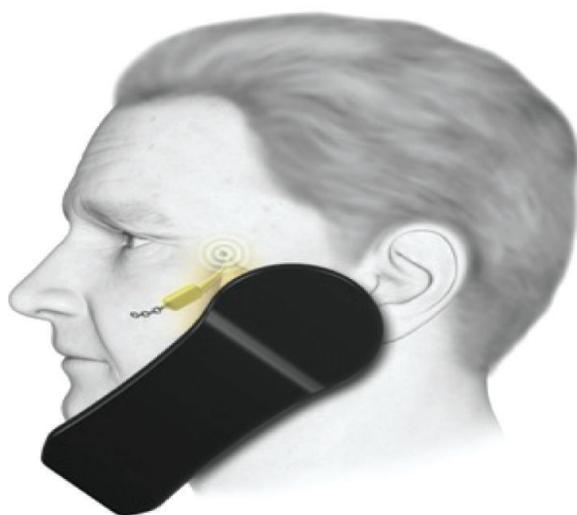


## Medical News

### A new remedy for headache – electronic aspirin



For people who suffer from migraines, cluster headaches and other causes of chronic, excruciating head or facial pain, the "take two aspirins and call me in the morning" method is useless. Doctors have long associated the most severe, chronic forms of headache with the sphenopalatine ganglion (SPG), a facial nerve bundle, but haven't yet found a treatment that works on the SPG long-term. Researchers have shown that sphenopalatine ganglion (SPG) nerve cluster (sympathetic, parasympathetic and some sensory) is thought to be attributed to nasal problems, migraines, cluster headaches and other miscellaneous pains in the head and face areas. It lies in a bony cavity called the pterygopalatine fossa, which is deep in the midface. It supplies the lacrimal gland, paranasal sinuses, glands of the mucosa of the nasal cavity and pharynx, the gingiva, and the mucous membrane and glands of the hard palate.

A technology under clinical investigation at Autonomic Technologies Inc. (ATI), USA is a patient-powered tool for blocking SPG signals at the first sign of a headache. The system involves the permanent implant of a small nerve stimulating device in the upper gum on the side of the head normally affected by headache. The lead tip of the implant connects with the SPG bundle, and when a patient senses the onset of a headache, he or she places a handheld remote controller on the cheek nearest the implant. The resulting signals stimulate the SPG nerves and block the pain-causing neurotransmitters.

The ATI Neurostimulation system consists of two separate devices, the neurostimulator and the handheld remote

controller, and requires invasive surgery. The neurostimulator is roughly the size of an almond. It has two ends, with one a slender probe. The probe is essentially attached to the SPG (sphenopalatine ganglion) bundle of nerve fibers and the device implanted in the upper mandible (within the gum, usually just below the eye socket) on the side of the head where the patient suffers most from pain. The patient is then given a small hand-held controller where, upon first experiencing the beginning signs of a headache can place the remote directly to their head to stimulate the device. This stimulation will send electrical impulses through the device to the SPG bundle, and ultimately prevent the nerves from releasing the neurotransmitters causing the pain (PSC). Patients also have the option of having the device removed once condition improves

For patients, the implant procedure to get the almond-size device implanted is almost as easy as a wisdom tooth extraction. The device is situated behind the nasal passages and eye sockets, as the SPG bundle of nerves is actually outside the brain. The implanted device has a tiny tail that sits against the nerves. When patients feel headaches coming on, they simply hold a smartphone-sized remote control to their cheek that sends a radio signal to the implanted device. This triggers a slight electrical charge to stimulate nerve cells. The patient can turn it on and off as needed. Moreover, the patient can leave it as is or take it out, when no longer necessary.

Although the electronic aspirin is surgically implanted into the patient's head, there is still a need for a medtech.

Medtechs will need to know about the remote control device and symptoms to look for in case there is an issue with the implant. Eventually asking new patients if they have an electronic aspirin installed will be as common as asking if they have a pacemaker.

Autonomic Technologies has been approved to treat migraine and cluster headaches in Europe, and the company is currently waiting for the FDA to approve them for testing in the U.S. The tests performed in Europe were the largest randomized, controlled neurostimulation studies performed. The end result showed an overall clinical improvement in 68 percent of patients. In this case, a clinical improvement means more than a 50 percent

reduction in pain and over a 50 percent reduction in frequency. Other impressive numbers include the following: a 67 percent reduction in pain within 15 minutes, significant pain reduction in 15, 30, 60 and 90 minute intervals, and an 88 percent reduction in attack frequency in 43 percent of patients.

Thus, Electronic aspirin is a great creative tool that is created with the help of latest technological aid and to those people who suffer with pro-longed headaches and migraines can get relaxed out of its inconvenience and consequences so easily with this milestone technology creation.

Available from: <http://techinerd.com/new-remedy-migraine-electronic-aspirin/>

## Medical Jokes

### Ultimate cough remedy...

The owner of a drug store walks in to find a guy leaning heavily against a wall. The owner asks the clerk, "What's with that guy over there by the wall?" The clerk says, "Well, he came in here this morning to get something for his cough. I couldn't find the cough syrup, so I gave him an entire bottle of laxative."

The owner says, "You idiot! You can't treat a cough with laxatives!"

The clerk says, "Oh yeah? Look at him, he's afraid to cough!"

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