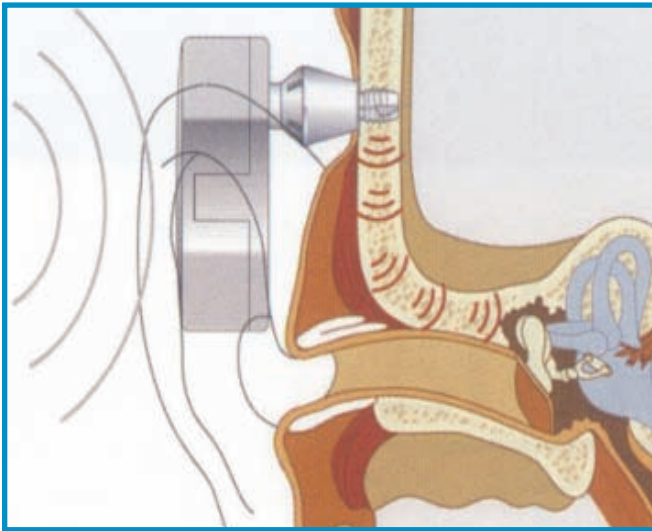


Bone-Anchored Hearing Aids: A Treatment for Unilateral Sensorineural Deafness

For many years, there has been a distinct lack of treatment options for those experiencing unilateral sensorineural, or single-sided deafness. Now a bone-anchored hearing aid (BAHA) system can enable patients to hear and understand sound received from both sides.

“The BAHA system is an osseointegrated bone-conduction implant system, which uses direct bone conduction,” explained **Dennis Thompson, MD**. **“The system is designed to help improve hearing in conditions of single-sided deafness or other situations where the ear canal is not functioning normally due to mixed or conductive hearing loss.”**



The BAHA consists of three parts: a titanium implant, an external abutment and a sound processor. The titanium implant is placed in the mastoid during a minor surgical procedure. Following a time period to allow for osseointegration, a sound processor is connected to the external abutment to the implant. Vibrations from the sound processor are transmitted directly to the implant and the vibrations within the skull stimulate the nerve fibers of the inner ear. Patients hear sound immediately upon fitting of the sound processor.



The BAHA sound processor is directly integrated to the skull bone, offering significantly better sound quality than a traditional bone conductor.



The BAHA, now an FDA-cleared solution for multilateral deafness, transfers sound through bone conduction and stimulates the cochlea in the normal hearing ear. This results in the sensation of hearing from a deaf ear. Stereo hearing improves understanding of speech.

“Often, once the adjustment period is over, the brain learns to distinguish between the sound that it receives via the BAHA and the sound received directly from the hearing ear,” stated Dr. Thompson. “After living with the frustration of hearing from only one side, patients have the sensation of hearing from both sides.”

Although the technology of the BAHA system has been in use for the past 10 years, it was approved by the FDA for use in the treatment of unilateral sensorineural hearing loss in 2002. In November 2005, the Centers for Medicare and Medicaid Services revised its definition of hearing aids and initiated coverage for the BAHA hearing system.

In addition to those suffering from single-sided deafness, candidates for the BAHA hearing system include those with conductive and mixed-loss hearing impairment who are not good candidates for traditional hearing aids, as well as individuals with chronic infection of the ear canal and people with absence of or a very narrow ear canal due to congenital ear malformation, infection or surgery.

For more information or to refer a patient, contact the Lake Michigan Sinus & Sleep Apnea Center at 269-982-3368.