ELECTROCOCHLEOGRAPHY

Your physician has scheduled you for an electrocochleography (ECoG). Certain disease processes cause interference with the circulation of the fluid in the inner ear resulting in a sensation of fullness in the ear, fluctuating hearing loss, noises in the ear (usually described as a roaring sound), and dizziness. Any or all of these symptoms can be associated with cochlear-vestibular hydrops (Meniere’s Disease). The increased pressure in the inner ear caused by the circulation problem makes the nerve endings in the inner ear more electrically excitable. An electrode placed in the ear canal measures the voltages from these nerve firings, which are compared between ears and against published norms.

Electrodes will be placed on your earlobes and forehead. Another will be slid into the ear canal and held in place with a foam rubber tip similar to what was used for your hearing test. The stimulus for the nerve endings in the inner ear to fire is sound, so you will hear a clicking noise delivered through the rubber tip. The testing should not be painful but the ear with the electrode will feel stuffy. The test usually takes about an hour to perform and you will usually see your doctor for the results afterwards. You do not have to stop any medications for the test and it should not bring on any symptoms of dizziness.