MEDICAL BREAKTHROUGHS
RESEARCH SUMMARY

TOPIC: EARLENS: CONTACT LENS FOR THE EAR
REPORT: **MB #4946**

BACKGROUND: A person who is not able to hear as well as someone with normal hearing is said to have hearing loss. Normal hearing thresholds are typically 20 dB or better in both ears. The loss may be mild, moderate, severe, or profound and can affect one or both ears. It leads to difficulty in hearing conversational speech and/or loud sounds. The reference 'hard of hearing' refers to people with hearing loss that can range from mild to severe. People who are hard of hearing usually communicate through spoken language and can benefit from hearing aids, cochlear implants, and other assistive devices. People who are considered deaf mostly have profound hearing loss, which means very little or no hearing. They often use sign language for communication.
(Source: https://www.who.int/news-room/fact-sheets/detail/deafness-and-hearing-loss)

CURRENT TREATMENTS: Surgery can improve hearing but is rarely considered a first-line treatment in adults with mild to moderate hearing loss. A cochlear implant is a surgery for adults, and, more commonly, children who have no, or very little, residual hearing. Bone-anchored hearing systems, also called BAHAs, are surgically implanted devices used for people who have hearing loss in one ear, or who have outer ear or ear canal malformations. A stapedectomy is a procedure in which the stapes, or innermost bone of the middle ear, are replaced with a prosthesis. For people who experience sudden hearing loss, steroids injected into the ear (or taken orally) can treat inflammation and sometimes help a person regain their full hearing. And, while studies are small and preliminary, researchers have found that CBD oil may help with tinnitus relief.
(Source: https://www.healthyhearing.com/report/52790-Can-you-restore-your-lost-hearing)

POTENTIAL BREAKTHROUGH WITH CHEMOTHERAPY DRUG: Researchers at the Creighton University School of Medicine identified a chemotherapy drug, Tafinlar (dabrafenib), that can protect against hearing loss in mice. Lead study author Matthew Ingersoll, PhD, a Creighton postdoctoral fellow, says, "Since dabrafenib is already an FDA-approved drug, and it has very minimal side effects, skin rash is one of the worst side effects some people have, we're hoping we can get it to clinical trials faster. I think it has a lot of applications in the future." Dabrafenib is a type of oral chemotherapy used to treat cancers with a BRAF gene mutation, and researchers have found promising results. Dabrafenib inhibits the BRAF kinase pathway that prevents the death of hair cells in the inner ears of mice. The fact that dabrafenib is administered orally means it's the least invasive and most portable treatment method, offering even greater treatment potential.
(Source: https://www.verywellhealth.com/dabrafenib-potential-hearing-loss-breakthrough-5096753)

FOR MORE INFORMATION ON THIS REPORT, PLEASE CONTACT:

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If this story or any other Ivanhoe story has impacted your life or prompted you or someone you know to seek or change treatments, please let us know by contacting Marjorie Bekaert Thomas at mthomas@ivanhoe.com