

HOME HEARING TEST

FACT SHEET

Introduction

Advances in technology have moved many tests from the medical setting to the home. Today we can take blood pressure, check insulin levels, remotely monitor a pacemaker and perform a host of other health checks for ourselves and our family—all at home. In-home tests provide many benefits including convenience, access to quick answers about health status and risk, and cost savings.

Reasons for avoidance of the healthcare system range from confusion about where to find the correct resources to resistance to see a medical professional. Many persons are hesitant to enter the medical system, which they find too difficult or too expensive to navigate.

The goal of the Home Hearing Test is to provide accurate information to consumers so they can take steps toward better hearing wellness.

Hearing Loss is a Public Health Issue

- Hearing loss is the third most prevalent chronic health condition facing seniors.
- Untreated hearing loss has social and economic ramifications.
- Quality of life and cognitive abilities decline with untreated hearing loss.
- Approximately 17% of American adults (36 million) report some degree of hearing loss.
- Fewer than 20% of those with hearing loss seek help for their condition.
- Workers in noisy jobs, gun sports enthusiasts and many others are at risk for noise-induced hearing loss.
- Professional musicians and their technical staff are often exposed to high sound levels for extended periods.

Development of the Home Hearing Test

In 2009, the National Institutes of Health (NIH) convened a small, select working group of noted medical professionals and hearing scientists from several countries to discuss accessible and affordable hearing health care for adults with mild and moderate hearing loss. The premise of the summit was that from the public health perspective, professionals have failed to meet the needs of the vast majority of persons with hearing loss in America. The working group was challenged to offer solutions to persons who do not seek the help of hearing professionals. Increasing access to hearing testing, by enabling accurate hearing tests at home and in other non-traditional locations, is one approach to reaching millions of people with untreated hearing loss.

Calibration Distinguishes this Test from Other Tests and Apps

Precision calibrated earphones and a matched sound card ensure that the test will be accurate on a compatible Windows PC. The primary limitation of other tests is they do not use calibrated equipment and there is no control over the sound source or the earphones used. Results are likely to be inaccurate.

Test Results and Recommendations

Test interpretation was validated by an expert panel of practicing audiologists on hundreds of hearing tests. Results and recommendations on the Home Hearing Test correlate closely with those obtained from hearing tests performed by licensed audiologists. The test report states whether hearing should be checked by a licensed hearing professional, but the test does not identify the cause of hearing loss or indicate what the treatment should be.

Even if test results show normal hearing, other symptoms of ear disease—such as pain, ringing, plugged feeling in the ears, or constant or frequent dizziness—could be present. If any of these conditions are experienced, evaluation by a licensed hearing professional is recommended. Users are cautioned not to use the in-ear earphones if there is excessive ear wax.

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References

- Mahomed, F., et al. Validity of Automated Threshold Audiometry: A Systematic Review and Meta-Analysis. *Ear and Hearing*, 34: 745-752, 2013.
- Eikelboom, R.H., et al. Clinical Validation of the AMTAS Automated Audiometer. *Int J Audiology*: 52, 342-349, 2013.
- Margolis, R.H., Moore, B.C.J. Automated method for testing auditory sensitivity: III. Sensorineural hearing loss and air-bone gaps. *Int J Audiology*, 50, 440-447, 2011.
- Margolis, R.H. et al. Automated method for testing auditory sensitivity: II. Air Conduction Audiograms in Children and Adults. *Int J Audiology*, 50: 434-439, 2011.
- Margolis, R.H. et al. AMTAS® automated method for testing auditory sensitivity: Validation Studies. *Int J Audiology*, 49: 185-194, 2010.
- Margolis, R.H. et al. Qualind™: A Method for Assessing the Accuracy of Automated Tests. *J. Amer. Acad. Audiol*: 18, 78-89, 2007.

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