My hearing was tested in a quiet booth, BUT...

...I work in a loud environment.

...I wear hearing aids in a busy office.

...I try to learn in a noisy classroom.

To predict communication success in a noisy world - give the HINT
HINT Pro utilizes the Hearing In Noise Test sentences, test procedures and headphone norms developed by the House Ear Institute. The system features computerized administration, scoring, report generation and data storage. The HINT requires the patient to recognize and repeat short sentences presented in quiet or in noise. The speech and noise sources can be spatially separated to measure binaural directional hearing or spatial unmasking. The patient’s sentence recognition threshold is measured in quiet and in three noise conditions. The speech always originates directly in front of the listener, and the noise can originate from the front, right or left side. HINT thresholds can be measured either with earphones (TDH-39 or insert earphones) using virtual audio sound processing or with two loudspeakers. Noise can be presented from 50-80 dB(A) but is typically fixed at 65dB(A) while the level of speech is adaptively varied based on the patient’s response.

The HINT Pro sentence materials are available in 14 languages, including American English, Latin American Spanish, Japanese, Canadian French, Cantonese, Mandarin, Taiwanese Mandarin, Brazilian Portuguese, Castilian Spanish, Korean, Malay, Turkish, Bulgarian and Portuguese*. The standard sentence materials are appropriate for individuals 16 years of age or older. A subset of the sentence materials has been normed for use with developmentally normal children 6 years of age or older. The languages that support testing of younger children are American English, Canadian French and Cantonese. The text and audio recording of the sentences are protected by international copyright.

Languages marked with an asterisk (*) are currently under development.

required as a pre-employment and fitness-for-duty test of functional hearing by large law enforcement agencies in the U.S.
When should I use HINT Pro?

HINT Pro can be used any time you are assessing a patient’s hearing. With heightened noise levels found in much of our environment today, this unique testing technique is predictive of real-world, functional hearing ability. Numerous articles have been published on the use of HINT to investigate the effect of noise on an individual’s speech intelligibility.

- Documents the benefit of hearing aid use by assessing unaided and aided speech intelligibility and verifies the effectiveness of the mapping for cochlear implant users. Also validates the benefit of binaural versus monaural hearing aid or cochlear implant use.\(^1,2\)

- Evaluates the functional hearing capabilities of individuals in hearing-critical jobs, such as law enforcement, emergency assistance, factory work, heavy equipment operating, etc.\(^3\) These evaluations can be performed with hearing aids, hearing protection devices and communication headgear used in the workplace.

- Assesses the speech intelligibility for children who are trying to learn in a noisy classroom. Children who are being taught in a language other than their primary language, learning disabled children, children with otitis media (ear infections), and children with hearing aids or cochlear implants are most vulnerable to the effects of noise in the classroom. It is important that children in these categories be accurately assessed so that appropriate remedial steps can be taken in order to maximize their learning experience.\(^4\)

Is HINT Pro reimbursable?

There is not a specific CPT code for testing functional hearing in noise. However, CPT code 92700 (unlisted Otolaryngologic Procedure – a report procedure) is being used successfully in some facilities.

How much time does HINT Pro take to administer?

There are four subtests in the HINT Pro evaluation and each test takes 3 to 4 minutes. The entire HINT test takes approximately 15 to 20 minutes.

At what age can I use HINT Pro?

In three of the available languages, the sentence materials are appropriate and normed for children as young as six years old. The children’s version of the sentences may be administered to anyone at a first grade reading level. In all available languages, the HINT can be administered to those with the language ability commensurate with that of a 16 year old.

Who should administer HINT Pro?

With minimal training, anyone fluent in the language being used for testing can administer the HINT. However, interpretation and use of the information for planning appropriate intervention must be conducted by a qualified hearing health care professional.

How is HINT Pro different from the CD version of HINT?

The HINT sentences were offered for sale on a CD in the past. These materials had to be manually mixed with speech noise using an audiometer for presentation to the patient. The CD recordings could not be used for headphone or insert phone testing, and the testing procedure, scoring, and norm-referenced interpretation was not standardized. The HINT Pro provides significantly better quality control to the administration of the test so that test reliability is greater when comparing results from site to site or from test to test over time. The HINT Pro also offers new features, including a database and automatic report generation. The HINT CD is no longer available.

If I perform a Speech Reception Threshold (SRT) and Word Discrimination tests, why do I need HINT?

The Audiogram, SRT and Word Discrimination tests are useful as components of a diagnostic audioligic test battery, but none of those measures provide information about an individual’s functional, “real-world” hearing in noise. In fact, even individuals with normal results on these tests can experience difficulty understanding speech in noise. HINT results are predictive of real-world, functional hearing ability because the tests assess the patient’s speech intelligibility in a variety of noise conditions indicative of everyday life. HINT Pro also measures the patient’s ability to use binaural hearing, which is very important for speech intelligibility in noise.

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**Bio-logic® Hearing Diagnostic Solutions**

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Standard auditory evoked potentials including ABR, ECochG, MLR, ALR, P300 and EABR

**SCOUT**
Full range otoacoustic emission test capability including DPOAE, TEOAE and SOAE

**M-A-S-T-E-R™**
Multiple Auditory Steady-State Evoked Response Technology (ASSR)

**HINT Pro****
Comprehensive system for evaluating functional hearing in quiet and in noise

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*Developed in cooperation with Sasha John, Ph.D. and Terrence W. Picton M.D., Ph.D. at Rotman Research Institute of Baycrest Centre, Toronto, Ontario, Canada. Patent Number: 6602202.

****Developed in cooperation with Sigfrid Soli, Ph.D. at House Ear Institute.

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