

# Effective hearing screening depends on three key factors: **Accuracy. Accuracy. Accuracy.**

Because false referrals hurt everyone!



**MADSEN** AccuScreen®

● Hearing Assessment ● Fitting Systems ● Balance Assessment



**otometrics**

MADSEN • AURICAL • ICS

# Are false referrals doing your screen program more harm than good?

Accuracy means high *sensitivity*—all hearing-impaired neonates are identified. But *true* accuracy also means high *specificity*—no hearing babies are mistakenly sent to a specialist for follow-up testing. Are you thinking, “Better safe than sorry?” Think again—these “false” referrals can easily turn a well-intentioned neonatal screening program into a resource-devouring monster.



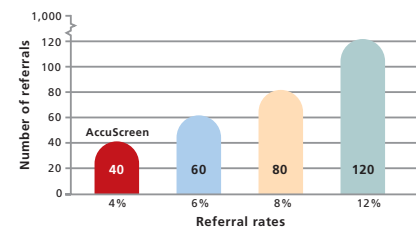
## False referrals waste valuable healthcare resources

The fact is, referral rates can exceed 10% of the total screened population if test equipment is inaccurate—and even higher if the equipment is difficult to use. As a result, hearing specialists waste precious time doing follow-ups on healthy babies and the total cost of the screening program skyrockets.

## False referrals cause unnecessary emotional stress

Naturally, every parent is concerned about their baby’s health and the weeks of uncertainty between the initial screening and follow up can be emotionally draining. Healthcare workers are also placed in a stressful position as the bearers of potentially bad news.

Yes, false referrals hurt everyone. But now, thanks to MADSEN AccuScreen, you can reduce referral rates considerably!



*Even minor differences in referrals rates (%) have a great impact upon the numbers of babies referred and the total cost of the screening program.*

ing

Billy loves to shake it

But can he hear it rattle?



# Fast, flexible, and accurate



Never before has hearing screening been this accurate. Never before has a screening system provided results as quickly. Never before has a single, hand-held screening unit included so many key technologies. And never before has a unit been so simple to operate that even non-professionals can learn to screen after only a few minutes of instruction. What's more, MADSEN AccuScreen from Otometrics interfaces to printers and PCs for full patient documentation.

AccuScreen features *all* standard screening technologies, thus making it the most flexible screening tool on the market today

AccuScreen offers three types of screening technologies: TEOAE and DPOAE, in addition to the "gold standard," ABR.



Since individual screening programs vary greatly from hospital to hospital, the ability to conduct any (or all) of these types of screening ensures greater flexibility and eligibility for reimbursement. Moreover, since our implementation of DPOAE and AABR can be used to screen patients of all ages, the total return on investment is much higher.

AccuScreen's unique statistical algorithm makes it the most accurate and reliable device of its kind in the world

Unlike most other screening equipment, AccuScreen uses a special mathematical algorithm to produce a highly accurate signal-statistical evaluation based on probability theory. Moreover, thanks to our unique Artifact Rejection System, AccuScreen is largely unaffected by common external influences, including hum from overhead lights and other electronic equipment, or in the case of AABR, non-related electrical activity from the brain or muscles. As a result, AccuScreen functions perfectly in screening environments where high levels of ambient noise cause most traditional equipment to fail.

*Improving specificity by just 2% eliminates 10 unnecessary examinations of healthy babies...*

*...for each hearing-impaired baby that is identified (Assuming a 2% incidence).*



*Clinical studies have shown that AccuScreen features clinical sensitivity of 100% and specificity levels over 96%\* in well-baby nurseries, thus making it the most accurate device of its kind in the world. In other words, virtually all hearing babies are passed and each and every hearing-impaired baby is detected!*

*\* OAE specificity > 96%. Two-step screening approach (OAE + AABR) > 98%.*

AccuScreen's DPOAE and AABR technologies can be used for both children and adults. For additional accuracy, our unique TEOAE algorithm has been optimized for screening children under six years of age.



The AccuScreen can be configured to include any or all of the following test methods:

- T = TEOAE
- D = DPOAE
- A = AABR

Here is a complete list of the AccuScreen PRO product configurations:

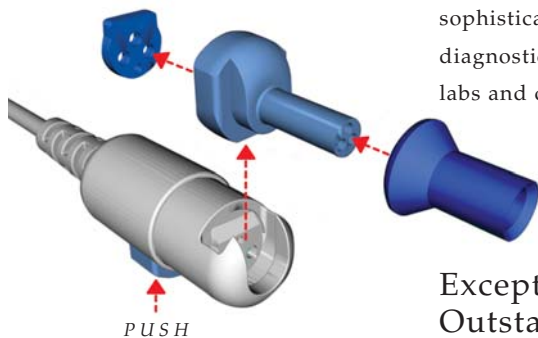
- AccuScreen T
- AccuScreen D
- AccuScreen A
- AccuScreen TD
- AccuScreen TA
- AccuScreen DA
- AccuScreen TDA



# Simple system

*Using our color-coded Y-cable and extra-soft ear couplers, probes can be attached to both ears before starting an ABR test. That means examinations can be made faster, without disturbing resting infants after the test of the first ear is completed.*

Thanks to MADSEN AccuScreen's simple, menu-based interface, learning to perform accurate screenings is now significantly easier than learning to program a VCR or mobile phone! But don't let its ease of operation fool you—AccuScreen is every bit as sophisticated as our most advanced diagnostic equipment for audiology labs and clinics.



*The ultra-lightweight infant probe (4 grams) easily disassembles for cleaning. Soft disposable ear tips are available in a range of convenient shapes and sizes.*

## Exceptional flexibility. Outstanding features.

Our modular platform lets you tailor your AccuScreen to include the specific screening technologies you need for any screening program. Moreover, wireless data transfer makes it easy to exchange information with a PC, and AccuScreen even lets you store the results from up to 250 individual patient tests in its own built-in memory. And you can even choose on-screen menus in a variety of languages!



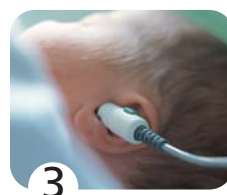
## Anyone can perform accurate screening after only a few minutes of instruction

By automating all key processes, AccuScreen provides a simple pass/refer result at the touch of a button. Since there is no need for screening personnel to make subjective evaluations, there is significantly less chance of human error and all screenings maintain consistently high standards.

### **See how simple it is to conduct an OAE screening\***

1. Download baby's name from a PC (via cable or IR) or type it directly in the test unit
2. Make sure the ear is clean and free from obstructions.
3. Fit a soft, disposable ear tip on the probe and insert it into the ear.
4. Choose the desired test and press OK. The results will appear in less than 10 seconds.

\* ABR screening also requires the attachment of disposable electrodes to the baby's head, neck, and cheek. Results take approximately one minute to collect.



# End-to-end diagnostics



Since most OAE and ABR infant screening referrals are caused by middle-ear conditions, the MADSEN OTOflex provides the perfect diagnostic follow-up to AccuScreen.

OTOflex is a compact immittance device, which provides both tympanometry and acoustic-reflex testing using the recommended 1000 Hz infant probe tone. Thus, healthcare professionals can quickly attend to AccuScreen referrals. Moreover, the acoustic reflex test, using

a mild broadband noise stimulus, rules out auditory neuropathy. Specially designed infant eartips even allow premature babies to be accurately tested.

Thanks to OTOflex's powerful PC software package, testing can be configured and controlled wirelessly directly from the PC keyboard. Results can be presented either on- or offline as needed. What's more, automatic, user-configured tests help make OTOflex results fast, consistent, and reliable. Finally, multi-patient memory and the ability to directly print single-page reports via Bluetooth®, ensures flexible testing and documentation virtually anywhere.

Follow-up Screening  
& Diagnostics

Birth  
Administration  
Screening

Early  
Intervention

*Otometrics provides a complete range of innovative audiological equipment for screening, diagnostics, and fitting/testing of hearing aids, including information management systems.*

Otometrics is the world's leading manufacturer of hearing and balance instrumentation and software - innovative concepts designed to help healthcare professionals make the best possible decisions. Our solutions range from infant screening applications and audiologic diagnostics, to balance testing and hearing instrument fitting.

Headquartered in Copenhagen, Denmark, and with a center of development in the United States, we maintain a global network of distributors and subsidiaries. Otometrics is part of GN Store Nord.

**USA CPT™ codes:**

- 92586 Auditory evoked potentials; limited
- 92587 Evoked Otoacoustic emissions; limited
- 92588 Evoked Otoacoustic emissions; comprehensive or diagnostic



**MADSEN AccuScreen®**

**Features:**

	AccuScreen PRO
TEOAE	●
DPOAE	●
AABR	●
Automated OAE & ABR test sequence	●
Pass/Refer indication	●
Ultra lightweight probe (4 gr)	●
Data storage	> 10 years
Test memory	250 tests
Patient record memory	250 patients
User selectable languages	●
Battery powered (> 10 hrs continuous operation)	●
Automatic power down after 15 minutes	●
Time/date stamp function (real-time clock)	●
Graphic display with backlight	●
Label printer interface	●
Display of statistical waveforms	●
Printing of statistical waveforms	●
Carrying case	●
Alphanumeric keypad	●
Manual data entry	●
PC interface (upload/download of data)	●
IR port (wireless data transfer to/from PC)	●
AccuLink (PC database software)	●
OZ software interface (e-Screener Plus <sup>SM</sup> & SIMS <sup>®</sup> )	●
HI*TRACK™ interface	●

Distributor:

- Hearing Assessment
- Fitting Systems
- Balance Assessment

**GN Otometrics, Europe.** +45 45 75 55 55. info@gnotometrics.dk  
**GN Otometrics, North America.** 1-800-289-2150. sales@gnotometrics.com  
[www.otometrics.com](http://www.otometrics.com)

