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The Newborn Hearing Screening Monthly Newsletter is Back!



We are excited to announce that the *Newborn Hearing Screening Monthly* is back after a three month break while one of our team members, Hannah Glick, an audiologist with COEHDI, was out on maternity leave. Hannah is happy to report that the newest little addition to the family, Anneli (pronounced ahna-lee), passed her newborn hearing screening. Anneli is now almost 3 months old and has started cooing and smiling.

Which Newborn Hearing Screening Technology is Best?

A common question asked by professionals screening babies is which technology, otoacoustic emissions (OAE) or automated auditory brainstem response (AABR), is best for newborn hearing screening. The answer? It depends!

A comparison chart of the two technologies (OAE and AABR) is described here.

Otoacoustic Emissions (OAE)	Automated Auditory Brainstem Response (AABR)
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<p>How it works: An earphone with a microphone is placed in each ear. Sound is presented to each ear through the earphone. The microphone measures the inner ear's response to sound.</p> <p>When it is recommended:</p> <ul style="list-style-type: none"> • When screening babies in the well-baby nursery <p>Pros:</p> <ul style="list-style-type: none"> • Quick and easy to administer • Can be performed while baby is sleeping • Often less expensive than AABR <p>Cons:</p> <ul style="list-style-type: none"> • May miss babies with neural hearing loss (auditory neuropathy) • May miss babies with low-frequency or mild hearing loss 	<p>How it works: Earphones are placed in each of the baby's ears. Sound is presented to each ear through the earphones. Electrodes (sticky patches) placed on the baby's head measure the brain's response to sound.</p> <p>When it is recommended:</p> <ul style="list-style-type: none"> • When screening babies in the well-baby nursery • When screening babies in the neonatal intensive care unit (NICU) <p>Pros:</p> <ul style="list-style-type: none"> • Quick and easy to administer • Can be performed while baby is sleeping • Will not miss babies with neural hearing loss (auditory neuropathy) <p>Cons:</p> <ul style="list-style-type: none"> • Often more expensive than OAE • May miss babies with low-frequency or mild hearing loss
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According to the 2019 Position Statement published by the Joint Committee on Infant Hearing (JCIH 2019), babies in the well-baby nursery can be screened with OAE or AABR. While both screening technologies are appropriate in the well-baby nursery, it is important to keep in mind that screening with OAE may miss babies with neural hearing loss (auditory neuropathy). Since auditory neuropathy is more common for babies who are in a NICU, AABR is recommended for this group of newborns.

JCIH 2019 recommends that all babies in the neonatal intensive care unit (NICU) receive a newborn hearing screening solely with AABR. Hearing loss is more common amongst babies in the NICU. Babies in the NICU also have greater risk factors for neural hearing loss (auditory neuropathy). Babies who do not pass their hearing screening with AABR in the NICU should be referred directly to a pediatric audiologist for rescreening and a comprehensive hearing evaluation.

Some newborn hearing screening programs choose to use a combination of screening technologies when screening babies in the well-baby nursery. This is called a two-stage screening protocol. For example, OAE may be used to do the initial screening, followed by AABR for the rescreening (2nd screen). The benefit of using a two-stage screening protocol in the well-baby nursery is that it can decrease the number of babies who do not pass, reducing the need for outpatient follow-up.

It is also important to remember that both OAE and ABR may miss babies with low-frequency and mild hearing loss. This is why it is important to provide families with information about [typical milestones for communication and language development in children](#).

Here to Help

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