

NEWBORN HEARING SCREENING MONTHLY

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Is My Newborn Hearing Screening Equipment Working?

As professionals, in order to be confident in our newborn hearing screening results we must be confident that our screening equipment is functioning properly. Problems with equipment can also affect your program's referral rate or the length of time required to screen babies.

This issue of *Newborn Hearing Screening Monthly* focuses on practical troubleshooting tips to help you easily identify common issues or problems when carrying out a newborn hearing screening. Refer to the [easy, printable troubleshooting tips pages](#) below. Have questions about your newborn hearing screening equipment? Just reach out by [email](#) for technical assistance!

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Here To Help

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Troubleshooting OAE Screening Equipment

You get an error message when you try to begin your OAE screening test.
Below are some easy tips for troubleshooting your OAE equipment:

1

Conduct regular listening checks

Conduct regular listening checks of your equipment to ensure that the sound stimulus from your equipment is audible from the earphone before use and that the level of the stimulus is consistent across regular listening checks. Annual calibration of your equipment will also help to ensure accurate stimulus levels.

2

Check to see if your probe tip is clogged

Babies are often born with a waxy, white protective coating called vernix which can clog the probe tip on your equipment. Cerumen (earwax) is another possible culprit which can cause a clogged probe tip. Check that the probe tip is clear of debris and that the stimulus is audible.

3

Verify you are using the correct size probe tip

A good seal is necessary for accurate OAE measurements and to prevent the influence of noise in the environment. Make sure you use the largest probe tip that fits into the baby's ear to create a solid seal.

4

Ensure the probe is inserted all the way in the ear

If the probe tube is not inserted properly, it may fall out during your screening test or introduce additional background noise. To ensure a good probe fit, gently pull up and back on the baby's external ear (pinna) to fully open the ear canal before you insert the probe. Give the probe a one-quarter turn as you insert it into the ear to get a more solid fit. When a probe is properly inserted, you should feel a bit of resistance when you gently tug the probe to remove it from the baby's ear. You should not have to hold the probe in place while the equipment is running.

5

Minimize noise

Excessive movement, sucking, or crying may result in high noise levels which can influence the results. Similarly, excessive noise in your environment (i.e. monitors and equipment) can affect the accuracy of your test results. The best time to conduct a newborn hearing screening is when the baby is resting quietly (i.e. after a feeding or diaper change). If you suspect environmental noise to be an issue in your screening test environment, bring this issue up with your newborn hearing screening coordinator.

Troubleshooting ABR Screening Equipment

You get an error message when you try to begin your ABR screening test.
Below are some easy tips for troubleshooting your ABR equipment:

1

Conduct regular listening checks

Conduct regular listening checks of your equipment to ensure that the sound stimulus from your equipment is audible from the earphone before use. The level of the stimulus should be consistent across regular listening checks. Annual calibration of your equipment will also help to ensure accurate stimulus levels.

2

Make sure your electrodes are plugged in correctly

It has happened to the best of us at least once! Make sure your electrodes are plugged in correctly before beginning your screening test.

3

Check to see if your earphone is clogged

Babies are often born with a waxy, white protective coating called vernix which can clog the earphone. Cerumen (earwax) is another possible culprit which can cause a clogged probe tip. Check that the earphone is clear of debris and that the stimulus is audible.

4

Ensure the earphone is inserted all the way in the ear

Babies are small and this can sometimes make it a challenge to keep the earphone in the ear. Check earphone placement often. When a baby is swaddled, it is less likely for the earphone to fall out during the newborn hearing screening test.

5

Check your impedances

Impedance refers to the resistance to the flow of energy. Low impedances are necessary to ensure good contact with the baby's head for proper recording of the ABR response. If your impedance values are high, scrub the baby's skin again or re-apply your electrodes before beginning the newborn hearing screening test.

6

Minimize noise

Excessive movement, sucking, or crying may increase muscle noise, which falls in the same frequency range as the ABR response we are trying to measure when we perform an ABR screen. The best time to conduct a newborn hearing screening is when the baby is resting quietly (i.e. after a feeding or diaper change). Medical equipment in your screening test environment can also introduce electrical noise, interfering with your ability to obtain accurate screening results. If you suspect issues with electrical noise in your test environment, bring this issue up with your newborn hearing screening coordinator.