



## AUDITORY BRAINSTEM RESPONSE (ABR)



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## INFORMATION FOR PARENTS

### WHAT IS AN AUDITORY BRAINSTEM RESPONSE (ABR) TEST?

The ABR test is used to determine a child's ability to hear by measuring the hearing nerve's response to sound. An ABR test is necessary if an infant fails new born hearing, or for older children if there is a suspicion of hearing loss that was not able to be confirmed through standard hearing tests.

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The ABR test uses a computer and specialised equipment to measure the way a child's hearing nerve responds to different sounds. An audiologist performs the ABR while the child is sleeping. If your child is aged 0 to 6 months, the test is performed while he/she is sleeping naturally. If your child is older than 6 months then they will need to be sedated for the assessment. Sedation is used because your child must stay asleep for the ABR. Your child will be booked into the paediatric ward of Panorama Mediclinic for the day. An Anaesthetist will administer the sedation and is present throughout the assessment.

## HOW IS AN ABR TEST PERFORMED?

Once your child is asleep naturally or sedated, the audiologist cleans the skin on their forehead and behind each ear and electrodes are placed on those areas. The audiologist then presents sounds through earphones which are inserted into the entrance of the ears. The electrodes then measure the brain's response to those sounds. The audiologist looks for certain neurological "markers" as your child's hearing nerves respond to sounds. The softest loudness level at which these markers appear corresponds to the child's hearing level at that pitch. By analysing your child's hearing nerve responses and interpreting these markers, the audiologist can tell if your child has a hearing loss. The test takes approximately 2 hours once the ABR testing begins. The ABR test is safe and does not hurt. The child is awakened when the test is finished. The audiologist will discuss the test results and any recommendations with you.

## PREPARING YOUR CHILD FOR AN ABR TEST

It is important to notify us in advance about any special needs your child might have.

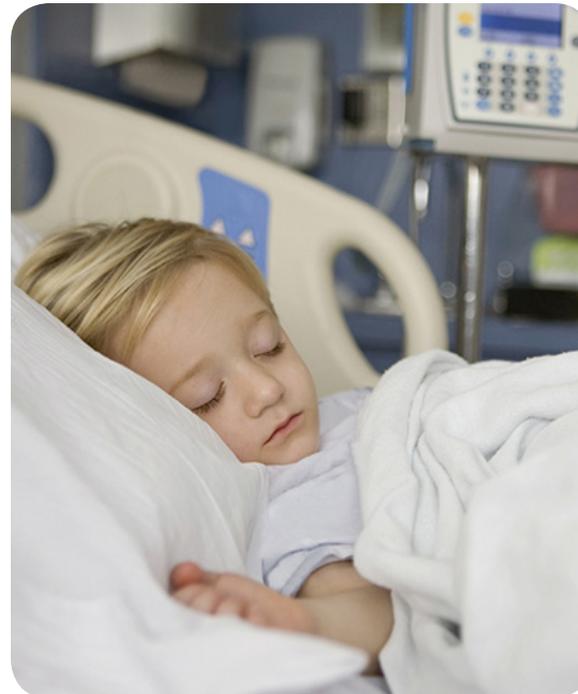
## BABIES UNDER 6 MONTHS

The most important way to prepare your baby for the test is to arrive with a tired, hungry baby. Most young babies will sleep through the entire test if they are brought to the appointment ready for a feeding and a nap. Try to keep your baby awake and hold off feeding him or her until you get to

the appointment. Once you are in the testing room and your child has been prepped for the test, you can nurse or feed your baby a bottle so he or she falls asleep naturally. The test will take place while your child sleeps in your arms or in a crib, whichever is most comfortable for you and your baby. **Multiple appointments may be needed to complete the assessment.** The ABR test without sedation is done in a room in this practice.

## CHILDREN OLDER THAN 6 MONTHS

Children in this age range need sedation medication in order to sleep throughout the test. When sedation medication is needed, there are important rules for eating and drinking that must be followed in the hours before the test. If those rules are not followed, your child's ABR test will be rescheduled for another day. Please follow the special rules listed under "Home Preparation for Sedation."



## HOME PREPARATION FOR SEDATION

### FOR INFANTS UNDER 12 MONTHS:

-  Up to 6 hours before the scheduled arrival time, formula-fed babies may be given formula.
-  Up to 4 hours before the scheduled arrival time, breastfed babies may nurse.

### FOR CHILDREN OLDER THAN 12 MONTHS:

-  After midnight the night before the assessment, do not give any solid food or non-clear liquids. That includes milk, formula, juices with pulp, coffee and chewing gum or sweets.

### FOR ALL CHILDREN:

-  Up to 2 hours before the scheduled arrival time, give only clear liquids. Clear liquids include water, and juices you can see through, such as apple or white grape juice.
-  In the 2 hours before the scheduled arrival time, give nothing to eat or drink.

