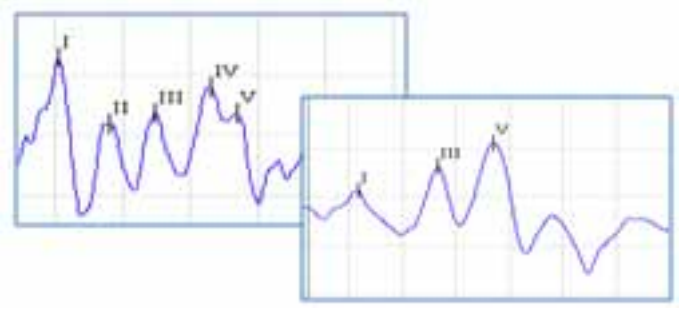
CHARTR EP 200 Quick Reference Guide

For 80dB 1 Channel (Switched) Protocol

What is ABR?

The Auditory Brainstem Response (ABR) is an evoked potential test that evaluates the integrity of the 8th cranial nerve. Small stickers (electrodes) are placed on the forehead and behind the ears. Headphones are placed on the ears or small foam tips are placed in the ears. Sounds from the computer are sent to the ears and the hearing sensitivity is measured via the electrodes. Waveforms on the computer document the hearing nerve's response to sound. The information is analyzed by the doctor and/or audiologist. Typically the ABR response is identified by 5 peaks or even more simply, 3 peaks. Through research, these peaks occur within specific time periods or "latencies" to be considered normal. An example is below:



Why

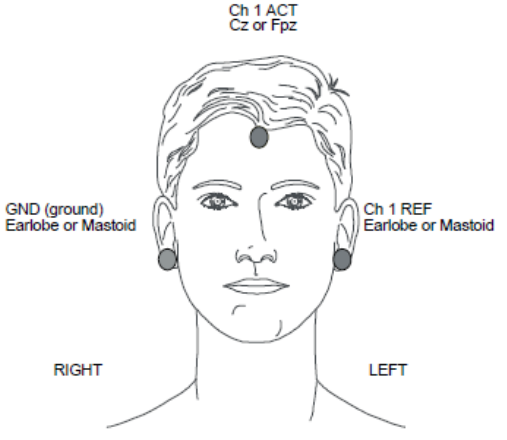
ABR testing is typically used to:

- Determine hearing levels in infants and difficult to test populations.
- Evaluate the integrity of the auditory nerve as related to acoustic neuroma.
- Assist in the diagnosis of auditory neuropathy.
- Provide information on brainstem abnormalities and central pathologies.

How to test

Patient preparation and testing environment are extremely important. The room should be sound treated or very quiet. Good electrical ground is crucial. Lights, cell phones and other devices that may cause interference should be turned off. It is best if the patient is asleep or at least very relaxed. Be sure to inform the patient (or parent) about the procedure before you place the transducers.

- Clean the electrode sites. Gently use electrode prep to clean the areas indicated below.
- Connect the electrodes to the leads and place the electrodes on the prepared sites.
- Connect the leads to the preamp (CH1 +, CH1 - and GND) as indicated below.
- It is recommended impedance be under 5kΩ and interelectrode impedances be less than 2kΩ.



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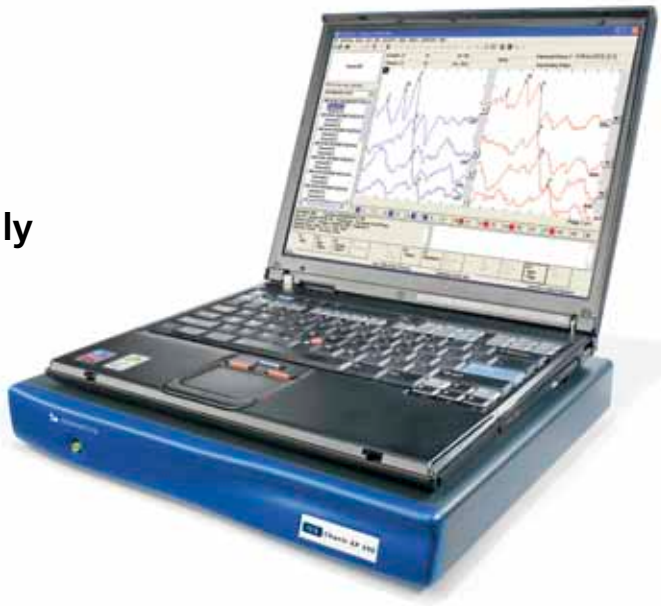
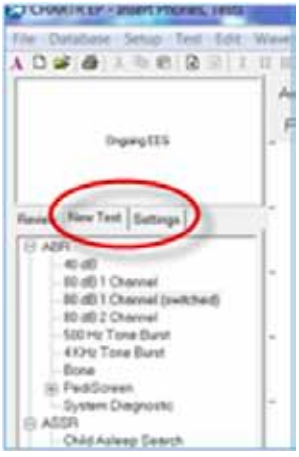
Using Chartr EP 200

- ✔ **Fast**
- ✔ **Efficient**
- ✔ **User friendly**
- ✔ **Flexible**



Before the test

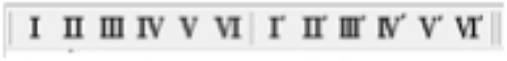
- Enter the software
- Choose the operator and enter the patient information
- Select the New Test tab
- Choose 80dB 1 Channel Switched
- Select the Settings tab
- Choose which ear you would like to test



Check impedance (1) then Start the EEG (2). In the top left corner observe the EEG window. If it is good/calm, begin the test by selecting Collect (3)

During the test

While the test runs, watch the EEG to monitor activity. Use the Cursors (A and B) during testing to check latencies or you may mark the waveforms while collecting data. Place the cursor to identify the placement and then choose the marker you would like to position at that spot.



At the end of data collection shaded normative data may be placed on the panel to assist in the identification of waveform peaks as compared to age matched norms by selecting the icon.

Select a different intensity or the opposite ear following the protocol of your facility to complete the testing procedure.

After the Test

- Remove the transducers from the patient.
- Using a moist towel, gently wipe and remove the electrodes and clean the area.
- Help the patient up, slowly!
- Finish marking your collected data.
- Go to File, Print EP Report, choose desired options.

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