

How to Select and Purchase Otoacoustic Emissions (OAE) Equipment for Screening Children 0 – 5 Years of Age



1) Know your options	Use the equipment comparisons table at Kidshearing.org to explore the available OAE models. Not all equipment is equally effective in screening young children in natural environments. Do not purchase equipment based only on price--take time to review the criteria listed below and evaluate the equipment in your own setting.
2.) Get experienced advice	Seek advice and assistance from a pediatric audiologist or another individual who has OAE screening experience. These people can help you assess critical equipment features. Go to: kidshearing.org/resources/find-audiologist if you need help finding a local audiologist.
3) Read reviews	Read the reviews on kidshearing.org and seek information from others about their experiences with different models of OAE equipment.
4) Test drive one or more models	Contact equipment manufacturers and ask them to put you in touch with a local distributor. Tell the distributor that you need to use the equipment for several days in order to make a purchasing decision. Evaluate equipment performance by screening children of varied ages in varied settings where you intend to conduct screening regularly (classrooms, homes, etc.). Test more than one model so that you can compare performance under similar conditions.
5) Order exact specifications	Once you decide on a screening unit, be sure you have the exact specifications and that these are reflected in your organization's purchasing process.

Primary Criteria for Selecting OAE Equipment

The following are the most important elements to consider when purchasing OAE equipment:

Buy only a basic unit	Only consider the basic OAE screening models. As a lay screener, you do not need a model intended for audiologists to use for diagnostic purposes. These cost more, have features you do not need, and can be more complicated to operate.
Get a DPOAE screening unit	Get a Distortion Product (DP) OAE screener rather than a Transient Evoked (TE) OAE screener. You do not need to understand the difference. DPOAE units have been demonstrated to be easier to use with young children in natural settings.
Look for a probe that stays firmly in the ear	Notice how well the probe stays seated in the ear canal. After you insert the probe and let go, it should not wobble or fall out easily even when the child moves a little.
Strongly weigh the advantages of compressible foam probe covers	All OAE equipment requires disposable probe covers for securing the probe in the child's ear during the screening. Some models have compressible foam probe covers. These tend to be easy for screeners to use because they expand to create a secure fit in ear canals of different sizes, they keep the probe in place if the child moves a bit, and they allow the equipment to run in moderately noisy environments.
Select equipment that allows you to screen in moderately noisy environments	Some OAE models work better than others when screening in settings where noise is present. Most young children will remain cooperative for only a short period of time. If the equipment runs only when it is very quiet, or requires too much time to complete a screening if any noise is present, it will be impractical and frustrating for lay screeners to operate. Be sure the equipment you select has been tested in the settings/conditions under which you intend to screen. Comparing the performance of multiple models, under similar conditions, will allow you to make the most informed choice.

Secondary Criteria for Selecting OAE Equipment

Once you are confident that you have identified one or more equipment models that satisfy the primary criteria described above, you may also consider the following elements. These considerations are less important and reflect personal preference more than essential features.

Cost	While cost is obviously important, less expensive equipment is not necessarily economical if it does not function well or if screeners struggle to complete screenings. A piece of screening equipment is an investment that should last for many years, so make your selection with that in mind. Costs to consider include the basic screening unit (purchase only a basic screener and not a diagnostic screener), disposable probe covers, replacement probe, annual equipment calibration, and other extras like printers and carrying cases. Note that foam probe covers are usually more expensive than plastic probe covers. However, they easily conform to a variety of ear canal sizes. Non-foam covers must be carefully selected for correct size and this may result in screeners trying, and discarding, multiple covers that are not the correct size in order to get the right fit. If screeners struggle to achieve a good probe fit, the screening will take longer and a greater number of children are likely to refer and require a second screening attempt—which is costly in terms of time and effort.
Power	Note how the equipment is powered (AAA battery, internal rechargeable battery), how long can the equipment run on a battery charge, and whether the equipment can be used while plugged into an AC outlet.
Warranty & software updates	Find out the length of the warranty and what is included/excluded. You may also inquire about how you will be notified if there are software updates and whether those updates are included in the purchase price.
Display screen	Look at whether the display screen is backlit, allowing screening in dimly lit areas, how easy it is to read the screen and whether the displays are color or black and white.
Messages	Pay attention to whether the prompts or messages on the display screen make sense to you and guide you through the screening. For example: Can you navigate the screens easily to start a test? Can you visually determine if the screening is proceeding and can you easily see the screening results? Do you understand error messages and what you should do in response? If you accidentally push the wrong button, what happens—are you taken to complex displays that are confusing to a lay screener?
Memory	Find out how many screening results are stored, whether they are easy to navigate to and are ear-specific.
Data linkage	If you are using other software/databases to track information about the children you serve, you may want to check whether the screening equipment software can be linked with the larger system.
Locked Pass/Refer criteria	Note whether the equipment is “locked” or whether screeners could unintentionally change the pass/refer criteria.
PE tube adjustment	Find out if any adjustment is needed to screen children with PE tubes. If so, consider how you will be alerted to whether a child has PE tubes prior to screening so that you can make the necessary adjustment.
Accessories	Find out what additional accessories are available such as a printer, or carrying case. If these accessories come as part of the standard package and are not useful to you, ask whether they can be exchanged for items you would use, such as additional probe covers or an additional probe.