

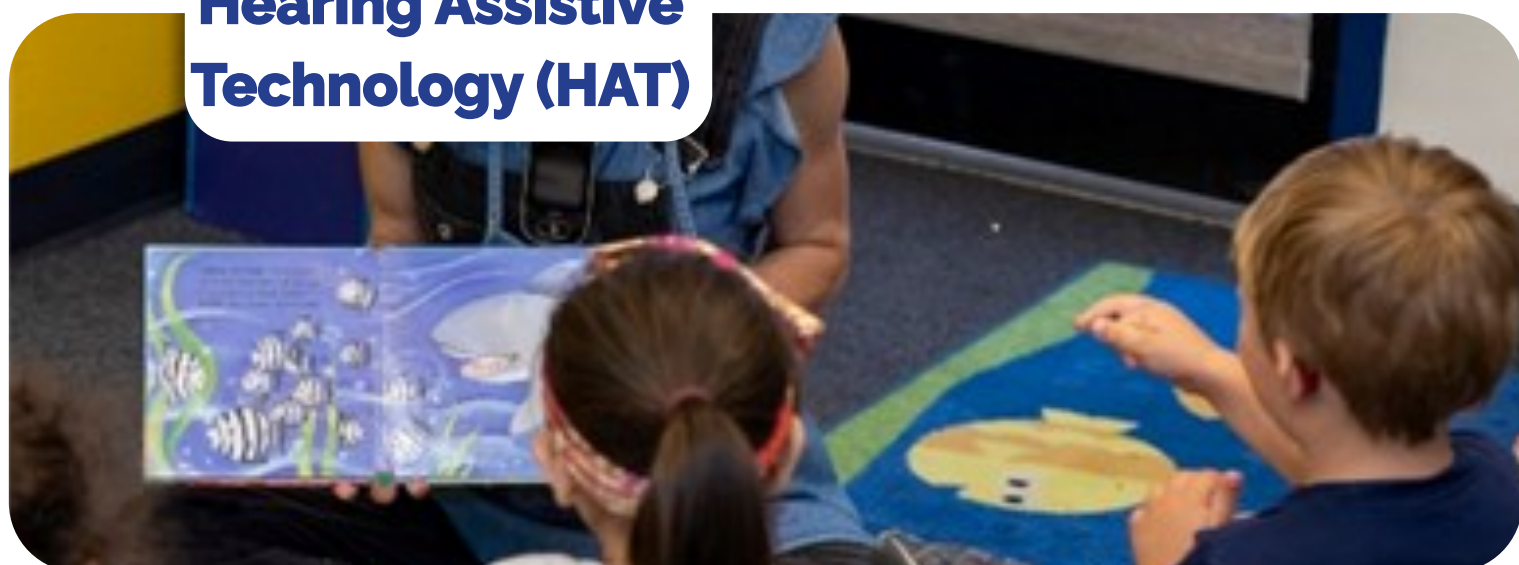
# Connections

A publication of the Center for Deaf and Hard of Hearing Education

Volume 8, Issue 6

Deaf Education

## Hearing Assistive Technology (HAT)



### Which HAT system should I be using with my students?

The short answer is that it depends on the technology they are using (hearing aids vs. bone-anchored devices/ soft band vs. cochlear implants). It also depends heavily on the manufacturer of their hearing aids, cochlear implants, or bone-anchored devices.

It's not easy. Even educational audiologists must continually educate themselves on which technology is compatible with each device. Many older cochlear implant models and hearing aids were compatible with Phonak Roger, which many school systems own, with the correct receivers. That has become increasingly difficult as some manufacturers have changed their ear-level technology, due to a desire for their patients to use their company-specific remote microphone.

## Break It Down

### Phonak/Advanced Bionics

A newer Phonak hearing aid is compatible with all Roger microphones and with a Roger X receiver, which needs to be installed with the Roger installer. Older Phonak hearing aids are compatible with audio-shoe receivers (also manufactured by Phonak).

Advanced Bionics cochlear implants are compatible with Roger microphones with either an audio-shoe or for newer cochlear implants, with installing Roger X receiver, similar to Phonak hearing aids.

### The possibilities are endless!

Basically, if a child has an ear-level hearing technology (i.e. hearing aid, cochlear implant, bone-anchored device), then an ear-level receiver is the best option. There are far too many configurations of ear-level technology and remote microphone combinations to list them all.

To verify the most up-to-date options, visit Phonak's Roger Configurator:

[www.phonak.com/en-int/roger-configurator](http://www.phonak.com/en-int/roger-configurator)

### Oticon

Newer Oticon hearing aids are made to automatically connect to the Oticon EduMic. No receiver is required. However, to connect a newer Oticon hearing aid to a Roger (Phonak) microphone (such as the Roger Touchscreen), different receivers are needed for different models of hearing aids. Most recent models (<1 year old) will require the child to wear an EduMic with a Phonak NeckLoop in order to connect to Roger technology. Another option is to have the child wear the EduMic with a Roger X inserted in the bottom, which will then connect to a Roger microphone.

### Cochlear Corporation

Cochlear Corporation cochlear implants (Nucleus N7, N8, Kanxo) are compatible with Cochlear's remote microphone, the Mini Mic 2+. The MiniMic 2+ also does not require a receiver to connect Cochlear's cochlear implants. As with the EduMic, the MiniMic is compatible with Roger Technology with the appropriate receivers (Phonak NeckLoop, Phonak Roger X). Again, this requires the Roger X to be inserted into the bottom of the MiniMic, connected to both the CI and the Roger microphone and then worn by the child.



## Ear-Level Technology

When using technology from the same manufacturer, it's typically simple (e.g. Phonak to Phonak, Advanced Bionics to Phonak, Oticon to Oticon). When ear-level technology is different than the remote microphone, receivers can be purchased to allow the remote microphone to connect with the transmitter. Or, schools have the option to purchase a remote microphone from the same manufacturer as the ear-level device for seamless compatibility.

In some cases, in order to allow existing remote microphone technology to connect to a child's ear-level technology, several steps will need to be followed with the receivers to ensure a stable connection. Keep in mind—the more technology accessories used, the more the signal can be degraded. Additionally, an increase in technology to troubleshoot may be required if a child's system

**When in doubt, consult with an audiologist!**

**"Verify, fit and ensure appropriate compatibility so that the child can have equal access to their educational environment."**



Rebekah F. Cunningham, PhD