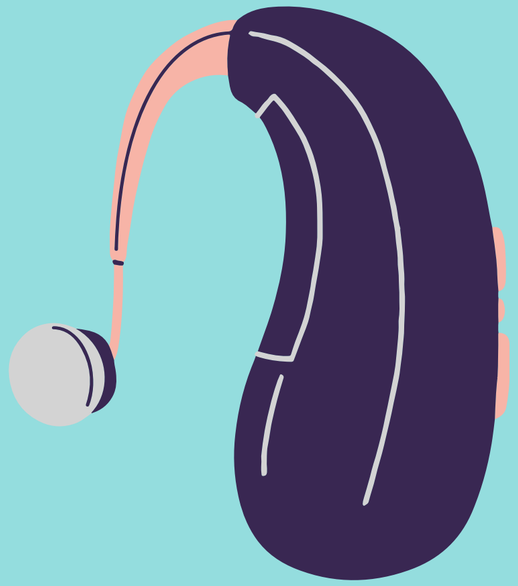
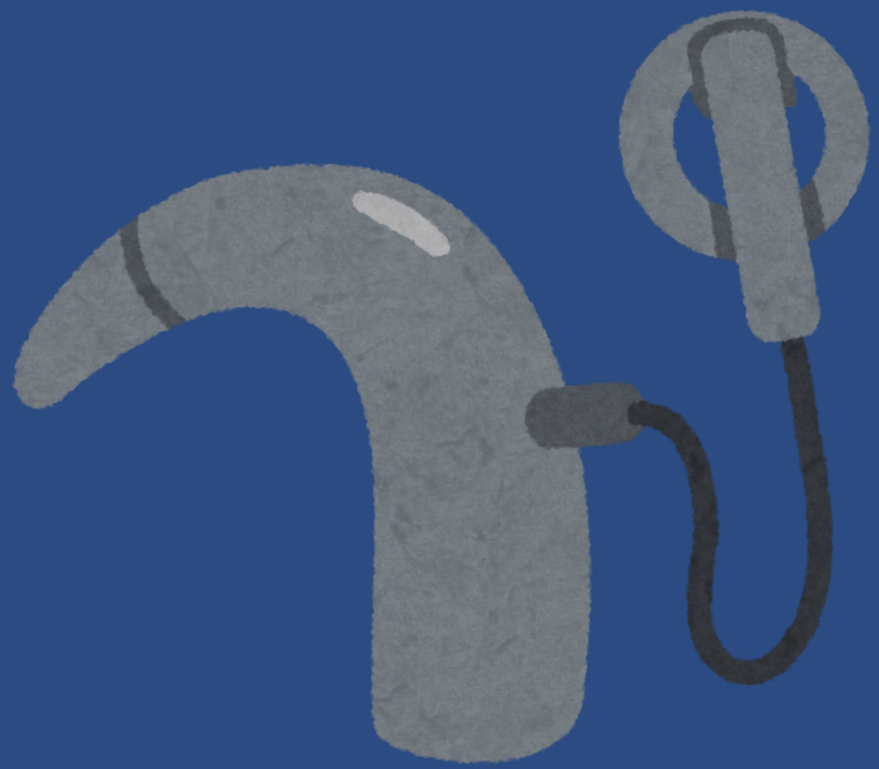
Technology in the Deaf World

Hearing Aids

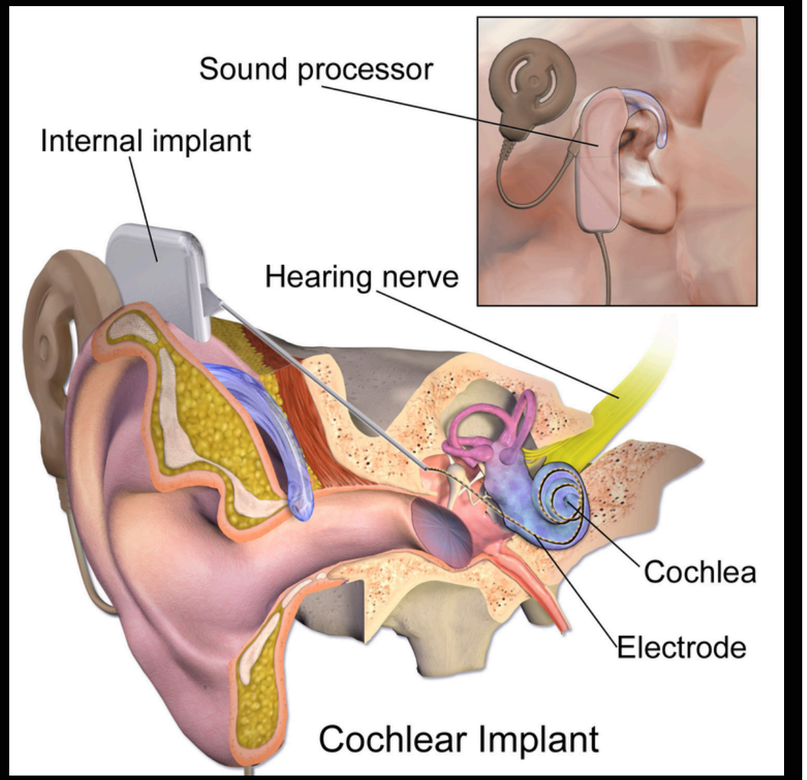
Small electronic devices that are worn in/behind the ear to amplify sound; common for mild to moderate hearing loss.
Primarily useful for conductive hearing loss; modern versions can come with features such as noise reduction, bluetooth capabilities, and app connections for fine tuning.
Hearing loops (induction loops) can be used to limit excess sounds as well by transmitting sound directly to the hearing aid.





Cochlear Implants

Surgically implanted devices that directly stimulate the auditory nerve (VC) to provide a sense of sound; used in individuals with severe or profound hearing loss; bypass damaged portions of the ear.
Useful for sensorineural hearing loss; aids those who do not benefit from hearing aids; may require rehabilitation.

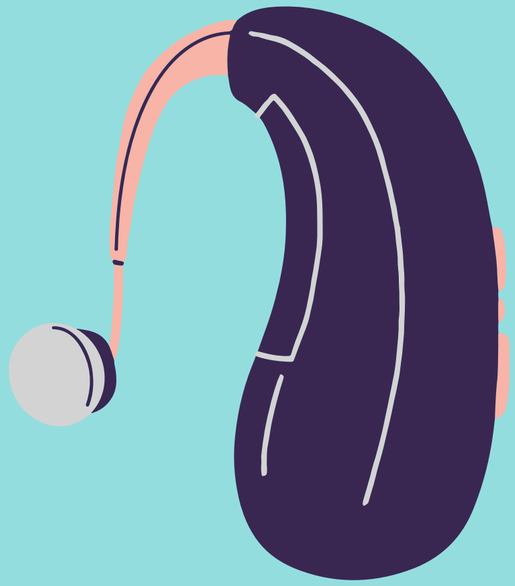


Cochlear implant

TRANSMITTER
MICROPHONE
RECEIVER
SPEECH PROCESSOR

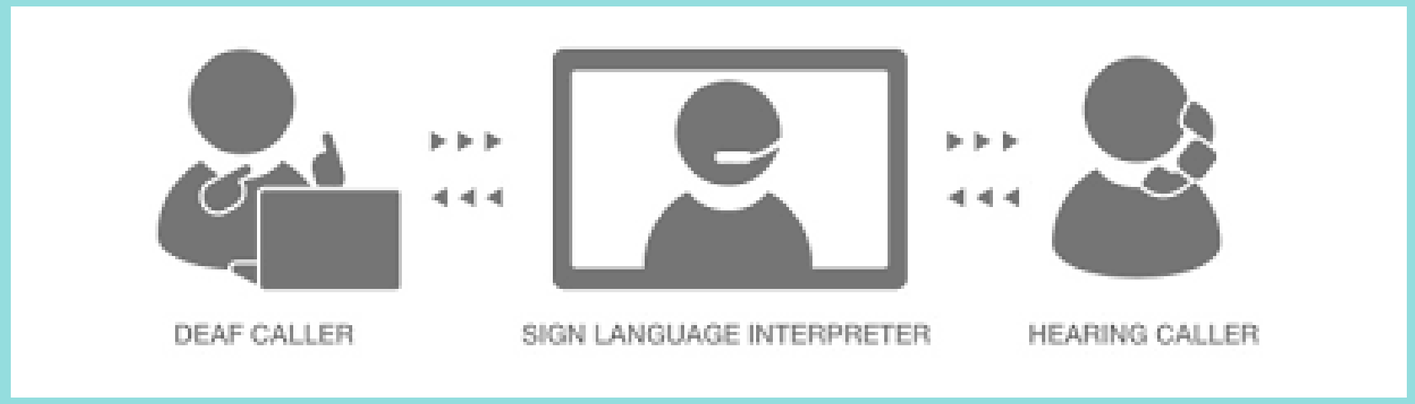
Tinnitus Maskers

Devices that emit white noise or other sounds to mask tinnitus (ringing); does not cure the condition.
Appear similar to hearing aids.



Closed Captioning and Subtitles

Captioning that displays on the screen to represent spoken dialogue and (non-speech) sounds in various forms of visual media; useful for individuals to engage with media content, but accuracy of captions can vary.



Video Relay Services

VRS allows deaf individuals to communicate with an intepreter who in turn speaks to the hearing individual on the other side of the phone; very useful for real-time distance conversations.

Teletypewriter (TTY)

Also known as a teleprinter or text telephone; allowed deaf individuals to to type messages back and forth over telephone lines.
Useful previously, but now largely antiquated due to the use of smartphones and text messaging.

Vibrating Alarm Clocks

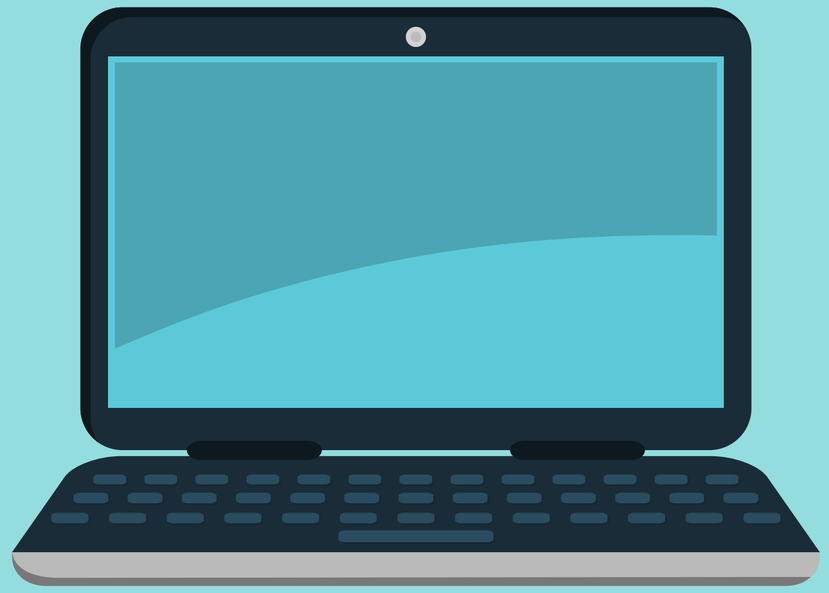
Designed to alert deaf individuals by vibrating when the alarm goes off.
There is a similar function in some alarm systems for fire alarms and doorbells to allow for tactile feedback.

Flashing Alert Systems

Alerts for doorbells, smoke alarms, phone calls, and other systems that flash to alert a deaf individual.

Sign Language Recognition and Translation Technologies

This technology uses cameras, sensors, or machine learning algorithms to recognize and translate sign language into text or spoken language; still emerging and thus somewhat limited.
Potential to be highly useful, especially in situations where an interpreter is not available.



Assistive Listening Systems (FM Systems)

FM systems that use a microphone worn by the speaker and a receiver worn by the listener; the sound is transmitted wirelessly to the receiver. Possible to link the system to a bluetooth enabled hearing aid; very useful in edicational settings.

*In use at TAMU

Sign Language Interpreting Services

Involves the use of human interpreters.
Can be difficult to find an interpreter, especially for more specific circumstances, but an ideal choice for those who understand sign language.

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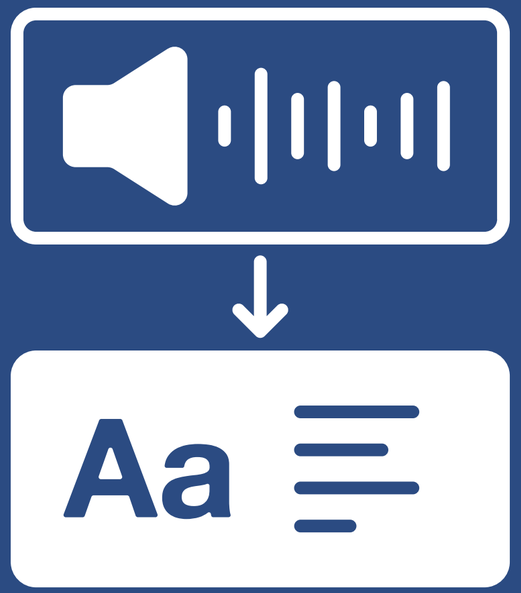

Transcriptioning / Captioning Software

Involves the use of software that transcribes (hears and writes down) information in real time.
Mildly unreliable, but there is work being done to increase accuracy. More readily available than human transcription.
Can be very useful in situations with limited technical language.

*In use at TAMU

In Person Transcriptioning / Captioning

Involves the use of a person who does the live transcription.
Tends toward being more accurate than transcriptioning software, but is less readily available.
May also be more helpful in situations heavy in technical language (jargon).

*In use at TAMU

Alerting Devices

Devices used to alert individuals about environmental sounds, such as a baby crying, doorbell ringing, or a fire alarm.

These can use vibrations, lights, or loud sounds to notify the user.

Deaf Telephones (Voice Carry-Over)

Allow individuals to communicate via text but also provides VCO, where the individual speaks outloud and receives typed messages back.
Becoming less popular due to texting.

Reminders:

- Dues due Nov. 1
- Headcount for potential football pull vs. watch party