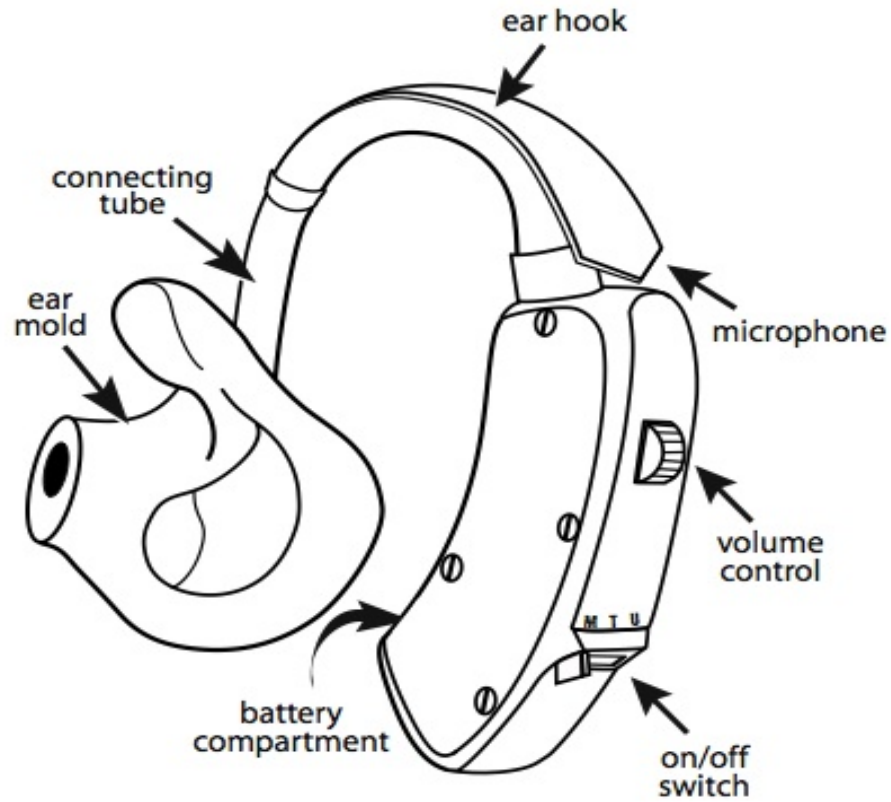


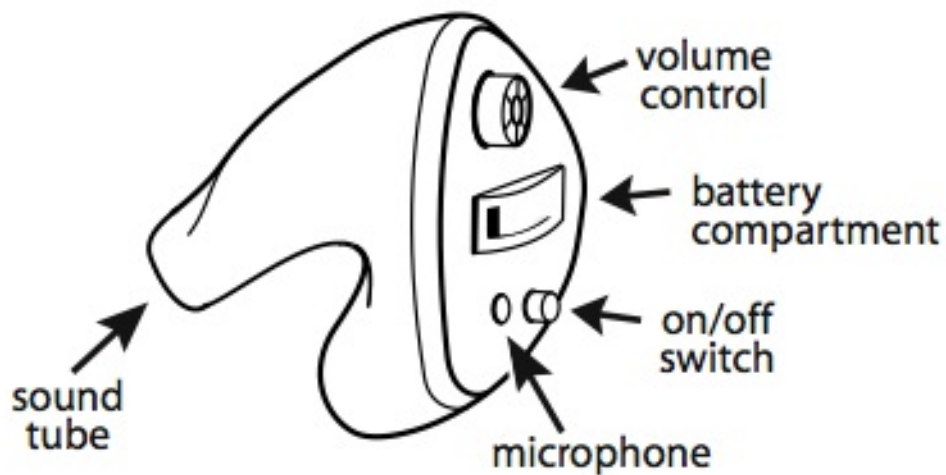
# PARTS OF A HEARING AID

## Behind-the-Ear (BTE)



<http://www.phsa.ca/NR/rdonlyres/48CFDD7E-B52D-4890-88FA-64D63CA777E9/0/BTEhearingaid.jpg>

## In-the-Ear (ITE)



<http://www.bcchildrens.ca/NR/rdonlyres/1E47B20B-D686-44BF-A811-B4AE48E4DCB7/16097/ITE.jpg>

## **Hearing Aid Troubleshooting**

If student reports that the hearing aid is not working:

1. Check to make sure the battery is not dead using a battery tester or putting in a new battery

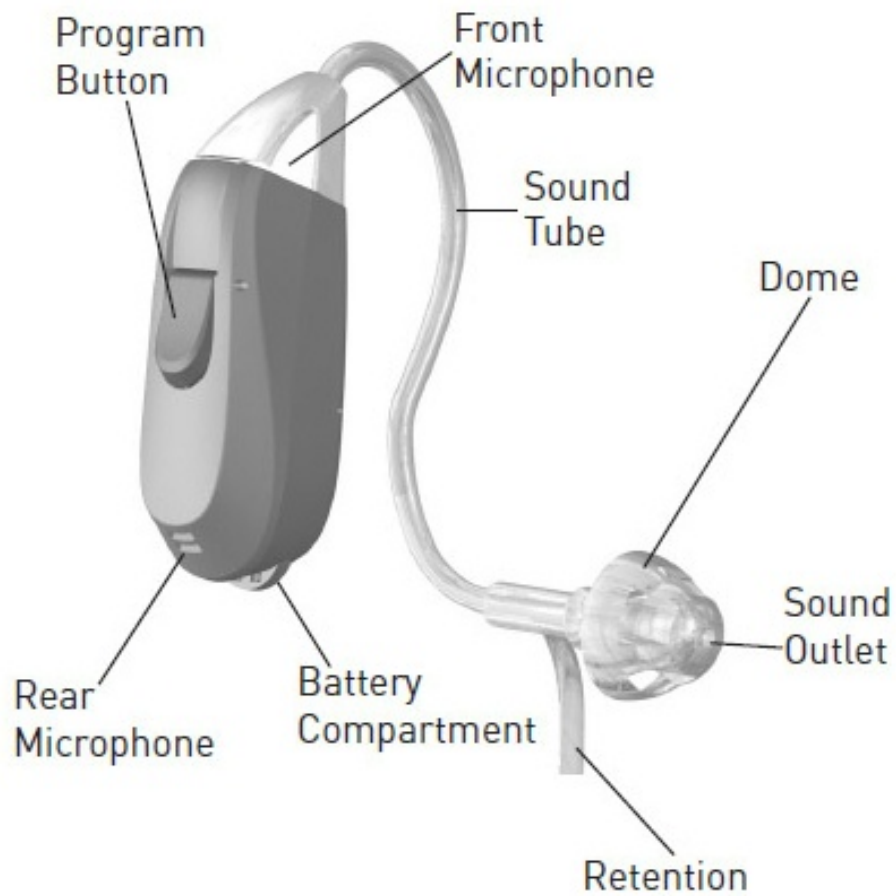
If the battery is not the problem:

1. Inspect the earmold/tubing to make sure there is not any debris or wax blocking any of the openings
  - a. If there is obstruction, use a hearing aid cleaning tool to gently remove debris

If the hearing aid looks unobstructed and the battery is good:

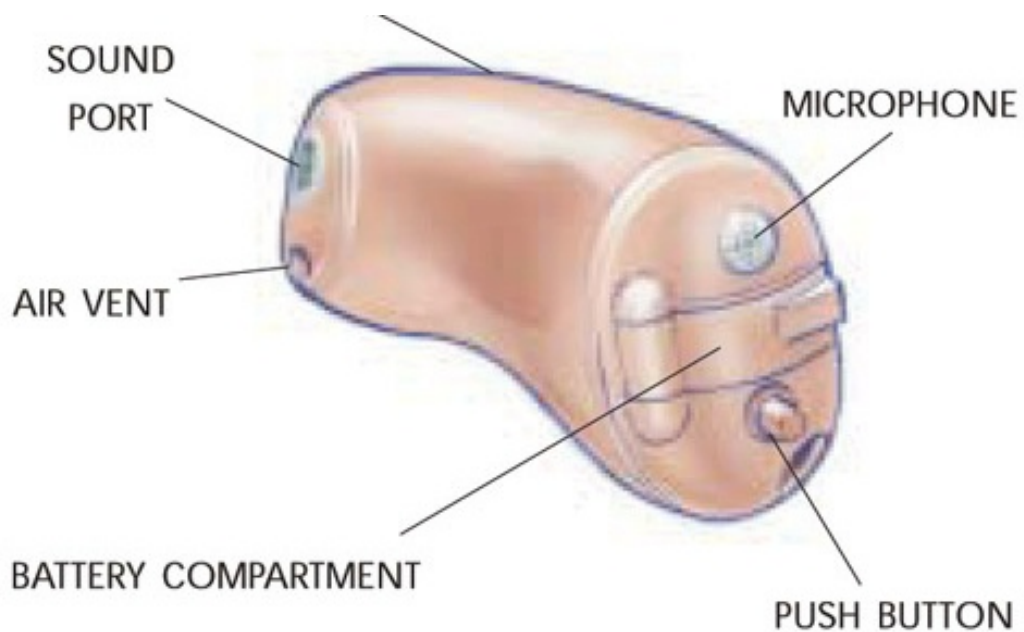
1. Make sure the hearing aid is on the correct setting.
2. Contact your school audiologist if he/she is available
3. Let parents/guardians know that the hearing aid is not working and may need to get sent to the student's audiologist

## Open-Fit



[http://www.hearinglife.com.au/assets/www\\_content/images/hearing\\_aids/HA\\_Parts/OpenFit\\_image.jpg](http://www.hearinglife.com.au/assets/www_content/images/hearing_aids/HA_Parts/OpenFit_image.jpg)

## Completely-in-the-Canal (CIC)



[http://www.hearinglife.com.au/assets/www\\_content/images/hearing\\_aids/HA\\_Parts/MC\\_image.jpg](http://www.hearinglife.com.au/assets/www_content/images/hearing_aids/HA_Parts/MC_image.jpg)

# **What are the different parts of a hearing aid responsible for?**

1. Microphone – picks up the incoming sound
2. Amplifier – increases the volume of the incoming sound
3. Speaker – sends the sound into your ear so that you can hear it
4. Battery – provides power to the electronic parts
5. Push button – changes the program of the hearing aid
6. Vent – allows for natural sound to get to your ear
7. Volume control – gives the patient the choice of turning up or down their hearing aid

## **How we hear...**

Sound is conducted through the air and enters the ear canal. The sound waves travel through the canal and cause the eardrum to vibrate back and forth. The vibration of the eardrum causes the three bones in the middle ear to also vibrate. This vibration of the bones causes fluid in the inner ear (cochlea) to move and be displaced, causing the hair cells to move. The signals generated by the hair cells are sent along the auditory nerve pathway and up to the brainstem and then to the cortex. This allows our brain to interpret the vibrating sound waves into audible sound.

## **Types of Hearing Loss**

1. Conductive Hearing Loss (CHL)
  - a. Refers to hearing loss where the sound waves (vibrations) are being blocked in the outer and/or middle ear before it is able to reach the inner ear. The outer ear includes the visible parts of the ear and ear canal. The middle ear includes the eardrum and three ear bones. The inner ear includes the cochlea.
  - b. Common types of CHL include:
    - i. Ear wax
    - ii. Punctured eardrum
    - iii. Fluid in the ear (ear infections)
2. Sensorineural Hearing Loss (SNHL)
  - a. Refers to hearing loss that is involved with damage to the inner ear, which includes the nerve cells, the auditory nerve, and/or the hearing centers of the brain. This type of hearing loss is permanent because nerve cells are not able to grow back or be replaced. SNHL can range from mild to profoundly deaf.
3. Mixed Hearing Loss (MHL)
  - a. Refers to a combination of conductive and sensorineural hearing loss. Some but not all of MHL may be corrected.
4. Central Hearing Loss
  - a. Refers to hearing loss that occurs because of damage/disease at higher levels in the auditory system (brainstem and/or cortex).