

OFFICE OF DISABILITY SERVICES
INFO PAGE

HEARING IMPAIRED/DEAF

A hearing impairment indicates a hearing loss, which may range in severity from mild to profound, and includes the subsets of deaf, deafened, and hard-of-hearing. A *deaf* person is one whose hearing disability is so severe that, with or without a hearing aid, the person cannot process language or understand speech using only the auditory system. A *deafened* person is one who has suffered a severe hearing impairment after having acquired speech. A *hard-of-hearing* person is one who has some degree of hearing loss, but has sufficient enough hearing to understand speech and to process language with a hearing mechanism. Documentation of a hearing impairment is provided by a physician or a certified audiologist.

There are several dimensions of hearing ability which may be impaired, but the most basic and most often tested are listed below:

Sensitivity- the ability to hear soft or low intensity sounds.

Frequency range-the dimension of low to high sounds, as on a musical scale, which can be measured precisely.

Intensity- the dimension designated in decibels.

A person's **threshold of hearing** is that point at which a person can hear the softest sound of a given frequency in 50% of a given number of trials. This is often referred to as **hearing level**. In the process of hearing, sound waves are collected by the outer ear and passed through the middle ear into the inner ear: there the sound is changed into nerve impulses. The nerve impulses travel through the auditory nerve and are transmitted to several brain levels, then are perceived at the cortex. **Hearing may be impaired because of problems at any point in this process. Conductive losses** are caused when there are problems in the sound traveling to the inner ear from

the outer ear. **Sensorineural loss** results from damage to the cochlea of the inner ear or the auditory nerve to the brain. **Central losses** are the result of damage or malfunction in the brain or central nervous system.

Conductive losses may be transitory or persistent, i.e., acute or chronic, but are never total and can be improved by medical or surgical treatment. **Sensorineural losses** may be total if the nerve is cut or if the cochlea is destroyed by disease or excessively loud noise, and are not often helped by medicine or surgery. **Central losses** may produce difficulty in understanding or processing speech, even when hearing is normal. (Buechler, J. Music Therapy for the Hearing Impaired Children, 1984)

The hearing impaired or deaf student may require a variety of services, including the following: sign language interpreter, real-time captioning, notetaker, tutorial services, testing adaptations, films with closed captioning, or the use of assistive listening devices. Some hearing impaired/deaf students may not require extensive use of personnel, extra funds, or assistance from professors, but may need only minor modifications in presentation of classroom material.

For more information: www.educ.kent.edu/deafed/home.htm or contact your campus Disability Services advisor or the Deaf Services college wide advisor at 475-6766.