

Hearing Instruments

Types of Hearing Instruments

There is no single hearing instrument that is suitable for all types of hearing loss. The type you need depends on your individual hearing loss and the nature of that loss.

The Completely-In-The-Canal (CIC) type of hearing aid fits deeply within the ear canal and is barely visible. Though small, this instrument is very powerful and fits a variety of hearing loss needs.

The In-The-Ear (ITE) model fits within the outer ear, extending into the ear canal. This model accommodates a wide variety of hearing losses.

The Behind-The-Ear (BTE) model is a small hearing instrument housed in a curved case that fits securely behind the ear. It is attached to the earmold by a short, plastic tube. Sound is delivered from the hearing instrument through the earmold and into the ear canal.

Circuit Design and Capabilities

The technical choices in current hearing aids allow the consumer a variety of options. There are approximately 600 models of circuit designs with digital programming and digital processing capabilities, in addition to many non-digital circuit designs. These circuit choices can be categorized into seven technologies.

LINEAR - These make all sounds louder.

TRADITIONAL COMPRESSION - These soften some loud sounds when they occur.

ADVANCED COMPRESSION - There are many special circuits to make hearing aids more comfortable. Your specialist will guide you.

ADVANCED DESIGN NON-DIGITAL - These are unique, newer, more complex circuits that may be "automatic" (i.e. no volume wheel necessary).

DIGITAL PROGRAMMABLE - These higher technology circuits have 1-13 adjustable bands of compression. Often they are automatic and use computers to program different listening environments. Some models use remote controls to provide more direct client control.

100% DIGITAL SIGNAL PROCESSING (DSP) - Audio sounds are digitized and then processed. These types of hearing aids use computers for the fitting process. They contain computer chips within the hearing aid for further processing.

DEEP CANAL - For maximum benefit this circuit depends upon the placement of the hearing aid near the eardrum, which changes the performance of this type of hearing aid.