



Patient Education

Hearing Center

For more information, visit AustinRegionalClinic.com.

ARC Hearing Center Locations

ARC Round Rock

940 Hester's Crossing, Austin, TX 78681 | 512-244-9024

ARC Far West Medical Tower

6811 Austin Center Blvd. Suite 300, Austin, TX 78731
512-346-1311

ARC South 1st Specialty

3816 South 1st St. Austin, TX 78704 | 512-443-1311

How We Hear

In North America, more than 20 million people of all ages have some degree of hearing loss.

Understanding hearing and hearing loss begins by knowing how hearing works. The outer ear collects sound waves and channels them to the eardrum. When sound hits the eardrum, the impact's vibrations cause three bones in the middle ear to move.

The smallest of these bones, the "stirrup," fits into the "oval window" between the middle and inner ear. When the oval window vibrates, fluid in the inner ear transmits the vibrations into the canal of a delicate, snail-shaped structure called the "cochlea."

In the inner ear, thousands of microscopic hair cells are bent by the wave-like action of the fluid inside the cochlea. This sets off nerve impulses into recognizable sounds.

Help for the Hearing Impaired

Analysis of test results will indicate whether the problem can be helped with medication, surgery or amplification by hearing aids. Surgery and medical care can help approximately 10% of all hearing losses. Technological advances mean good news for the remaining 90%, most of who can rely on hearing aids to improve their hearing. Today's hearing aids are smaller, more powerful and more comfortable than in the past. They have better sound quality and are easy to operate. A trial period with hearing aids in real-world situations is necessary and available for all patients considering hearing aid use.

Special Populations

The School Years

The critical learning years demand good hearing. For this reason, periodic hearing screenings occur as early as the preschool level. While hearing screenings are a good first step in the detection process, parents and teachers alike must know a few signs to detect a child who may be experiencing difficulty in hearing. These signs include:

- Inconsistent responses
- Inattentiveness
- A history of middle ear infections
- Speech/language delays

The sooner a child's hearing problem is discovered and appropriately managed the greater his or her chances are for educational success. A child is never too young to be tested. If you suspect your child has hearing difficulties, seek professional evaluation.

The Workplace

High levels of noise often occur in the workplace. Exposure to such noise can result in hearing loss. For that reason, wearing hearing protection, such as ear plugs, is a critical precaution that some workers need to take. In addition to wearing ear protection, periodic evaluation of one's hearing by an audiologist is strongly recommended.

Recognizing and Treating Hearing Loss

Causes of Hearing Impairment

Hearing loss is a health problem for which treatment is available. Most often hearing loss is gradual and painless, developing so slowly it is barely noticeable. At any age, hearing can be affected by:

- Drugs or medication
- Heredity
- Illness or birth defects
- Tumors
- Noise exposure

For more information, visit our website or call us.

AustinRegionalClinic.com | 512-272-4636 (512-ARC-INFO)



Hearing Center

For more information, visit AustinRegionalClinic.com.

Types of Hearing Loss

A person's ability to hear is as unique as his or her fingerprint. Similarly, no two people have exactly the same hearing impairment. Loud noise, inherited medical conditions, childhood and adult illnesses all combine to produce different types and degrees of hearing loss.

From a physical standpoint, there are 3 types of hearing loss.

1. **Conductive hearing loss** is produced by injury to or problems with the middle ear bones or eardrum which carry sound from the external ear through the ear canal and middle ear to the inner ear.
2. **Sensorineural hearing loss** occurs when mechanisms mentioned above are intact, but there is deterioration of the inner ear (cochlea). This consists of damage to the microscopic hair cells inside the cochlea or to the auditory nerve leading from the inner ear to the brain. Damage can result from a variety of factors such as the natural aging process, noise exposure, hereditary factors, ototoxic medications, or a combination of all these.
3. **Mixed hearing loss** is a combination of the above two.

Symptoms of Hearing Loss

Recognizing hearing loss in yourself or someone you know is the first step toward improving the situation.

Symptoms of hearing loss may include:

- Sensitivity to loud sounds
- Difficulty in hearing distant sounds, such as in large meetings and places of worship
- Difficulty hearing the television and telephone
- Difficulty understanding group conversations
- Consistent speech difficulties in children, or those who seem slow to understand when spoken to
- Adults avoiding group meetings, social occasions or events where listening may be difficult or where one may feel embarrassed about misunderstanding what is being said.

Who to See

If hearing loss is suspected, 2 appointments are necessary.

1. **First appointment is with an audiologist** for the purpose of testing and evaluating hearing abilities. Testing is painless, comfortable, and safe. It includes recognizing everyday words at different volume levels and detecting various tones. A person's ability to hear each tone produces a unique hearing pattern which is recorded in the form of an "audiogram" which can be used to determine the type and severity of the hearing loss.
2. **Second appointment, after audiological evaluation, is with an otolaryngologist** (ear, nose and throat physician) to determine if there are any medical considerations surrounding the hearing impairment.

Hear the Most Out of Life!

The audiologists at Austin Regional Clinic's Hearing Centers provide a full range of services for adults and children. This includes audiology testing and the fitting and dispensing of hearing aids.

If hearing aids are recommended following a full audiological and ontological evaluation, a hearing aid consultation is scheduled. At this appointment the patient learns about the amplification options that are available based upon his or her audiogram.

If hearing aids are ordered at this time we will schedule a hearing aid fitting approximately two weeks later. The patient then begins a 30-day trial period which includes any adjustments that may be needed to ensure success with the hearing aids. If, after the trial period, the patient is dissatisfied with the hearing aids, they may be returned and the purchase price of the aids refunded.

Please call for questions concerning our policies on hearing aids and other assistive listening devices. We want to help you hear the most out of life!

For more information, visit our website or call us.

AustinRegionalClinic.com | 512-272-4636 (512-ARC-INFO)