

high-level digital product, your provider has great control of TransEar through its programming interface, ensuring a comfortable fit for you.

I wear an open-canal hearing aid on my “good” ear because of my high-frequency hearing loss. Does this mean I’m not a candidate for TransEar?

A loss of high-frequency hearing in the “good” ear is usually not a problem, because bone conduction’s frequency response drops off quickly starting at 2000 Hz.

How about microtia and atresia?

Because a normal ear canal and pinna are required, TransEar is usually not indicated for these conditions.

My audiologist has mentioned CROS hearing aids. Should I consider TransEar instead?

If your hearing healthcare provider has mentioned a CROS aid, you are probably a good candidate for TransEar. However, if BI-CROS aids are recommended (in order to amplify the better ear), you may be out of the fitting range for TransEar. Ask your provider about TransEar, and he or she will be able to determine if TransEar is a viable option for you. (We’ll be happy to send your provider complete fitting information in order to help him/her make that determination.)

Is this device based on the power ITE transcranial CROS idea?

No. A power ITE (or BTE) is inherently inefficient for bone conduction, because much of the energy from the high sound pressure levels is lost during the conversion of acoustic

energy to force energy. There are a number of potential side effects from using air conduction aids for bone conduction, among which are feedback and vestibular issues in some patients. By utilizing direct bone conduction, TransEar is a more efficient instrument.

The primary difference from other such direct bone conduction devices, including headbands and the surgical BAH procedure, is that TransEar uses the osseous portion of the *ear canal* to directly conduct oscillations from its vibration transducer through the skull to the good ear. The distance is therefore shorter, and the efficiency of the force transfer is limited only by the very thin (0.2 mm) layer of skin in the portion of the canal just past the second bend. This 3/8” is TransEar’s “sweet spot,” and that is why we require impressions that extend as far past the second bend as possible.

Will TransEar 270 be visible in my ear?

Barely. The original version of TransEar used a larger oscillator in a full shell, but TransEar 270 is much smaller and is almost invisible from most angles. The faceplate – the visible portion in the ear – has a flat, non-reflective finish and does not have the controls and knobs that can make a traditional hearing aid noticeable. It is available in three colors: tan, pink/chameleon (ideal for pink or ruddy complexions), and medium brown. The new small, clear connector wire is barely visible.

Is TransEar appropriate for children?

It depends on the size of the ear canal and the maturity of the child being fitted. TransEar’s transfer unit must reach past the second bend in the ear canal, so the child must be able to tolerate a deep-canal impression and accept the presence of a hard plastic shell in the ear.

Some large children have small ear canals, and the opposite is also true, so there is no “one-size-fits-all” answer. Once we receive the required impressions, we can easily determine who is not a candidate. TransEar is not indicated for infants, but there have been a number of very successful fittings of school-age children.

But my child’s ears will grow. What then?

As a child grows, the transfer unit and connecting wire will eventually become too small and replacements will be required. Ear Technology’s philosophy is to provide re-sized transfer units to children at only modest cost.

What does it cost?

Ask your hearing healthcare provider. TransEar is usually priced at the same level as a sophisticated, full-featured digital hearing instrument. If you choose TransEar, you will have a free trial period to help determine if it provides the benefits you desire.

How do I get a TransEar?

TransEar is available through hearing healthcare professionals. If your provider is not familiar with TransEar, we’ll be happy to send him/her a complete fitting packet. (TransEar has not been available for long, so it is not surprising that many providers are just now hearing about it.)

If you do not have a hearing healthcare provider and need a referral, contact Ear Technology by email at info@transear.com or by phone at 1-888-ETC-XEAR (1-888-382-9327), and we may be able to assist you in finding a provider in your area.


For Single-Sided Deafness



For Single-Sided Deafness

Frequently Asked Questions



Ear Technology Corporation
P.O. Box 1516, Johnson City, TN 37605
1-888-382-9327
www.transear.com

360° of Sound... 360° of Life.sm

What exactly is TransEar®?

TransEar is a bone conduction hearing instrument designed specifically for unilateral hearing loss, often called single-sided-deafness (SSD). It consists of three parts:

- a small but sophisticated behind-the-ear digital hearing aid, which is joined by ...
- a thin flexible connector wire to ...
- a “transfer unit” – a small custom acrylic half-shell which contains a miniature oscillator.

These components are fit on and in the ear that has no hearing. Using bone conduction, the oscillator conducts vibrations across the skull to the good cochlea on the other side. The current TransEar model is 270.

How does TransEar work?

Sounds from the non-hearing side are picked up by the microphone of TransEar’s digital processor. Unlike a traditional hearing aid, which amplifies sound and passes it to a small speaker, TransEar’s processor converts sound into electrical energy, which drives a small electro-mechanical oscillator which is placed near the canal tip of a small acrylic shell (referred to as a half-shell in the hearing healthcare industry). The transfer unit is custom-made by laser to exactly fit the user’s ear.

The oscillations are transferred by the boney portion of the ear canal, through the bones of the skull to the good ear, where the cochlea processes the energy which the brain interprets as sound.

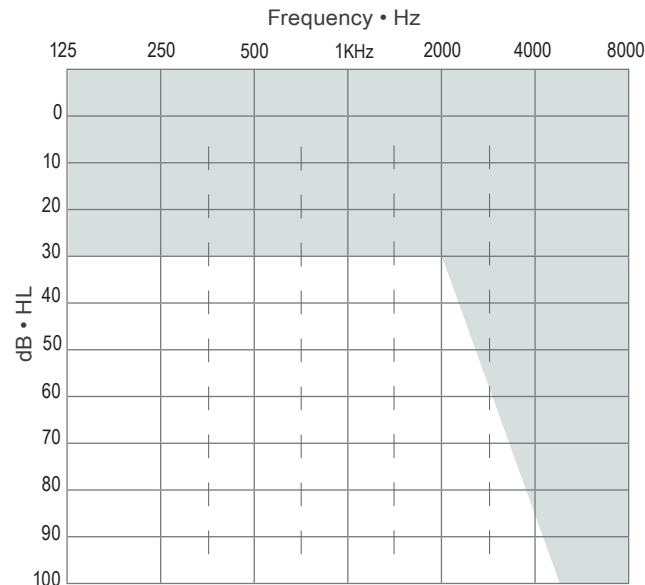
Will TransEar work for me?

If you have a normal, non-draining ear canal on the dead side and good hearing on the other

side, TransEar should work well for you. The “good ear” should show no greater than 30 dB of sensorineural loss through 2000 Hz.

Your hearing healthcare professional will evaluate your hearing in both ears and will compare that against TransEar’s fitting range. Each patient’s physiology and medical conditions may also be factors in the fitting.

AUDIOGRAM



Shading represents threshold range for the “better” ear.

Important note: Because there may be an underlying condition requiring medical treatment, it is important to report the onset of SSD to a medical professional such as an ENT doctor or otologist for a thorough examination. Your doctor may in turn work with a hearing healthcare professional to determine if TransEar is appropriate for your type of hearing loss and medical considerations.

“ Thanks for all of your help. I got my new wire today and it works great... I really felt half deaf this week. I don't feel that way when I'm wearing the TransEar. I think my brain has adapted to it because it seems to work better now than when I first got it. ” ~J.N., Michigan

I have a conductive loss. Can TransEar help?

Yes, but with a narrower frequency response than high-powered air conduction hearing aids. Please ask your hearing healthcare provider.

How well will I hear on my deaf side?

Every user’s experience is different, but many report that they are able to locate the direction sounds are coming from, and almost all can put a telephone to the dead ear and hear the dial tone. In quiet conditions, most can carry on a phone conversation using the aided ear, and whispers can usually be heard from the TransEar side. Some users experience these benefits immediately, while others go through a period of gradual improvement, as the brain learns what it is like to receive input from both sides once again.

It is important to note that before your loss, you heard with both ears. Consequently, plugging up your good ear (except while being tested by your provider) is not a good way to measure TransEar’s effectiveness during normal wear. Over time, you will notice many situations where your hearing loss would have created problems for you before you received your TransEar, and those around you will notice even more!

Will I feel the vibrations in my ear?

With a properly fitting transfer unit, few users feel the vibrations.

Will TransEar be comfortable?

Yes, but some adjustment might be needed. Although custom fit to your ear, a typical ear canal can change shape due to movement of the jaw when chewing, yawning, or talking, and this movement can cause discomfort in some people. If you are one of them, your provider will modify the shell to remove the pressure point, and in extreme cases this might take more than one visit. Such modifications can be done quickly, while you wait. Once modified, most users forget TransEar is even there.

TransEar also offers several other sophisticated features, including adaptive noise reduction for use in places such as restaurants. The potential for feedback is reduced or eliminated for most users, since TransEar 270 is so much smaller than the original model. Our new miniature oscillator – a TransEar exclusive – can be placed deeper in the shell, which puts it much closer to the boney portion of the ear canal where TransEar does its work. And, our new soft connector wire – also unique to TransEar 270 – stops the transfer of vibrations from the transfer unit to the processor’s microphone.

This combination eliminates feedback for most users, allowing greater gain without annoying side effects. Because it is a

