

The Southside Scene

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In the Livingston Health
Services Building

Welcome to our newsletter! We hope you will find the information it contains to be helpful, and encourage you to pass it along to friends or family members who might also benefit from it. Please feel free to suggest topics for further newsletters – call us or let us know at your next visit!

Back Into the SPRING of Things!

Well SPRING is always an exciting time of year, and it's no exception here at Southside Hearing Center! Most of you have asked about the BABY...so I'll update you on her first (but you better read beyond the Marena update!)

Marena will be 1 in May. Of course everybody says how hard it is to believe or how time flies. True, true, true. It has been a wonderful year and, yes, being a Mom IS harder than being an audiologist! Marena is on the verge of walking. Perhaps even by the time you receive this newsletter she could be off and running. She is "talking" up a storm, and has managed to get a few words out that most one year olds will, such as Ma Ma, Da Da, Ba Ba, Hi and Bye. She seems to know how to use a TV remote control quite well, and has managed to mute the TV at key moments, or turn it up so loudly you need earplugs. She has figured out that the green button turns the TV on and off. Marena loves hockey also, just like Mom and Dad. We have season tickets to the Amerks and she goes to every game. She seems to know when to cheer and clap appropriately when we score! She seems to be the source of entertainment as well for many within our section of seats. All too often friends miss the goal because they were watching Marena and not the game.



Miss Marena

Needless to say, Marena is an absolute love of ours (and very spoiled), and it already is hard to remember life without her. We are extremely blessed to have her!

We have started our seeds for the upcoming gardening season. We can't wait to feed Marena the fresh veggies from our garden this year! I cannot wait to talk gardening with you. I always learn so much from you!

Spring always promises to be a busy time of year at the office. I will be heading to Denver in mid-April for the American Academy of Audiology's annual national convention. There, I expect to learn more about the newest in technologies in hearing aids, assistive technologies, and test techniques. Grand Rounds of case studies are always useful and helpful. Convention is always exhausting, but so fulfilling professionally. It's always nice to catch up with college friends and past colleagues. Denver in April should be wonderful as well!

If you're at all curious if I find new secrets to hearing aids and hearing loss at convention, give us a call after the end of April, and see if there's anything exciting I can share! ■

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Sue Says...

Sue Says.....Can You Hear at Your Church?

Many of my patients complain that they do not attend church, or have difficulty following the sermon because they cannot hear well. This often discourages a person and keeps him/her from participating as regularly as (s)he might have in the past. I am often at a loss as to how to help the patient because I am generally unaware of what systems the area churches may have specific to those who have hearing loss. Interestingly, I find that many of the patients themselves are unaware of any systems that may be available, or how to use them if they are.

Because of this concern, I did a recent survey of area churches, wondering what systems they might have to aid those who have hearing impairment. My goal was to objectively compile this data and share it with patients, so that they know if their church has a system that can help. I also offered my advice to those churches that indicated that they had any questions or needed more information. I sent out over 100 surveys in early February. To date, I have received just under 20 back. This is a somewhat disappointing number; but the ones we did receive back are wonderfully helpful and we have compiled their responses to our questions. See the chart on the insert **(please note that the chart reflects actual responses by the church representative and have not been altered or interpreted by us).**

If you do not see your church, please ask if they received my survey. If they have, ask them to return it to us so that we can add them to the chart so other members of the congregation (that happen to be my patients) can be aware of any help the church may offer for their hearing loss. If they did not receive the survey, have them call our office and we can ask them the simple questions by phone. ■

Technology Update: Definitions of Assistive Listening Technologies

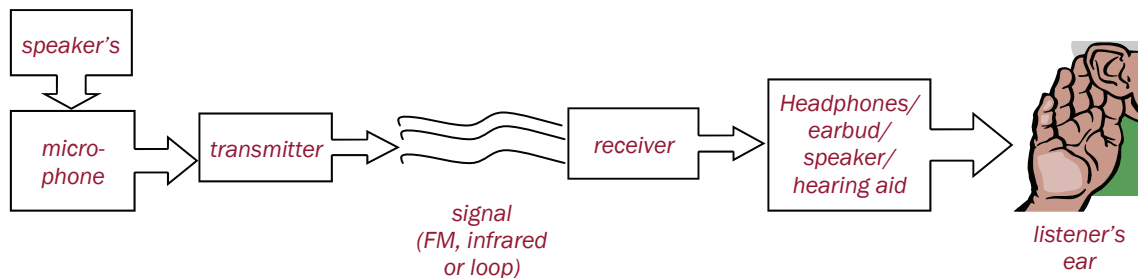
In this issue you are seeing a compilation of listening systems for those who have hearing loss for area churches. I am betting that many people do not quite know what the definitions of the types of systems that are used are. Therefore, this segment will discuss the definitions of those systems.

There are multiple types of Assistive Listening Technologies. Each is designed to bring the information that is being spoken or played over a sound system directly to your ear. The terminology used to describe each system generally refers to the method in which the signal is sent from one place to the next. The options usually include FM, induction loop, and infrared.

In every situation, regardless of the technology used to send the signal, the incoming information must be amplified and transmitted. So, first, the information goes through a microphone, is amplified, and then into a transmitter (think of a transmitter as a signal sender). The transmitter converts the information into a type of signal and then sends it. This is where the FM, Induction loop, or infrared is referred...the type of signal (or messenger).

- FM stands for Frequency Modulation. Think of it as a radio signal, but at different “channels” than your standard radio channel or frequency (i.e.101.3). Baby monitors use this technology.
- Induction loop refers to a signal that is converted through magnetic induction, usually a “magnetized” wire.
- Infrared refers to a signal that is sent through a form of “light beam” that is infrared. Light beams are different wavelengths, and therefore different “frequencies”, which is what sound is all about.

(Continued on page 3)



Technology Update: Assistive Listening Technologies *(Continued from page 2)*

So the signal is sent through a microphone, amplified and converted to a type of signal. That signal then needs to be “received” by something that knows how to read the signal and convert it back to sound as we know it. The part of the system that does this is the “receiver”. After the signal is received from the transmitter (sender), the information must now be delivered to the ear to be heard. This can be done in multiple ways:

- A headset (or earbud) can be plugged into the receiver, and the sound can be heard. This is the typical way to use an FM system, or infrared system. Large speaker systems can even be used (although not common).
- A device that “reads” the magnetic induction is required for the loop system. The most common device is a hearing aid that has a telecoil (often called “t-coil”, or phone program). It is a special circuit within a hearing aid that is able to “read” the signal. Not all hearing aids have t-coils, especially in-the-ear (ITE) hearing aids. Not all t-coils are strong and clear, unfortunately.

FM systems are perfect for groups of people that have generally mild hearing losses and may or may not wear hearing aids; and for various sized spaces such as church sanctuaries, meeting rooms, and auditoriums. The FM signal can travel through walls, sometimes for impressive distances. Other FM signals are common and a system may experience interference from other transmitters. The FCC regulates which frequencies are used for various types of signals, i.e. public radio versus police radio versus personal use systems and baby monitors; however some interference can occur. Newer FM systems have the capacity to change the “channel” if interference occurs. Unfortunately FM systems as a whole are limited to the number of headsets/receivers that are purchased for the system. A person who wears a behind-the-ear (BTE) hearing aid may be able to purchase a special FM receiver boot for their hearing aid so that they can receive the FM signal through their hearing aid. This is not available for all BTEs, and not at all available for ITE hearing aids.

The infrared system is less common, but may be found in movie theaters, playhouses, and music halls. The signal is often excellent quality, but the infrared beam is much more limited in distance than FM, and is often interfered with by objects, walls, and other light sources. It, too, is perfect for those who have mild hearing loss who may or may not wear hearing aids. The system is also limited to the number of headsets or receivers that are purchased for the system.

The induction loop system is typically perfect for those who have greater degrees of hearing loss, and require use of hearing aids (think more severe losses, but not limited to such). The loop system is available to those who sit within the confines of the magnetized wired. The wire is often hidden under carpeting or flooring. It can encompass whatever area is desired. For instance some churches will choose to loop an entire sanctuary, and others choose to loop only certain segments of the sanctuary. Looping an entire sanctuary allows people to sit wherever they like and still benefit from the use of the system. Of course it can be more costly. Ideally, if only a segment of an area is looped, it should be in a location of the room that people using the system can benefit from visual cues and the public address system since their hearing aids may offer the option of using the hearing aid microphone plus the t-coil simultaneously. A nice feature about this system is that an unlimited number of people can use this system at once.

Individual induction neckloops also exist. This allows a person to have a loop receiver and wear it anywhere within “range” of the loop transmitter. Just as with the large loop, the person will need to have a hearing aid that has a t-coil. Like the individual headsets, use depends on the number of receivers/neckloops purchased.

The problem with any one of these systems is that a system can exclude a population of people with different degrees of hearing loss. A person who does not wear a hearing aid may not be able to use the loop system. A person who has a more severe hearing impairment may not be able to use the FM or infrared system simply because it may not be powerful enough.

A solution to the above problem is through special receivers that receive FM signals and then convert to magnetic induction. This enables those who wear hearing aids with t-coils to use the FM system while wearing their hearing aid. This is particularly helpful for those who have ITE hearing aids with t-coils, and are not able to use FM boots like the ones described above. These special receivers also allow for use with a headset for those without hearing aids, and can receive almost any FM signal. These hybrid-type receivers are versatile and offer a reasonable solution to the problem of excluding groups of people with the various listening systems. They are, however, quite costly. The number of units required would be based on need.

The world of assistive listening technology for large groups can be quite confusing and intimidating, and is therefore often not used or not used properly. Even as an audiologist, I find it difficult to keep up with the changes and adaptations of the technologies. I am hoping that this discussion helps clarify questions that may exist; and if you are in a position to make choices about assistive technologies you can feel educated about your options. ■



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*Discovering the Human Touch in Hearing
Technology*

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Happy Spring
from
Sue and Kathy !