

My Point of View on ALDs, T'Coils and Loops by Ed Schickel

This month the LayPerson's Guide contains some videos on Loops and T'Coils (T'Coil, T-switch, Telephone Switch are all the same thing). The T'coil is a very old device contained inside the hearing aid (HA). It's been around in some format since the 1940's. It has received a lot of attention recently because of the looping movements. Basically, the T'Coil is a very tiny electromagnet that can be activated by other magnets. The magnet inside of your phone can activate the coil and produce sound in your hearing aid and then into your ear. Users will often say that it seems someone is in your head talking to you because there is no other ambient sound. Your hearing aid microphones are turned off. Ear molds block other ambient sound from your residual hearing. It is neat. It is wonderful.

Loops are electromagnetic fields which can also activate the T'coil. Simple copper wire wound around a room and attached to an amplifier and PA system can carry sound directly to the T'Coil without the ambient noise. The hearing aid then adjusts the sound to your prescribed hearing loss. As was stated, the sound can be wonderful.

Basically, as I understand it, there are two kinds of loops—Perimeter and Phase. Perimeter loops are just that. A copper wire surrounds a room, chair or auditorium. It creates a horizontal plane loop. (Think of plane Geometry. Think a sheet of paper.) The phase loop is a series of wires woven throughout a room etc. creating an electromagnetic cube. (Think Solid Geometry. Think a box.) This is the better of the two. In order for the T'Coil to be effective, it must be perpendicular to the telephone or loop. If it is not perpendicular, there will be no sound or a buzzing interfering sound, static. With the phase loop, the T'Coil is always perpendicular because the field is box shape. Thus any angle of the T'Coil is perpendicular to the box shape field.

As I said this is a wonderful Assistive Listening Device. When it is properly installed and maintained, it is probably second to no other current ALD. For the HOH person, the cost is almost zero. Most of the larger hearing aids already contain a T'coil (A minimal distance has to be maintained between the coil and the HA microphone. Thus, the need for a larger HA). Walking into a looped room, the HOH person switches to the T'coil and begins to hear only the sound which comes through the room PA system. It is quick, unobtrusive, private (no one knows that you switched), and most of the time it has an excellent sound quality. A sound quality dictated by the hearing aid. The primary cost is the installation in the room.

Like every Assistive Listening Device, there is a downside. The initial cost of installation can be prohibitive except in new construction or remodeling. The loop is an electromagnetic field. The T'Coil is an electromagnet. Thus, any other electromagnetic field can impact both. A light switch, a motor, or light transformer that is going bad can create a countering electromagnetic field and cause a buzz in the hearing aid. Steel beams and concrete reinforcement rods have their own fields. Most of these issues

can be overcome with a good installation and ongoing maintenance. Sometimes it is very difficult to find the offending culprit. The motor or light might not be on when the maintenance check is run. The offending field can be intermittent. Some environments because of multiple offending fields just do not lend themselves to a loop system.

There is a good and positive movement throughout the country to loop all or most public venues. This is appropriate. At the same time HLAA and HLAA Chapter Members need to be very careful with its promotion. It is a mandate of HLAA not to promote one ALD, one hearing aid etc. over another. It is important that HLAA maintain some neutrality. Describing the pro's and con's of all devices without promoting one over another is a very difficult task especially if I truly like and favor one particular device. My fear is that this is happening with some members and some chapters.

What is the harm of promoting something that works? One, bias can be an issue. I debated an HLAA member who was promoting loops in theaters—a good and somewhat reasonable goal. However, his purpose was based on the fact that his personal telecoil would not work with an FM or Infra-red system and a neck loop. (A neck loop works similarly to a room loop.) It would work with a floor or room loop—a somewhat reasonable response. However, he was attacking theater owners but never considered going back to his HA manufacturer regarding an improper placement of the T'Coil inside of the aid. To promote a loop as a possible cost effective, customer satisfying ALD is one thing. To promote for personal issues is another. Not understanding the limitations of loops is another issue. One woman advocated for installing loops in a cell phone store. Such is probably not a good location for loops. All ALDs should be presented and their positive and negative aspects must be described.

We must keep in mind other factors as well. If we overly promote one ALD over another, then we retain some responsibility for issues. If there is an unhappy theater goer, the theater management will refer him to those who pressured for the particular ALD. If HLAA, as an organization representing people with hearing issues, says one ALD is superior to others and demands it, then where is the incentive for inventors to develop an even better product. "This is what HLAA wants." In that sense, we could become our own worst enemy.

It is important to remember that all ALDs are wonderful. All ALDs have problems. All ALDs help. All offend someone in some place. Loops are a very good ALD in the right environment. FM, Infra-red, and Bluetooth ALDs are also very good in their environment. What is good in one environment is not necessarily good in all environments. What is good for me is not necessarily good for everyone.