

Finding Hearing Aid Compatible Cell Phones

© November 2006 (revised May 2008) by Neil Bauman, Ph.D.

Question: How can I tell which cell phones will likely work the best with my hearing aids?—A. K.

Answer: I think what you are really asking is, "Which cell phones will not cause interference when I use them with my digital hearing aids (and/or cochlear implants)?"

As you may know, digital devices such as cell phones and computers give off various kinds of radio frequency and electromagnetic radiation. As a result, when you hold a cell phone (or other wireless device) up to your hearing aid or cochlear implant, you often hear annoying interference. This interference is typically a buzzing, humming, or whining noise that can make understanding speech difficult, if not impossible to understand, not to mention being extremely annoying. In severe cases, interference makes your cell phone completely unusable to you when you are wearing your hearing aids.

Fortunately for us here in the USA, in the last few years the FCC (Federal Communications Commission) has mandated that cell phones be rated as to how much interference they are likely to cause to hearing aids. The FCC defines Hearing Aid Compatibility (HAC) for cell phones in terms of radio-frequency (RF) emissions—the "M" (microphone) rating, and telecoil coupling—the "T" (t-coil) rating.

The rating scale ranges from 1 to 4. The four possibilities are: M1 or T1 (poor), M2 or T2 (fair), M3 or T3 (good) and M4 or T4 (excellent).

Only phones rated 3 or 4 are allowed to be sold as hearing aid compatible (HAC). Phones that would have only been rated 1 or 2 are deemed unacceptable.



To know whether a particular cell phone is hearing aid compatible, look for the icon on the left. This icon not only indicates that this phone is hearing aid compatible, it also shows the level of compatibility for both "M" and "T" settings.

"M" (Microphone) Rating

Since September 2005, cell phone companies have been required to provide several models of cell phones that are rated as being hearing aid compatible when used with hearing aids in the standard microphone setting (M3 or M4).

Thus, if you use your cell phone while wearing your hearing aids in the microphone ("M") mode, look for one that is rated M3 or M4. (M4 is better.) This does not guarantee that these phones will be interference-free with your specific hearing aids. However, the higher the rating, the less likely you will be to experience interference. Also, note that just because a cell phone is not rated does not mean it will cause interference—they may or may not—but unrated phones are much more likely to do so. (How much interference a cell phone causes depends to a large extent on the transmission technology used: i.e. CDMA, iDEN, TDMA or GSM with CDMA being the best and GSM the worst.)

"T" Telecoil Rating

Since September 18, 2006, cell phone companies have been required to provide several cell phones that are rated as being hearing aid compatible when used in t-coil mode (T3 or T4).

Therefore, if you use your cell phone while wearing your hearing aids in t-coil ("T") mode, look for a phone that is rated T3 or T4. (T4 is better.) Again, this will not guarantee that these phone will be interference-free when using your t-coils, but the higher the rating, the less likely it is that you will experience interference.

Note that phones rated as T3 or T4 must also be rated either M3 or M4. Therefore, phones rated as good for t-coils will also have been rated good when used with hearing aids in the microphone mode.

Possible Ratings for Rated Phones

There are only 6 possible ratings allowed by the FCC for cell phones rated as being hearing aid compatible (HAC). The phone could be rated (from worst to best):

- M3
- M4
- M3/T3
- M4/T3 (or M3/T4)
- M4/T4

Phones rated M4/T4 have the best chance of being interference-free whether used with your hearing aids in microphone or t-coil mode.

Hearing Aid Immunity Rating

Cell phone interference is only half of the equation. Few people realize that hearing aids also need to be designed to be resistant to radio frequency (RF) interference (such as is generated by a cell phone).

Although not currently mandated by law, hearing aids also have the same rating scale: M1-M4 and T1-T4. Currently a number of digital hearing aids have an M2/T2 rating. However, you need to be aware that not all new hearing aids use RF-immune components. The more immune your hearing aid is, the less likely you are to experience interference from cell phones in the first place.

If you want to know what your hearing aid's immunity rating is, ask your audiologist. If he/she doesn't know, they can ask the manufacturer on your behalf.

Putting It All Together

In order to know how well your hearing aids will work with any given cell phone, add your hearing aid's immunity rating to the rating of your proposed cell phone. The higher the combined rating, the more likely you will have interference-free use.

Here is how the results stack up.

Combined rating 4: Considered "usable." "Usable" means that someone could successfully complete a brief phone call, but this would not be acceptable quality for normal, regular phone use.

Combined rating 5: Considered "normal." "Normal" means acceptable for normal, regular phone use.

Combined rating 6: Considered "best" or "excellent." This rating would provide highly useable, excellent performance.

At present, it would be ideal if your hearing aids were rated M2/T2 and your cell phone was rated M4/T4.

Even though these ratings are an excellent start, unfortunately, for some reason they do not cover all sources of interference. For example, t-coil users may also experience magnetic interference which originates from the cell phone's electronic components such as its backlighting, display, keypad, battery and circuit board. In fact, the backlight on the display and keypad of some phones can cause a lot of interference.

Therefore, if you are going to use your cell phone with your hearing aids in t-coil mode, check out whether the phone you are considering causes interference from these sources. If so, see whether you can turn off the backlight to eliminate this interference. On some phones you can, but for others, you can't. If you can't turn of the source of interference, look for another phone.

It is up to you to try the phone out at the phone store and see how well it works for you with your particular hearing aids. Company-owned phone stores are required to permit this. Ask to try out the phones you think you would like, and see how well they work with your hearing aids in both "M" and "T" modes.

Note: if the phone store is near a cell tower, the phone you are trying out will put out less power, and thus may cause little or no interference, but when you are at some distance from a tower, this same phone will put out more power, and thus may cause interference. Therefore, a phone that works for you in the store, may not be suitable where you live. That is why you want to be sure you have 10 days or two weeks to return the phone for a full refund if the phone proves unacceptable in real life.

Shopping On-Line

If you would rather search for hearing aid compatible phones over the internet instead of struggling to hear the salesperson in a crowded phone store, there are three excellent sources of information.

[Phone Scoop](#), in addition to providing detailed information on the various cell phone models, also provides an easy means of searching for phones with your desired HAC rating.

On the Phone Scoop website click on "**Phone Finder**" (on the left), then click on "**Show all options**" (4th paragraph down), then scroll almost exactly half way down the page to the heading "**Hearing Aid Compatible.**" Click on the check-box beside the rating you want, then scroll to the bottom and click "**Search.**" I'd suggest you check the last box (M4/T4) to get a list of the most hearing-aid compatible phones.

This search will, at the present time, turn up a good number of phones that have an M4/T4 rating. Unfortunately, it only displays the top 20 phones, so you may have to resort the list to see other phones further down in the results.

[Andrews Worldwide Communication](#), provides an easy checklist so you can choose the desired features you want on your new cell phone. They have just added a new feature to this checklist—**Hearing Aid Compatible** (the check box for this is "**Hear Aid Comp**") that will list all the phones that have the M4/T4 rating, thus indicating these phones are the most interference-free phones for hearing aid wearers. (Coming soon will be phones with the lesser M3/T3 rating as well.) I like this site as it is so easy to select what features you want—then lists all the phones that meet your requirements 20 per page. As of May, 2008, they list 34 phones that are M4/T4 compatible.

If you are only looking for hearing aid compatible phones, you can also check out [My Rate Plan](#). At the time I revised this, MyRatePlan.com listed [90 phones](#)

[that are rated as being hearing aid compatible](#). Unfortunately, there is no explanation as to what "hearing aid compatible" means, so you don't know whether the phone is rated M4/T4 or not. The M/T rating is not given in the detailed listing of each phone either.