

The Problem: Muffled Sound

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Lately when I'm with groups of friends there is an increasing chance that some subset of people will complain to me about how bad TV and DVD sound is getting, and how hard it is to at times to understand the dialog. I have been noticing this myself and decided to try to understand what is happening. There are several things going on, all of which conspire against us.

1 – As we get older our ears become less able, especially at higher frequencies. This is called Presbycusis, and there is good information on it on the web. Coming from Bell Labs, I learned about this almost 50 years ago, but I never thought it would apply to me!

2 – Many of the newer flat-screen TV's have very small bezels, and hence have small speakers or worse, put them at the sides or rear. When we put these sets in cabinets, or bookcases, the sound – especially the high frequencies, gets absorbed in the cabinets.

3 – Many DVDs have a very large dynamic range, the difference between the softest and loudest parts. Hence, in order to avoid being blown away during a car chase or explosions, we lower the volume overall. Then at the dialog passages, the sound is too low for our older ears.

4 – Many new DVDs are encoded with multi-channel sound. When you play the DVD, you probably have seen the setup menu where the multi-channel options are labeled with terms such as: 5.1, 6.1, 7.1, DTS, THX, etc. This refers to the number of channels of sound that are in the film, if you have the equipment to decode and the right number of speakers. (The .1 represents the sub-woofer channel.) One of these channels is the center channel that usually carries most of the dialog.

If you have made an incorrect selection on the DVD setup menu or an external amplifier, and are trying to play back multichannel sound through a system without all the multi-channel speakers, you will miss a lot of the audio. If you are watching a movie through an ordinary TV without multi-channel sound capability, be sure to pick the appropriate audio option on the movie setup menu.

Some Solutions

There are some ways around these problems:

1 – Many people use a product such as "TV Ears" which wirelessly puts the sound into stethoscope type earphones that they wear. I have tried these, and they work extremely well. However, they are expensive and I have found them to be mechanically fragile. I have already had to repair two sets for friends – both failing in the same way.

(Perhaps newer models are better made.) Two people would also require two sets. Be sure that you understand where the base station will plug in to your system in order to broadcast the audio to the stethoscope part.

2 – Several of my friends have supplemented the flimsy and poorly aimed speakers in their TVs with sound bars such as shown in the figure below. This is a Vizio model available from Wal-Mart for about \$100. This does not solve the multi-channel problem, but for one or two channel sound, with the speakers facing the listener, they work amazingly well.

In my experience, good one or two channel sound is far superior to poor multi-channel sound. I heard this particular sound bar unit a few nights ago and I was amazed at the clarity. It is an active speaker, meaning that it has its own small amplifier built in. It can receive audio input from your DVD player or your TV set via red (right) and white (left) type of standard RCA cables. Some sound bars also have digital inputs for more complex setups.

3 – If you use an amplifier to drive a multi-channel speaker system, make sure that the center channel speaker is aimed, directly firing at the listener. Also raise the treble to make up for your possible high frequency loss from Presbycusis.

Finally, many amplifiers will have a compression setting that minimizes the differences between loud and soft passages. Make sure that you engage that feature. I recently did these three things in my system, providing a large improvement in intelligibility.



