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Doctor of Audiology

GOING IN THE RIGHT DIRECTION

One of the most helpful features in hearing instruments involves the use of "directional microphones," which effectively improve speech understanding amid background noise. In their simplest sense, these microphones amplify sounds directly in front of the user more than the sounds coming from the back and sides of the user. Hearing instruments with this feature have two or more microphones separated by a specific distance, which enables them to detect the difference in the arrival time of sound to each of these microphones. The instrument then uses this information to respond to the sounds. For instance, the least sensitive portion ("null") of the microphone response will be directed toward the area of the most noise, thereby reducing background sound.

TIP OF THE WEEK

Research has found that two microphones improve speech intelligibility in noisy environments by 33% compared to just using one microphone. If you are considering hearing aids for the first time or are just replacing your older technology, make sure to ask your audiologist about utilizing directional microphones with your hearing devices.

P.S. Hearing instruments with "fully adaptive directional microphones" continuously map the type and location of sound in the user's surrounding environment and direct the microphones "null" accordingly to blunt background noise.

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