

# Zoom and more Zoom

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Up till now two microphones located on each hearing aid did a timing sequence to direct microphone sensitivity to the front. Now wireless technology allows communication amongst all four microphones. The computer chips inside the hearing aids then mathematically direct amplification in new and exciting ways. Now the directional microphone system allows for greater spatial noise separation yielding better Signal to Noise Ratio (SNR) for the microphone system. Phonak has come up with the following Hearing Systems, UltraZoom, StereoZoom, Auto.ZoomControl and DuoPhone which are even more effective in background noise than ever.



**UltraZoom**

**UltraZoom** (green beam) yields better SNR to the direction you are looking. It incorporates a spatial noise cancellation algorithm to distinguish between speech from the front and surrounding noise. With this clear distinction noise cancellation can be more appropriately applied.



**StereoZoom**

**StereoZoom** creates a highly focused beam to the front to focus on a single voice in a crowd. It performs best when the listening goal is to understand a single voice in a noisy crowd. Communication even in very challenging situations is much better.



**AutoZoomControl**

**AutoZoomControl** automatically selects the direction (front, back, left or right) of the dominant speech source. When focusing to one side, the speech signal is picked up and amplified by the aid on that side; simultaneously the entire signal is streamed to the other ear. As a result, the desired signal is heard in both ears.

**ZoomControl** focuses on speech regardless of the direction.



**DuoPhone**

**DuoPhone** streams phone input from the ear where you are holding the phone to both hearing aids. This means that as soon as the phone conversation starts the signal is piped real time to the other ear, so that the caller's voice is heard in both ears. The microphone sensitivity of the receiving ear is also reduced so that background noise is lessened.

**Oticon** is another brand of hearing aids that delivers speech better in noisy environments. It is called Spatial Sound 2, it has both binaural compression and binaural noise management. This enables the user to organize and select sounds in noise. Organization of a sound scene is fundamental for a more natural and comfortable listening experience. This leads to improved understanding of speech in noise.