

CAM2 SOFTWARE FOR HEARING AID FITTING

Professor Brian Moore, Dr Brian Glasberg and Dr Michael Stone at the University of Cambridge have developed a software method, CAM2, for initial fitting of hearing aids. CAM2 enables improved fitting of multi-channel compression hearing aids with an extended high frequency response, resulting in hearing aid fittings that are preferred by hearing-impaired listeners.

Key Benefits:

- Increased audibility at high frequencies
- More accurate predictions of loudness
- Leads to high sound quality for both speech and music

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Technology

The CAM2 software was developed to provide a superior solution for the tailoring of wide-band hearing aid parameters to the individual hearing-impaired listener, using the audiogram alone. An external study showed that CAM2 provided greater audibility over a wide frequency range than other fitting methods⁽¹⁾. In a study conducted at Cambridge University, it was shown that simulated hearing aids fitted using CAM2 were generally preferred over aids fitted using the current leading software for both speech and music signals⁽²⁾. CAM2 is therefore an essential new tool in the audiology field.

Key Benefits

- Suitable for fitting wide-bandwidth multi channel hearing aids
- CAM2 preferred over the current leading software by most hearing impaired listeners
- Provides recommended gain settings for frequencies up to 10 kHz, which leads to improved:
 - Speech perception in complex environments
 - Quality of musical sounds
 - Awareness of environmental sounds
 - Loudness and sound quality in everyday life

Features

- Aid characteristics can be specified:
 - Number of compression channels
 - Edge frequencies & compression threshold of each channel
- Several pre-defined aid settings provided
- Adjustment for previous experience with hearing aids
- Easy to use

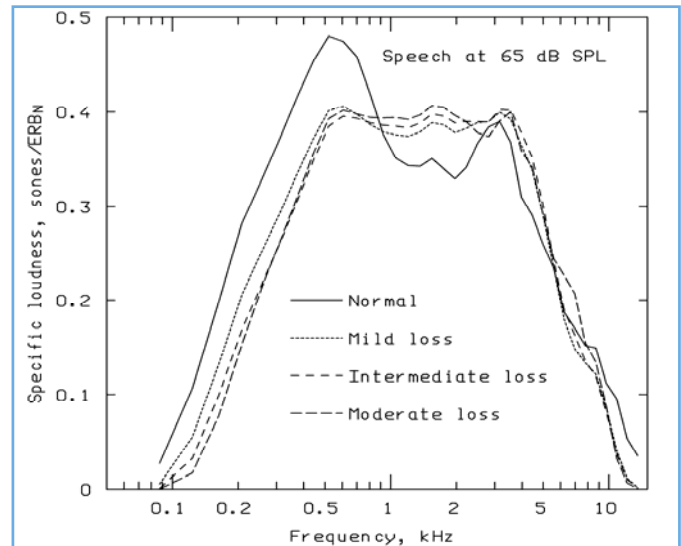


Figure 1: High quality speech perception over a wide range of frequencies using CAM2.

Specific loudness patterns for a sound with a spectrum representative of speech are shown for hypothetical normal ears listening to unamplified speech (solid line) and ears with different degrees of sloping hearing loss, with the sound amplified by the frequency-dependent gains prescribed by CAM2.

Evaluation Licence

- The CAM2 software is available for evaluation and licensing by researchers, professional audiologists and hearing aid manufacturers.
- Versions are available in C for incorporation into fitting software suites or as a standalone version for use in Windows (XP or 7).

Please contact Cambridge Enterprise for further details.

For further information visit: www.http://hearing.psychol.cam.ac.uk/CAM2/CAM2.htm

References

1. Johnson EE and Dillon H, A comparison of gain for adults from generic hearing aid prescriptive methods. *Journal of the American Academy of Audiology* 2011; 22 (7):441-59
2. Moore BCJ and Sek A, Comparison of CAM2 and NAL-NL2 Hearing Aid Fitting Methods. *Ear and Hearing* 2012; Aug 8th, Epub.
3. Moore BCJ, Glasberg BR, Stone MA, Development of a new method for deriving initial fittings for hearing aids with multi-channel compression: CAMEQ2-HF. *International Journal of Audiology* 2010; 49: 216-227