

TRIPLET SPEECH AUDIOMETRY

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The usual type of speech audiometry, presenting to the patient word material at various intensity levels (**quantitative** method) for the determination of a so-called articulation curve and the evaluation of a possible discrimination loss, may be completed with a **qualitative** investigation.

Instead of speech of normal spectral composition in this case filtered speech is offered. For with the aid of electric filters normal speech may be processed to speech of a tonally strongly coloured sound-quality, while yet this distorted speech is still intelligible to the normal ear.

In triplet speech audiometry three of these speech patterns are made use of, viz:

1. **Bass speech** in which all components below 1000 Hz in the normal intensity and frequency relation are still present, whereas the components above 1000 Hz are lacking (zona gravis).
2. **Middle band speech** which comprises all components in the octave 1000-2000 Hz in normal intensity and frequency relation but is deprived of the higher and lower components (zona media).
3. **Descant speech** characterized by the absence of all components below 2000 Hz the higher laid sound pattern being undamaged (zona acuta).

In order to retain intelligibility of the word test material it is necessary by selective phoneme choice to tune in spectrally to each band separately (iso-zonal formant location).

With the aid of this tonally coloured test material, for both ears the spread of discrimination ability along the tone-scale may be traced. The words or sentences are presented each time at a loudness level most comfortable to the ear in question. By means of tallying the number of properly understood words c.q. sentences, the discrimination loss or lack of discrimination (congenital impairments) can be determined in each band.

Experience in this way of testing shows that:

1. Audiograms with according to the threshold curves similar impairments may yield different results for the partial discrimination ability.
2. The main weight of information may have shifted to a lower or higher located part of the tone-scale whether or not in connection with the duration of the hearing handicap and with a possible progression.
3. In general discrimination is retained best in that part of the tone-scale in which the hearing-loss is slightest.

- The results of this investigation may furnish important data, i.a. in:
1. Advising a hearing aid if not only an improvement of the tonal hearing acuity is aimed at but also, in particular, of speech discrimination by selective adjustment of the amplification characteristic of the aid.
 2. The determination of the results of auditory training in school-children with a congenital hearing impairment.

In a clinical and acoupedic respect this testing method may yield very valuable results both prognostically and diagnostically.

L'AUDIOMETRIE VOCALE PAR TRIPLET

L'audiométrie par triplet est une méthode d'audiométrie vocale destinée à mesurer le pouvoir discriminatif partiel de l'oreille dans une bande de fréquences limitée du spectre auditif.

La distribution de la discrimination vocale le long de la gamme des fréquences chez l'oreille anormale est une donnée importante au point de vue de l'appareillage auditif.

Pour ce but trois tests verbaux différents peuvent être utilisés. Ces trois genres d'expressions vocales sont obtenus au moyen de filtres électriques dont les caractéristiques nous fournissent une passe bande tonale différente, c'est à dire: une région des basses, une région des moyennes et celle des aigues.

De cette manière on peut obtenir trois pourcentages de discrimination qui se rapportent à des parties différentes de l'échelle sonore et qui nous fournissent une information particulière sur un décalage de discrimination vers une certaine région de l'échelle sonore.

Au point de vue de la valeur particulière des appareils auditifs dits à large bande les données de ces tests nous fournissent une addition importante en ce qui concerne leur effet utile pour l'utilisateur.

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