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**P21**

**Laser doppler velocimetric data in young normal hearing subjects**

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Introduction: The aim of the study was to evaluate a modified laser Doppler vibrometer (LDV) and to establish a normative curve of the vibrational pattern of the umbo in normal hearing subjects.

Materials and Methods: A LDV (Model OFV-3001 with an OFV- 302 sensor head, Polytec) coupled to an operative microscope (OPMI MDM, ZEISS) was used to evaluate umbo displacement at sound pressure levels of 60, 70 and 80 dB SPL at the umbo of 33 female and 22 male subjects with audiometrically proved normal hearing.

Results: The mean displacement curve can be divided in four regions for the frequency range 200 Hz - 7,1 kHz : a basstone plateau (P1), first resonantpoint (R1) with following roll-off (A1), a turningpoint (W) with following roll-up for female or with following plateau for male (P2), up to a second resonantpoint (R2); followed by a second roll-off (A2).

Conclusion: These references can be used for further measurements in the future for example to compare it with pathological situation of the ear. The small dispersion of the laseraudiometric results argue in favour of a reliable measuring instrument.