

The Effect of Auditory Fatigue on SISI Scores*

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The present study is aimed at determining the effect of auditory fatigue on SISI scores in normal hearing subjects. The present study was carried out to find answers to the following :

- (1) Does the SISI scores change after the ear is fatigued ?
- (2) Is there any frequency effect in the change of SISI score after the ear is fatigued ?
- (3) Does the performance become better or worse after the ear is fatigued ?

Twenty-two students of AIISH, Mysore, with normal hearing in the age range of 17 and 24 years served as subjects in the study. All audiometric measurements were made under standard clinical conditions. The equipment used was Beltone 200 C Clinical Audiometer.

After establishing pure-tone thresholds SISI scores were measured at 40, 50, 60 and 70 dB HL at 500, 1000, 2000 and 4000 Hz for the increments 1 dB or 0.75 dB depending on the test condition. The effect of auditory fatigue on the SISI score was determined. The subjects received either 1 KHz or 2 KHz fatiguing tone (depending on testing condition) at 110 dB HL for 10 minutes and after the termination of the fatiguing tone TTS was measured.

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After determining TTS. SISI score was measured at different presentation level (dB HL) depending on the test condition.

The result shows that the mean percentage scores increased at 1 KHz for 1 dB and 0.75 dB increments after the ear was fatigued and that the mean percentage score decreased at 2 KHz for 1 dB increment after the ear was fatigued .

The result also shows that the percentage of SISI score increases as the intensity is increased. This indicates that the energy reaching the cochlea is an important factor for detecting small changes in intensity.

Recommendations

- (1) The present study showed large individual differences with regard to the SISI scores obtained after the ear was fatigued. Hence, the results are not conclusive. It is recommended that a large number of subjects may be tested on the lines of the present investigation.
- (2) Test-retest reliability of SISI scores, after the ear is fatigued, should also be determined.

Limitation

Since the subjects showed large individual differences (in the results of the present study) a large number of subjects should have been included in the study.