

**FOLLOW UP STUDY
OF THE
HEARING THRESHOLD OF WORKERS
EXPOSED TO
FORGE HAMMERING NOISE**

By
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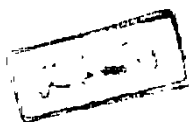
Thesis
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INTRODUCTION

the effect of more 8 years of exposure on their hearing threshold level, and to study the other factors related to hearing, not investigated in the previous study. It is not known that such a follow up study have been carried out in Egypt before.

**AIM OF THE
STUDY**

2- AIM OF THE STUDY

1- To determine the effect of prolonged exposure (more than 8 years) to Forge Hammering noise on the pattern of hearing threshold at different frequencies, with consideration to the age effect (Presbycusis).

2- To confirm the presence of raised hearing threshold level at the low frequency region 0.25, 1KHz, and to determine whether the maximum shift of hearing threshold is still at the frequency 6 KHz.

3- To find out the relation between the Forge Hammering noise induced hearing loss and the concomitant symptoms as difficulty on hearing human voices, tinnitus, and acoustic after image.

REVIEW OF LITERATURE

3- REVIEW OF LITERATURE

3-1- DEFINITIONS :

Noise can be defined in several ways

- SUBJECTIVELY: noise has been described as any unpleasant, unwanted or undesirable sound.

- OBJECTIVELY: noise is a complex sound having little or no periodicity, the waveform not being repeated at any calculably regular interval of time (Hirsh and Ward, 1952). Noise has finite parameters which can be measured and characteristics which can be analysed.

-QUANTITATIVELY: noise is defined in terms of its duration in time, its frequency spectrum in Hertz (Hz) (formerly cycles per second), and its loudness intensity or sound pressure level (SPL) in Decibels (dB).

QUALITATIVELY: noise may be continuous steady-state, intermittent, impulsive or explosive.

Combined characteristics may occur, as with steady-state noise of intense sound. (Chadwick, 1972).

3-2- TYPES OF NOISE :

Noise is classified into many types:

1- Continuous wide band noise: where the energy is spread in a wide range of frequencies with or without the