شبكة المعلومات الجامعية

التوثيق الإلكتروني والميكروفيلم

بسم الله الرحمن الرحيم

HANAA ALY

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جامعة عين شمس

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قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

HANAA ALY

Evaluation of Central Auditory Processing in Individuals with Occupational Noise exposure

Thesis

Submitted for Partial Fulfillment of Master Degree in Audiology

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List of Abbreviations

Abb.	Full term
ABR	*Auditory Brainstem Response*
ANFs	*Auditory Nerve Fibers*
APD	*Auditory Processing Disorder*
ARHL	*Age Related Hearing Loss*
ASHA	*American Speech-Language-Hearing Association*
CAP	*Compound action potential*
CAPD	*Central auditory processing disorders*
CDC	*Centers for Disease Control and Prevention*
DD	*Dichotic digits test*
DPT	*Duration pattern test*
GIN	*Gap in noise test*
HPDs	*Hearing Protective Devices*
IHCs	*Inner Hair cells*
NIDCD	*National Institute of Deafness and Other Communication Disorders*
NIHHL	*Noise Induced Hidden Hearing loss*
NIHL	*Noise induced hearing loss*
NIOSH	*National Institute for Occupational Safety and Health*
NVDT	*Nonverbal dichotic test*
OAE	*Otoacoustic emissions*
OHCs	*Outer hair cells*
ONIHL	*Occupational noise induced hearing loss*
OSHA	*Occupational Safety and Health Adminstration*
PEL	*Permissible Exposure Limit*
PTA	*Pure-tone audiometry*
PTS	*Permenant Threshold Shift*
REL	*Recommended Exposure Limit*

List of Abbreviations Cont...

Abb.	Full term
SGNs	*Spiral Ganglion Neurons*
SNHL	*Sensorineural hearing loss*
SNR	*Signal to noise ratio*
SPIN	*Speech in noise test*
SPL	*Sound pressure level*
SR	*Spontaneous Rate*
TCST	*Time compressed speech test*
TTS	*Transient Threshold Shift*
U.S	*United states.*
WHO	*World Health Organization*

INTRODUCTION AND RATIONALE

Hearing loss due to noise exposure in the workplace is a significant health problem worldwide ***(Nelson et al., 2005; Śliwińska et al., 2017).*** Occupational noise induced hearing loss (ONIHL) is responsible for 16% of cases of disabling hearing loss in adults ***(Neitzel et al., 2017).***

The impacts of occupational noise exposure cause a financial and disease burden on both individual and society. Previous studies have indicated that workers employed in the construction, manufacturing, mining, agriculture, transportation, industries, military personnel, and musicians have the highest risk for ONIHL ***(Basner et al., 2014).***

Accordingly, the Occupational Safety and Health Administration (OSHA) provides workplace guidelines for noise exposure limits whereas the National Institute for Occupational Safety and Health (NIOSH) provides more conservative recommendations on exposure limits ***(OSHA, 1983; NIOSH, 1998).***

Occupational NIHL develops gradually over time and is a function of continuous or intermittent noise exposure. This is in contrast to occupational acoustic trauma which is characterized by a sudden change in hearing as a result of a single exposure to a sudden burst of sound. Exposure that damage hearing isn't necessarily painful or even annoying ***(Mirza et al., 2018).***