

Australian Standard™

**Acoustics—Statistical distribution of
hearing thresholds as a function of age**

This Australian Standard was prepared by Committee AV-003, Acoustics Human Effects. It was approved on behalf of the Council of Standards Australia on 23 May 2003 and published on 4 July 2003.

The following are represented on Committee AV-003:

- Association of Australian Acoustical Consultants
- Association of Consulting Engineers Australia
- Australian Acoustical Society
- Australian Chamber of Commerce and Industry
- Australian Hearing
- Department of Consumer & Employment Protection, WorkSafe Division, W.A.
- Department of Labour, New Zealand
- N.S.W. Rural Fire Service
- New South Wales Nurses Association
- New Zealand Audiological Society
- Royal Institution of Naval Architects
- Safety Institute of Australia (Incorporated)
- Victorian WorkCover Authority
- WorkCover New South Wales

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This Standard was issued in draft form for comment as DR 02545.

STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS ISO 7029—2003

Acoustics—Statistical distribution of hearing thresholds as a function of age

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Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 22 May 2014.

The following are represented on Technical Committee AV-003:

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Australian Acoustical Society
Australian Chamber of Commerce and Industry
Australian Council of Trade Unions
Department of Commerce, Worksafe Division, Western Australia
Department of Defence (Australian Government)
Engineers Australia
National Acoustic Laboratories
New South Wales Nurses' Association
WorkSafe Victoria

NOTES

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First published as AS ISO 7029—2003.

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Published by Standards Australia International Ltd
GPO Box 5420, Sydney, NSW 2001, Australia

ISBN 0 7337 5362 0

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PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee AV-003, Acoustics Human Effects. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian, rather than an Australian/New Zealand Standard.

This Standard is identical with and has been reproduced from ISO 7029:2000, *Acoustics—Statistical distribution of hearing thresholds as a function of age*.

The objective of this Standard is to provide descriptive statistics of the hearing threshold for populations of various ages.

As this Standard is reproduced from an International Standard, the following applies:

- (a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.
- (b) In the source text ‘this International Standard’ should read ‘this Australian Standard’.
- (c) A full point substitutes for a comma when referring to a decimal marker

This Standard provides for the use of the following Australian/New Zealand Standards as equivalents to particular International Standards referenced herein:

<i>Reference to International Standard</i>		<i>Australian/New Zealand Standard</i>	
ISO		AS/NZS	
389	Acoustics—Referenced zero for the calibration of audiometric equipment	1591	Acoustics—Instrumentation for audiometry
389-3	Part 3: Reference equivalent threshold force levels for pure tones and bone vibrators	1591.1	Part 1: Reference zero for the calibration of pure-tone bone conduction audiometers

INTRODUCTION

It is well known that the sensitivity of human hearing usually falls progressively with age and that the impairment of hearing develops more rapidly for sound at high frequencies than at low frequencies. Moreover, the magnitude of this effect varies considerably among individuals.

When testing the hearing of persons markedly over 18 years of age, part of any observed hearing loss will probably be associated with age, and it is important to be aware of this when estimating the amount of hearing loss attributable to other causes under investigation.

It should be noted that a decrease in hearing ability may not necessarily be caused by ageing itself, but by many injurious influences during life time, which are not known in detail.

This International Standard is based on a thorough examination of literature data on the change of hearing with age for populations of otologically normal persons as defined herein. Distinction is made between males and females since the difference is found to be of significance in the case of older age groups. The data have been derived from investigations using pure tones transmitted to the ear from an earphone, but no evidence is known that disqualifies their use for noise band stimuli or for sound transmitted to the ear from an external sound field.