Australian Standard®

Acoustics—Audiometric test methods

Part 3: Speech audiometry

This Australian Standard® was prepared by Committee AV-003, Acoustics Human Effects. It was approved on behalf of the Council of Standards Australia on 2 December 2008.
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The following are represented on Committee AV-003:

- Association of Accredited Certification Bodies
- Association of Australian Acoustical Consultants
- Association of Consulting Engineers Australia
- Audiological Society of Australia
- Australasian Faculty of Occupational & Environmental Medicine
- Australian Acoustical Society
- Australian Chamber of Commerce and Industry
- Australian Council of Trade Unions
- Australian Industry Group
- Australian Society of Otolaryngological Head and Neck Surgery
- Department of Defence, Australia
- Department of Labour, New Zealand
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- Office of the Australian Safety and Compensation Council
- Royal Institute of Naval Architects
- Safety Institute of Australia
- University of Queensland
- Victorian WorkCover Authority
- WorkCover New South Wales
- WorkSafe Division Department of Commerce Government of WA

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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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Acoustics—Audiometric test methods

Part 3: Speech audiometry

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PREFACE

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

This Standard is identical with, and has been reproduced from ISO 8253-3:1996, *Acoustics—Audiometric test methods,* Part 3: *Speech audiometry*.

The objective of this Standard is to specify procedures and requirements for speech audiometry where the recorded test material is presented by air conduction through an earphone, by bone conduction through a bone vibrator, or from a loudspeaker for sound field audiometry.

Committee AV-003 agreed that the following sentences should be added:

(a) Clause 9.1, paragraph 1—Guidance on recent exposure can be obtained from AS/NZS 1269.4.

(b) Clause 17, paragraph 1—It is recommended that for Stages B and C the calibration be recorded and any non-compliance noted.

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

(i) Its number does not appear on each page of text and its identity is shown only on the cover and title page.

(ii) In the source text 'this part of ISO 8253' should read 'this Australian Standard'.

(iii) Substitute a full point for a comma as a decimal marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

Reference to International Standard		*Australian Standard*	
ISO		AS	
266	Acoustics—Preferred frequencies	2533	Acoustics—Preferred frequencies and band centre frequencies
		AS ISO	
8253	Acoustics—Audiometric test methods	8253	Acoustics—Audiometric test methods
8253-1	Part 1: Basic pure tone air and bone conduction threshold audiometry	8253.1	Part 1: Basic pure tone air and bone conduction threshold audiometry
8253-2	Part 2: Sound field audiometry with pure tone and narrow band test signals	8253.2	Part 2: Sound field audiometry with pure tone and narrow-band test signals
IEC		AS IEC	
645	Audiometers	60645	Electroacoustics—Audiological equipment
645-1	Part 1: Pure tone audiometers	60645.1	Part 1: Pure-tone audiometers (IEC 60645-1:2001, MOD)
645-2	Part 2: Equipment for speech audiometry	60645.2	Part 2: Equipment for speech audiometry

Only international references that have been adopted as Australian or Australian/New Zealand Standards have been listed.

CONTENTS

INTRODUCTION

Speech audiometry is used in connection with diagnostic evaluation, audiological rehabilitation and the evaluation of hearing disability. The purpose of a particular test is to assist in the choice of speech test material and mode of presentation.

AUSTRALIAN STANDARD

Acoustics — Audiometric test methods —

Part 3:
Speech audiometry

1 Scope

This part of ISO 8253 specifies procedures and requirements for speech audiometry with the recorded test material being presented by air conduction through an earphone, by bone conduction through a bone vibrator, or from a loudspeaker for sound field audiometry. Methods for using noise either for masking the non-test ear or as a competing sound are described. All test procedures are based on the use of open-set test material.

This part of ISO 8253 also contains requirements on recorded speech material and recommended procedures for the maintenance and calibration of speech audiometric equipment.

Some test subjects, for example children, may require amended test procedures not specified in this part of ISO 8253.

It is recognized that standards for speech audiometry cannot be met using live voice speech tests, however, guidance is given in an informative annex so as to make such tests as reliable as possible.

This part of ISO 8253 does not specify the contents of the speech material because of the variety of languages. The type of test material may significantly influence the result of speech audiometry.

Specialized tests such as those used for evaluating directional hearing and dichotic hearing are not included in this part of ISO 8253.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 8253. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 8253 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 266:—[1], *Acoustics — Preferred frequencies.*

ISO 8253-1:1989, *Acoustics — Audiometric test methods — Part 1: Basic pure tone air and bone conduction threshold audiometry.*

ISO 8253-2:1992, *Acoustics — Audiometric test methods — Part 2: Sound field audiometry with pure tone and narrow band test signals.*

IEC 645-1:1992, *Audiometers — Part 1: Pure-tone audiometers.*

IEC 645-2:1993, *Audiometers — Part 2: Equipment for speech audiometry.*

1) To be published. (Revision of ISO 266:1975)