The International Phonetic Alphabet

The International Phonetic Alphabet (IPA) is a system for representing precise details of pronunciation in written form. It is widely used in linguistics, clinical speech sciences, language teaching, vocal music pedagogy, accent training for actors, pronunciation guides found in many dictionaries and language textbooks, and in any endeavor where it is necessary to capture accurately the nuances of speech. The IPA itself is not a language, and it is not localized to any particular country or language group. It is developed and maintained by the International Phonetic Association, and its goal is to represent unambiguously all of the sounds in the approximately 6,000 languages spoken on earth today, including languages that have no writing system. The IPA consists of nearly 200 unique symbols: consonants, vowels, suprasegmentals, tones and word accents, diacritics, and miscellaneous symbols.

The complete, current, print IPA charts can be downloaded from the International Phonetic Association's web page at http://www.langsci.ucl.ac.uk/ipa/ipachart.html. These charts are freely distributable under a Creative Commons Attribution-Sharealike 3.0 Unported License, Copyright © 2005 International Phonetic Association. Complete IPA charts are also found in most introductory-level phonetics or general linguistics textbooks. The most recent, comprehensive reference work in print is *The Handbook of the International Phonetic Association: A Guide to the Use of the International Phonetic Alphabet*, published in 1999 by Cambridge University Press.

The most recent, up-to-date, braille notation of the IPA (Englebretson 2008) was produced under the auspices of the International Council on English Braille. It has been adopted by the Braille Authority of North America, and has been approved by ICEB for use alongside Unified English Braille for the transcription of phonetic and phonemic materials. It is available online in both PDF and BRF formats from http://www.iceb.org/icebipa.htm. The first braille volume contains a general introduction and overview, all of the IPA charts presented in tabular format, basic rules for the use of IPA Braille, and several sample passages. This volume also contains an index designed for braille transcribers, which lists the print IPA glyphs in pseudo-alphabetical order along with the corresponding braille symbols. The second braille volume consists of swell-paper tactile illustrations of each print IPA symbol along with its braille equivalent.

IPA Braille is summarized in a journal article targeting professional phoneticians and linguists (Englebretson 2009). This article presents a detailed history of other braille notations of the IPA, gives a thorough overview of the steps and rationale which led to the development of the current IPA Braille system, and presents all of the IPA Braille symbols in chart form for the benefit of sighted phoneticians and teachers who wish to learn IPA Braille or who are currently working with braille-reading students.

References

Englebretson, Robert (ed.). 2008. *IPA Braille: An Updated Tactile Representation of the International Phonetic Alphabet*, 2 vols. Toronto: CNIB. http://www.iceb.org/icebipa.htm
Englebretson, Robert. 2009. "An overview of IPA Braille: an updated tactile representation of the International Phonetic Alphabet." *Journal of the International Phonetic Association*, 39: 67-86.

IPA Braille Charts (IPA Revised to 2005)

The following charts originally appeared as the appendix to Englebretson, Robert. 2009. "An overview of IPA Braille: an updated tactile representation of the International Phonetic Alphabet." *Journal of the International Phonetic Association*, 39: 67-86. They are reprinted here by permission of the secretary of the International Phonetic Association.

Consonants (Pulmonic)

	Bilabial	Labiodental	Dental	Alveolar	Postalveolar	Retroflex	Palatal	Velar	Uvular	Pharyngeal	Glottal
Plosive	⠿ ⠿			⠿ ⠿		⠿ ⠿	⠿ ⠿	⠿ ⠿	⠿ ⠿		⠿
Nasal	⠿	⠿		⠿		⠿	⠿	⠿	⠿		
Trill	⠿			⠿					⠿		
Tap or Flap		⠿		⠿		⠿					
Fricative	⠿ ⠿	⠿ ⠿	⠿ ⠿	⠿ ⠿	⠿ ⠿	⠿ ⠿	⠿ ⠿	⠿ ⠿		⠿ ⠿	⠿ ⠿
Lateral fricative				⠿ ⠿							
Approximant		⠿		⠿		⠿	⠿	⠿			
Lateral approximant		⠿		⠿		⠿	⠿	⠿			

Consonants (Non-Pulmonic)

	Clicks		Voiced implosives		Ejectives	
⠿	Bilabial	⠿	Bilabial	⠿	Examples:	
⠿	Dental	⠿	Dental/alveolar	⠿	Bilabial	
⠿	(Post) alveolar	⠿	Palatal	⠿	Dental/alveolar	
⠿	Palatoalveolar	⠿	Velar	⠿	Velar	
⠿	Alveolar lateral	⠿	Uvular	⠿	Alveolar fricative	

Other Symbols

Braille	Description
⠿	Voiceless labial-velar fricative
⠿	Voiced labial-velar approximant
⠿	Voiced labial-palatal approximant
⠿	Voiceless epiglottal fricative
⠿	Voiced epiglottal fricative
⠿	Epiglottal plosive
⠿ ⠿	Alveolo-palatal fricatives
⠿	Voiced alveolar lateral flap
⠿	Simultaneous ʃ and x
⠿⠿ ⠿⠿⠿	Affricates and double articulations can be represented by two symbols joined by a tie bar if necessary.

Vowels

	Front	Central	Back
Close	⠿	⠿	⠿
	⠿		⠿
Close-mid	⠿	⠿	⠿
		⠿	
Open-mid	⠿	⠿	⠿
	⠿	⠿	
Open	⠿		⠿

Diacritics

⠿	Voiceless	⠿	Breathy voiced	⠿	Dental
⠿	Voiced	⠿	Creaky voiced	⠿	Apical
⠿	Aspirated	⠿	Linguolabial	⠿	Laminal
⠿	More rounded	⠿	Labialized	⠿	Nasalized
⠿	Less rounded	⠿	Palatalized	⠿	Nasal release
⠿	Advanced	⠿	Velarized	⠿	Lateral release
⠿	Retracted	⠿	Pharyngealized	⠿	No audible release
⠿	Centralized	⠿	Velarized or pharyngealized		
⠿	Mid-centralized	⠿	Raised (= voiced alveolar fricative)		
⠿	Syllabic	⠿	Lowered (= voiced bilabial approximant)		
⠿	Non-syllabic	⠿	Advanced Tongue Root		
⠿	Rhoticity	⠿	Retracted Tongue Root		

Suprasegmentals

Braille	
⠿	Primary stress
⠿	Secondary stress
⠿	Long
⠿	Half-long
⠿	Extra-short
⠿	Minor (foot) group
⠿	Major (intonation) group
⠿	Syllable break
⠿	Linking (absence of a break)

Tones And Word Accents

	LEVEL			CONTOUR
⠿ or ⠿	Extra high		⠿ or ⠿	Rising
⠿	High		⠿	Falling
⠿	Mid		⠿	High rising
⠿	Low		⠿	Low rising
⠿	Extra low		⠿	Rising-falling
⠿	Downstep		⠿	Global rise
⠿	Upstep		⠿	Global fall

Introduction to Country Listings

Welcome to *World Braille Usage.* This third edition of *World Braille Usage* has been made possible by hundreds of people who use and produce braille throughout the world. As a result, it captures a new perspective on the global use of braille. Unlike previous editions, this one includes links to electronic media, and a digital copy can be found online on the Perkins website: www.perkins.org/worldbraille.

How this book is organized:

- The 142 countries represented in this book are listed in alphabetical order.
- This book includes 133 languages that have been transcribed into 137 different braille alphabet and punctuation codes. [Nepali, Tamil, and Urdu are transcribed in two countries, but each has different braille codes, and there are two codes for Greek]
- In countries where multiple languages have been transcribed into braille, the languages are listed in order of predominance of use.
- The braille alphabet and punctuation codes for languages that are used in a single country appear only once, on the page for that country.
- The braille alphabets for languages that are used in two or more countries are cross-referenced on country pages, e.g. **Spanish Alphabet:** see *Spanish,* page 201. These alphabets and punctuation codes are contained in the section titled, *Braille Alphabets Used in Multiple Countries,* which follows the country pages.
- The braille and alphabet and punctuation code for Esperanto, a language that is not associated with a country can be found in *Braille Alphabets Used in Multiple Countries.*
- The *Index by Language Name* contains the names all of the languages represented in this book.

The majority of the data collected to create the contents of this book came from two primary sources: a questionnaire sent to representatives of braille-related organizations in 197 countries between April 2012 and April 2013; and the 1990 edition of *World Braille Usage.* Additionally, some of the data for this book was sourced with the support provided by Duxbury Systems.

Data sourced from the questionnaire: The information provided by the various participating countries may vary. Although every effort was made to ensure that the information presented in this book was verified as correct, the content of this book is based upon the information provided by the returned questionnaires and follow-up communications prior to publication. Not all countries were able to verify their respective information prior to publication.

Data sourced from *World Braille Usage,* 1990: A number of countries that appeared in the 1990 edition did not respond to the questionnaire during the information data gathering phase. The source of information given for these countries, and the languages they use, is cited as: *World Braille Usage*, 1990. A number of countries that didn't respond were formally part of the Soviet Union or Yugoslavia, or changed names, and this information is also indicated by sourcing *World Braille Usage,* 1990.