



# THE INTERNATIONAL PHONETIC ALPHABET (2005)

## CONSONANTS (PULMONIC)

	Bilabial	Labio-dental	Dental	Alveolar	Post-alveolar	Retroflex	Palatal	Velar	Uvular	Pharyngeal	Epi-glottal	Glottal
Nasal	m	ɱ	n			ɳ	ɲ	ŋ	ɴ			
Plosive	p b	ɸ β	t d			ʈ ɖ	c ɟ	k ɡ	q ɢ			
Fricative	ɸ β	f v	θ ð	s z	ʃ ʒ	ʂ ʐ	ç ʝ	x ɣ	χ ʁ	ħ ʕ	ħ ʕ	h ɦ
Approximant		ʋ	ɹ			ɻ	j	ɰ				
Trill	ʙ		r						ʀ		ʀ	
Tap, Flap		ⱱ	ɾ			ɽ						
Lateral fricative			ɬ ɮ			ɮ̥	ɮ̥	ɮ̥				
Lateral approximant			l			ɭ	ʎ	ʎ				
Lateral flap			ɺ			ɻ						

Where symbols appear in pairs, the one to the right represents a modally voiced consonant, except for murmured *ɦ*. Shaded areas denote articulations judged to be impossible. Light grey letters are unofficial extensions of the IPA.

## CONSONANTS (NON-PULMONIC)

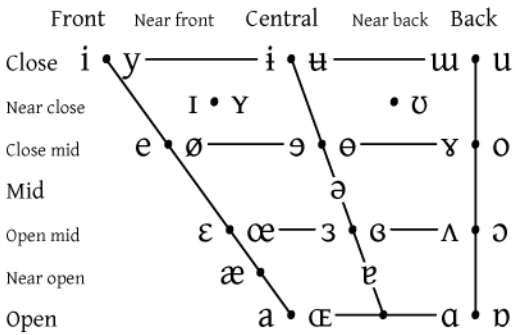
Anterior click releases (require posterior stops)	Voiced implosives	Ejectives
⊙ Bilabial fricated	ɓ Bilabial	ʼ <i>Examples:</i>
Laminal alveolar fricated ("dental")	ɗ Dental or alveolar	pʼ Bilabial
! Apical (post)alveolar abrupt ("retroflex")	ɟ Palatal	tʼ Dental or alveolar
† Laminal postalveolar abrupt ("palatal")	ɠ Velar	kʼ Velar
Lateral alveolar fricated ("lateral")	ɣ Uvular	sʼ Alveolar fricative

## CONSONANTS (CO-ARTICULATED)

- ɱ Voiceless labialized velar approximant
- ɰ Voiced labialized velar approximant
- ɥ Voiced labialized palatal approximant
- ɕ Voiceless palatalized postalveolar (alveolo-palatal) fricative
- ʑ Voiced palatalized postalveolar (alveolo-palatal) fricative
- ɧ Simultaneous x and ʃ (disputed)

kp̚ ts Affricates and double articulations may be joined by a tie bar

## VOWELS



Vowels at right & left of bullets are rounded & unrounded.

## SUPRASEGMENTALS

- |                                  |                      |                  |                          |
|----------------------------------|----------------------|------------------|--------------------------|
| ˈ Primary stress                 | ˈˈ Extra stress      | ˉ Level tones    | ˆ Contour-tone examples: |
| ˌ Secondary stress [ˌfoʊnəˈtʃən] | eː Long              | é ˈ Top          | ě ˈ Rising               |
| e Short                          | ě Extra-short        | é ˈ High         | ê ˈ Falling              |
| · Syllable break                 | ˘ Linking (no break) | ē ˈ Mid          | ě ˈ High rising          |
| INTONATION                       |                      | è ˈ Low          | ě ˈ Low rising           |
| Minor (foot) break               |                      | è ˈ Bottom       | ē ˈ High falling         |
| Major (intonation) break         |                      | ˉ Tone terracing | ē ˈ Low falling          |
| ↗ Global rise                    | ↘ Global fall        | ˆ Upstep         | ě ˈ Peaking              |
|                                  |                      | ˆ Downstep       | ě ˈ Dipping              |

DIACRITICS Diacritics may be placed above a symbol with a descender, as ɲ̥. Other IPA symbols may appear as diacritics to represent phonetic detail: <sup>h</sup> (fricative release), <sup>h</sup> (breathy voice), <sup>ʔ</sup> (glottal onset), <sup>ə</sup> (epenthetic schwa), <sup>o</sup> (diphthongization).

SYLLABICITY & RELEASES		PHONATION		PRIMARY ARTICULATION		SECONDARY ARTICULATION			
ɲ̥ ɲ̥	Syllabic	ɲ̥ ɲ̥	Voiceless or Slack voice	ɲ̥ ɲ̥	Dental	tʷ dʷ	Labialized	ɔ̞ ɔ̞	More rounded
e̞ ʊ̞	Non-syllabic	ɣ̞ ɣ̞	Modal voice or Stiff voice	ɲ̥ ɲ̥	Apical	tʲ dʲ	Palatalized	ɔ̞ ɔ̞ <sup>w</sup>	Less rounded
tʰ h̥t	(Pre)aspirated	ɲ̥̚ ɲ̥̚	Breathy voice	ɲ̥̚ ɲ̥̚	Laminal	tʰ dʰ	Velarized	ẽ ẽ	Nasalized
d <sup>n</sup>	Nasal release	ɲ̥̚ ɲ̥̚	Creaky voice	ɲ̥̚ ɲ̥̚	Advanced	tʰ dʰ	Pharyngealized	ɶ ɶ	Rhoticity
d <sup>l</sup>	Lateral release	ɲ̥̚ ɲ̥̚	Strident	ɲ̥̚ ɲ̥̚	Retracted	t̠ z̠	Velarized or pharyngealized	ɶ ɶ	Advanced tongue root
t̠	No audible release	ɲ̥̚ ɲ̥̚	Linguolabial	ä̞ j̞	Centralized	ũ̞	Mid-centralized	ɶ ɶ	Retracted tongue root
e̞ β̞	Lowered (β̞ is a bilabial approximant)			e̞ ɹ̞	Raised (ɹ̞ is a voiced alveolar non-sibilant fricative)				