

## THE INTERNATIONAL PHONETIC ALPHABET (2005)

### CONSONANTS (PULMONIC)

	LABIAL		CORONAL				DORSAL			RADICAL		LARYNGEAL
	Bilabial	Labio-dental	Dental	Alveolar	Palato-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	ʔ	ʕ
Fricative	ɸ β	f v	θ ð	s z	ʃ ʒ	ʂ ʐ	ç ʝ	x ɣ	χ ʁ	ħ ʕ	ʜ ʕ̥	h ɦ
Approximant		ʋ	ɹ				ɻ	j	ɰ			
Trill	ʙ		r									ʀ
Tap, Flap		ⱱ	ɾ				ɽ					
Lateral fricative			ɬ ɮ				ɮ̥	ɬ̥	ɬ̥			
Lateral approximant			l				ɭ	ʎ	ʟ			
Lateral flap			ɺ				ɺ̥					

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

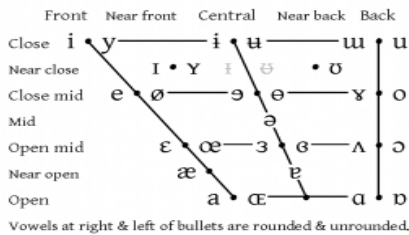
### CONSONANTS (NON-PULMONIC)

Anterior click releases (require posterior stops)	Voiced implosives	Ejectives
ʘ Bilabial fricated	ɓ Bilabial	ʼ <i>Examples:</i>
ɰ Laminal alveolar fricated ("dental")	ɗ Dental or alveolar	ɸ' Bilabial
ɰ' Apical (post)alveolar abrupt ("retroflex")	ɟ Palatal	t' Dental or alveolar
ɰ' Laminar postalveolar abrupt ("palatal")	ɠ Velar	k' Velar
ɰ' Lateral alveolar fricated ("lateral")	ɠ Uvular	s' Alveolar fricative

### CONSONANTS (CO-ARTICULATED)

- ʍ Voiceless labialized velar approximant
- ʋ 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 f (disputed)
- kp ts Affricates and double articulations may be joined by a tie bar

### VOWELS



### SUPRASEGMENTALS

- ' Primary stress    " Extra stress
  - ˌ Secondary stress [*ˌfoʊnəˈtɪʃən*]
  - eː Long    e˞ Half-long
  - e Short    ẽ Extra-short
  - ˙ Syllable break    ˘ Linking (no break)
- INTONATION
- | Minor (foot) break
  - || Major (intonation) break
  - ↗ Global rise    ↘ Global fall
- TONE
- Level tones    Contour-tone examples:
  - é ˩ Top    ẽ ˩ Rising
  - é ˩ High    ê ˩ Falling
  - ẽ ˩ Mid    ẽ ˩ High rising
  - ẽ ˩ Low    ẽ ˩ Low rising
  - ẽ ˩ Bottom    ẽ ˩ High falling
  - Tone terracing
  - ↑ Upstep    ẽ ˩ Low falling
  - ↓ Downstep    ẽ ˩ Peaking
  - Dipping

**DIACRITICS** Diacritics may be placed above a symbol with a descender, as ɣ̥. Other IPA symbols may appear as diacritics to represent phonetic detail: tʰ (fricative release), bʰ (breathy voice), ʔa (glottal onset), ʔ (epenthetic schwa), oʷ (diphthongization).

SYLLABICITY & RELEASES	PHONATION	PRIMARY ARTICULATION	SECONDARY ARTICULATION				
ɳ̥ ɳ̥	Syllabic	ɳ̥ ɳ̥	Voiceless or Slack voice	t̥ b̥ Dental	tʷ dʷ Labialized	ɔ̠ ɕ̠ More rounded	
ɳ̥ ɳ̥	Non-syllabic	ɳ̥ ɳ̥	Modal voice or Stiff voice	t̥ ɖ̥ Apical	tʲ dʲ Palatalized	ɔ̠ ɕ̠ʷ Less rounded	
tʰ h̥t̥	(Pre)aspirated	ɳ̥ ɳ̥	Breathy voice	t̥ ɖ̥	tʲ dʲ	Velarized	ẽ ʒ̠ Nasalized
d̥	Nasal release	u̥ t̥	Creaky voice	u̥ t̥	t̥̚ d̥̚	Pharyngealized	ɶ ɶ̠ Rhoticity
d̥	Lateral release	ɰ̥ t̥	Strident	ɰ̥ t̥	ɰ̥ ʒ̥	Velarized or pharyngealized	ɛ̠ ɔ̠ Advanced tongue root
t̥	No audible release	ɰ̥ ɰ̥	Linguolabial	ɰ̥ ɰ̥	ũ̠	Mid-centralized	ɛ̠ ɔ̠ Retracted tongue root
ɛ̠ β̠	Lowered (β̠ is a bilabial approximant)	ɛ̠ ɰ̥		ɛ̠ ɰ̥			Raised (ɰ̥ is a voiced alveolar non-sibilant fricative, ɰ̥ a fricative trill)