

Phonetic symbols for Portuguese phonetic transcription

(Updated October 2012)

Vowels (monophthongs *monotongos* and diphthongs *ditongos*)

Oral monophthongs	Nasal monophthongs	Oral Diphthongs	Nasal Diphthongs
i ɨ u	ĩ ã	ui iu	ũĩ
e	ẽ õ	ɐi ei oi eu	ẽĩ õĩ
ɛ ɐ ɔ	ẽ	ɛi ɔi ɛu	ẽĩ
a		ai au	õũ

Monophthongs

Symbol	Description of basic value	Examples	
		stressed syllables	(unstressed syllables)
i	high front unrounded	vi, pipa	viver, rápido (EP/BP); ave, amores (BP)
e	high-mid front unrounded	vê, medo, meto, ele	geral, meter (BP) Some BP dialects have open [ɛ]
ɛ	low-mid front unrounded	até, cego, mete, ela	secção (EP), delgado (EP)
a	low central unrounded	está, carro	à, caveira, ação, faltar
ɐ	(i)low-mid front-central unrounded (ii)mid central unrounded (iii)high-mid, central unrounded (more precisely, [ə])	cama, rebanho (EP) telha, lenha (Lisbon EP)	viva (EP/BP); a, amor, passarinho (EP)
ɨ	high central unrounded (older sources use [ɐ] or [ɯ] for this vowel)		cevada, ave, amores (EP)
u	high back rounded	pura, peru	pelo, pulir; polir (EP)
o	high-mid back rounded	loura, ovo, doce, avô	louvar, soltar, polir (BP)
ɔ	low-mid back rounded	hora, ovos, dose, avó	opção, corado, sozinho
ĩ	high front unrounded nasalised	fim, cinco, sintaxe	findar
ẽ	high-mid front unrounded nasalised	cento, sempre	centena (EP 1st vowel only, BP both vowels)
ẽ	low-mid front-central unrounded nasalised (EP) high-mid back unrounded nasalised (BP)	irmã, campo, ânfora	manter, sambista
ũ	high back rounded nasalised	um, fundo	fundir
õ	high-mid back rounded nasalised		bom, monte, côncavo

Diphthongs

	Stressed syllables	Unstressed syllables	Notes
ei (ɐi)	cheira, falei, rei (conservative EP)	peixinho	Standard (Lisbon) Portuguese has [ɐi]; conservative varieties, including Coimbra, have [ei]. Many BP varieties have a monophthong [e] in these words.
ɛi (ɐi)	hotéis, réis (conservative EP)		Lisbon Portuguese has [ɐi]
ai	pai, vai	pairar	
ɐi	cheira, falei, rei hotéis, réis (Lisbon EP)	vaidade	The atonic diphthong results from the fusion of atonic [ɐ] and [i] Many accents do not distinguish it from atonic [ai]
ui	Rui, fui, azuis	ajuizar	
oi	boi, foi, pois	boiar	
ɔi	dói, caracóis		There is no contrast between /ɔi/ and /oi/ in unstressed syllables
iu	viu, riu (also mil, vil BP)	(silvar BP)	
eu	meu, Deus, comeu	europa	Also found in [treuzi] <i>treze</i> in many Lisbon speakers
ɛu	céu (mel BP)		There is no contrast between /ɛu/ and /eu/ in unstressed syllables
ou	louça, souto	louvar	
au	bacalhau, mau (mal BP)	causar, ao	
ɐu		saudade	This diphthong results from the fusion of unstressed [ɐ] and [u] Many accents do not distinguish it from unstressed [au]
ẽĩ ĩĩ	tem, bens, mãe, cães		Standard EP has only one vowel (/ẽĩ/ in Coimbra, and /ĩĩ/ in Lisbon). Accents which contrast /ẽĩ/ and /ĩĩ/ have /ẽĩ/ in <u>tem</u> , <u>bem</u> and /ĩĩ/ in <u>mãe</u> , <u>cães</u>
ũĩ	muito (sole example)	(muitíssimo)	
õĩ	põe, melões	(melõezinhos)	
ũũ	cão, vão	falaram, órfão	Unstressed final ỹũ is often reduced to ỹ in BP.

NB:

- ◆ For greater clarity, the second element of a falling diphthong may be explicitly marked as non-syllabic to distinguish it from a (bisyllabic) sequence of vowels e.g. [aɥ] (*pau*) vs [au] (*dá-o*)
- ◆ The end point of most diphthongs is a centralised [ɪ] or [ʊ]
- ◆ in many Brazilian accents, the vocalization of /l/ results in a new set of diphthongs in -/u/:
[au] *mal* [ɛu] *mel* etc.
- ◆ in some Brazilian accents, the diphthongization of vowels before /s/ creates additional cases of diphthongs in -/u/:
[ei] *três* [ui] *luz*

Consonants

p	voiceless bilabial plosive	pipa, poupo
b	voiced bilabial plosive	bebo
t	voiceless dental plosive	terra
d	voiced dental plosive	dura
ð	voiced dental fricative	tudo
k	voiceless velar plosive	capa, quinze
g	voiced velar plosive	grande, guisado
tʃ	voiceless post-alveolar affricate	tio, dente, erótico BP
dʒ	voiced post-alveolar affricate	dia, onde, estádio BP
f	voiceless labio-dental fricative	fula, foca
v	voiced labio-dental fricative	viva
s	voiceless dental fricative	sinto, cinta, associação, trouxe (EP/BP); voz, atrás, máscara (BP)
z	voiced dental fricative	zero, dose, vozes, êxito
ʂ	voiceless retroflex (apicodental) fricative (s beirão)	passo
ʐ	voiced retroflex (apicodental) fricative (s beirão)	casa
ʃ	voiceless post-alveolar fricative	chama, xícara (EP/BP); voz, atrás, máscara (EP, Rio BP)
ʒ	voiced post-alveolar fricative	gente, juro, Lisboa
j	voiced palatal approximant	yate, Iara
w	voiced labial-velar approximant	quando, linguística
l	voiced alveolar lateral	lula, casal
ʎ	voiced palatal lateral	filha, talhar
m	voiced bilabial nasal	mimar, submeter
n	voiced alveolar nasal	menino, carne
ɲ	voiced palatal nasal	vinho, galinha (often pronounced [j])
ŋ	voiced velar nasal	cinco, manga
ɾ	voiced alveolar tap	cara, amor, carne, cabra
r	voiced alveolar trill	carro, rio, melro E other EP accents have the uvular trill [ʀ])
ʀ	voiced uvular trill	carro, rio, melro E other EP accents have an alveolar trill [r])
χ	voiceless uvular fricative	carro, rio, melro BP: other BP accents have voiced ʁ or other voiceless fricatives including [x] and [h]

Additional phonetic symbols for narrow transcription of Portuguese and discussion of historical processes

1. Vowels:

The following **diacritics** may be used to modify any vowel symbol:

lengthened vowels	iː i:
nasalised vowels	ĩ
raised	ɛ̃
lowered	ɛ̄
retracted	ɛ̠
advanced	ɔ̟
centralised	ë ö

Unstressed vowels may be:

devoiced	ᶥ ᶦ ᶤ (postal [puᶥʃˈtɑᶥ])
laxed (lowered and centralised)	ɪ ʊ cp. normal/tense i u
reduced to secondary articulation of consonants	t ^w (<i>quanto</i> = [kwɐ̃t ^w])

The vowel /a/ is usually realised as a back low unrounded [ɑ] when followed by /l/ ([ɫ]) in the same syllable.

Semivowels [j w] often appear as transitions between sequences of vowels:

é é	= [e ^j e]
a água	= [ɐ ^j agwɐ] (in dialects)
saia	= [sai ^j ɐ]

2. Consonants

The following additional symbols may be useful:

nasal consonants:	velar nasal	ŋ
	labiodental nasal	ɱ

fricatives

voiced bilabial	β
voiced velar	ɣ
voiceless retroflex	ʂ
voiced retroflex	ʐ
voiceless palatal	ç

affricates:

voiceless alveolar/dental	ts
voiced alveolar/dental	dz

fricative variants of /R/ (Brazilian)	χ	(voiceless uvular fricative)
	ʁ	(voiced uvular fricative)
	h	(voiceless glottal fricative)
	x	(voiceless velar fricative)

The following diacritics may be used to modify consonants

labialized	t ^w t _w
palatalized	tʲ
velarized	t̠ t̡

dental	t̪ t̪s̪
apical	t̟ s̟

devoiced	t̚
voiced	t̰̚
reduced	n̥ ŋ̥ m̥

3. General symbols for use in transcribing connected speech

The ligature $_$ or $\widehat{_}$ may be used to show that two sounds in separate words form a single syllable.

The syllabicity mark [] indicates that a consonant is the centre of a syllable, where no vowel is left to fulfil that function (*perfeito* = [pr̩^hfeit̩])

Primary stress on a given syllable is indicated by a raised stress mark [ˈ] placed before the first sound of the syllable.

Secondary stress on a given syllable (only applicable in compounds formed with *-mente*, *-zinho*, *-zito*) is indicated by a lowered stress mark [ˌ] before the first sound of the syllable:
possivelmente = [p̩_ˌsivɛlˈmẽt̩j̩].

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