

# Vowel

**Vowel**, in human [speech](#), [sound](#) in which the flow of air from the lungs passes through the mouth, which functions as a [resonance](#) chamber, with minimal obstruction and without audible friction; *e.g.*, the *i* in “fit,” and the *a* in “pack.” Although usually produced with vibrating vocal cords, vowels may be pronounced without such vibration, resulting in a voiceless, or whispered, sound. From the viewpoint of articulatory [phonetics](#), vowels are classified according to the position of the [tongue](#) and [lips](#) and, sometimes, according to whether or not the air is released through the nose.

A [high vowel](#) (such as *i* in “machine” and *u* in “rule”) is pronounced with the tongue arched toward the roof of the mouth. A [low vowel](#) (such as *a* in “father” or “had”) is produced with the tongue relatively flat and low in the mouth and with the mouth open a little wider than for high vowels. Midvowels (such as *e* in “bed” and *o* in “pole”) have a tongue position between the extremes of high and low.

High, middle, and low vowels are also classified according to a front-to-back dimension. A front vowel is pronounced with the highest part of the tongue pushed forward in the mouth and somewhat arched. The *a* in “had,” the *e* in “bed,” and the *i* in “fit” are front vowels. A back vowel—*e.g.*, the *u* in “rule” and the *o* in “pole”—is produced with the back part of the tongue raised toward the soft palate (velum).

The shape and position of the lips yields a third articulatory dimension by which vowels are classified. The lips may be rounded or spread, in what is called [labialization](#).

Additional articulatory features describing vowel [articulation](#) are “wide” and “narrow,” “tense” (*fortis*) and “lax” (*lenis*). Wide and narrow refer to the tongue-root position. To form a narrow vowel, the tongue root is retracted toward the pharyngeal wall, and the pharynx is narrowed. To form a wide vowel, the tongue root is advanced so that the pharynx is expanded. Tense and lax are less clearly defined terms. [Tense vowels](#) are [articulated](#) with greater muscular effort, slightly higher tongue positions, and longer durations than lax vowels.

All vowels can be divided into two main categories: diphthongs and monophthongs. Diphthongs are gliding vowels in the articulation of which there is a continuous transition from one position to another. Diphthongs are to be contrasted in this respect with so-called pure vowels, or monophthongs—*i.e.*, unchanging, or steady-state, vowels. Though they are single speech sounds, diphthongs are usually represented, in a phonetic transcription of speech, by means of a pair of characters indicating the initial and final configurations of the vocal tract. Many of the vowel sounds in most dialects of English are diphthongs—*e.g.*, the vowels of “out” and “ice,” respectively.

Semivowels are sounds produced in the same manner as vowels but are used and perceived as consonants. Examples include the *y* in “yawn” and the *w* in “walk.”

Vowels • Vowels are classified by how high or low the tongue is, if the tongue is in the front or back of the mouth, and whether or not the lips are rounded

- High vowels: [i] [ɪ] [u] [ʊ]
- Mid vowels: [e] [ɛ] [o] [ə] [ʌ] [ɔ]
- Low vowels: [æ] [a]
- Front vowels: [i] [ɪ] [e] [ɛ] [æ]
- Central vowels: [ə] [ʌ]
- Back vowels: [u] [ʊ] [o] [ɔ] [æ] [a]

Vowels • Round vowels: [u] [ʊ] [o] [ɔ] –Produced by rounding the lips –English has only back round vowels, but other languages such as French and Swedish have front round vowels

• Diphthongs: [aɪ] [aʊ] [ɔɪ] –A sequence of two vowel sounds (as opposed to the monophthongs we have looked at so far)

• Nasalization: –Vowels can also be pronounced with a lowered velum, allowing air to pass through the nose –In English, speakers nasalize vowels before a nasal sound, such as in the words beam, bean, and bingo –The nasalization is represented by a diacritic, an extra mark placed with the symbol:

Vowels • Tense vowels: –Are produced with greater tension in the tongue –May occur at the end of words

• Lax vowels: –Are produced with less tongue tension –May not occur at the end of words

<https://scholar.harvard.edu/files/adam/files/phonetics.ppt.pdf>

<https://www.britannica.com/topic/vowel>