

Manners of Articulation of Consonants in English:

1. Plosives (Stops)

- **Description:** Complete closure of the vocal tract, followed by a sudden release of air.
 - **Examples:** /p/, /b/, /t/, /d/, /k/, /g/
 - **Key feature:** Air pressure builds up behind the closure and then is released.
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2. Nasals

- **Description:** Air flows through the nose while the oral cavity is closed.
 - **Examples:** /m/, /n/, /ŋ/
 - **Key feature:** Voiced sounds; the velum is lowered to allow airflow through the nasal cavity.
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3. Fricatives

- **Description:** Narrow constriction in the vocal tract causes turbulent airflow.
 - **Examples:** /f/, /v/, /θ/, /ð/, /s/, /z/, /ʃ/, /ʒ/, /h/
 - **Key feature:** Can be voiced or voiceless; continuous airflow.
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4. Affricates

- **Description:** Combination of a plosive followed immediately by a fricative at the same or nearby place of articulation.

- **Examples:** /tʃ/ (ch), /dʒ/ (j)
 - **Key feature:** Stop + fricative sequence; single consonantal sound.
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5. Approximants

- **Description:** Articulators come close but do not create turbulent airflow.
 - **Examples:** /r/, /l/
 - **Key feature:** Air passes smoothly; can function like a consonant but is similar to a vowel in quality.
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6. Lateral Approximants

- **Description:** Air flows along the sides of the tongue.
 - **Example:** /l/
 - **Key feature:** The tongue blocks the center of the mouth but allows airflow at the sides.
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7. Semivowels / Glides

- **Description:** Consonant-like sounds that are very similar to vowels; rapid movement of articulators.
 - **Examples:** /j/ (y as in “yes”), /w/ (w as in “wet”)
 - **Key feature:** Always voiced; act as consonants but have vowel-like qualities.
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8. Trills, Taps, and Flaps (less common in English)

- **Description:** Rapid, brief contact or vibration of articulators.
- **Example in English:** /r/ (flap as in American “butter”)
- **Key feature:** Usually very short and quick; used in some dialects.

Place of Articulation

Definition: The place of articulation refers to **where in the vocal tract the airflow is constricted or stopped** to produce a consonant sound.

Place of Articulation	How It's Produced	Example Sounds	Example Words
Bilabial	Both lips come together	/p/, /b/, /m/	pat, bat, mat
Labiodental	Lower lip touches upper teeth	/f/, /v/	fan, van
Dental (Interdental)	Tongue between the teeth	/θ/, /ð/	think, this
Alveolar	Tongue touches alveolar ridge (behind upper front teeth)	/t/, /d/, /s/, /z/, /n/, /l/, /r/	top, dog, sit, zip, net, lap, red
Post-alveolar / Palato-alveolar	Tongue just behind alveolar ridge	/ʃ/, /ʒ/, /tʃ/, /dʒ/	ship, measure, chat, judge
Palatal	Tongue raised towards hard palate	/j/	yes
Velar	Back of tongue touches soft palate (velum)	/k/, /g/, /ŋ/	cat, go, sing

Labio-velar	Tongue back and lips rounded	/w/	wet
Glottal	Using the glottis (space between vocal cords)	/h/	hat

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- **Bilabial, labiodental, dental** → front of the mouth.
 - **Alveolar, post-alveolar, palatal** → middle of the mouth.
 - **Velar, labio-velar** → back of the mouth.
 - **Glottal** → throat.

Consonant	Place of Articulation	Manner of Articulation	Voicing
t			
/p/	Bilabial	Plosive	Voiceless
/b/	Bilabial	Plosive	Voiced
/m/	Bilabial	Nasal	Voiced
/f/	Labiodental	Fricative	Voiceless
/v/	Labiodental	Fricative	Voiced
/θ/	Dental (Interdental)	Fricative	Voiceless
/ð/	Dental (Interdental)	Fricative	Voiced
/t/	Alveolar	Plosive	Voiceless
/d/	Alveolar	Plosive	Voiced

/s/	Alveolar	Fricative	Voiceless
/z/	Alveolar	Fricative	Voiced
/n/	Alveolar	Nasal	Voiced
/l/	Alveolar	Lateral/Approximant	Voiced
/r/	Alveolar	Approximant	Voiced
/ʃ/	Post-alveolar	Fricative	Voiceless
/ʒ/	Post-alveolar	Fricative	Voiced
/tʃ/	Post-alveolar	Affricate	Voiceless
/dʒ/	Post-alveolar	Affricate	Voiced
/j/	Palatal	Semivowel/Approximant	Voiced
/k/	Velar	Plosive	Voiceless
/g/	Velar	Plosive	Voiced
/ŋ/	Velar	Nasal	Voiced
/w/	Labio-velar	Semivowel/Approximant	Voiced
/h/	Glottal	Fricative	Voiceless

1. What are Consonant Clusters?

- **Definition:** A consonant cluster is a group of **two or more consonant sounds occurring together** in a word without any vowels in between.
 - **Example:** /str/ in *street*, /pl/ in *play*, /nd/ in *stand*.
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2. Types of Consonant Clusters

A. Initial Clusters (at the beginning of words)

- Usually 2–3 consonants.
 - **Examples (2 consonants):**
 - /pl/ → *play*
 - /tr/ → *tree*
 - /bl/ → *black*
 - **Examples (3 consonants):**
 - /str/ → *street*
 - /spl/ → *splash*
 - /skr/ → *scream*
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B. Medial Clusters (in the middle of words)

- Occur between vowels in compound or complex words.
 - **Examples:**
 - /nd/ → *window*
 - /rk/ → *parked*
 - /lm/ → *calmly*
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C. Final Clusters (at the end of words)

- Usually 2–4 consonants.

- **Examples (2 consonants):**

- /st/ → *fast*
- /nd/ → *hand*

- **Examples (3 consonants):**

- /lpt/ → *helped*
- /mpt/ → *tempt*

- **Examples (4 consonants):**

- /sts/ → *texts*

3. Rules and Patterns

1. **Most English words allow up to 3 consonants at the beginning** and up to 4 at the end.
2. Clusters often combine **plosives, fricatives, and liquids/semivowels**.
 - Example: /spl/ = /s/ (fricative) + /p/ (plosive) + /l/ (liquid)
3. Some clusters are harder for non-native speakers because certain combinations do not exist in other languages.

4. Common Consonant Clusters

Position	2-Consonant Clusters	3-Consonant Clusters	4-Consonant Clusters
Initial	/pl/, /bl/, /tr/, /dr/	/str/, /spl/, /spr/	—
Medial	/nd/, /rk/, /lt/	/mpl/, /nkl/	—
Final	/st/, /nd/, /lk/	/lpt/, /mpt/	/sts/, /mpts/

