CONSONANT AGE OF ACQUISITION

Table 2. Average age of acquisition of consonants across 15 studies of children within the United States (n = 18,907).

Consonant	50% Criterion[a]				75% Criterion[a]				90% Criterion[a]			
	M (months)	*SD* (months)	Range (months)	No. of studies[b]	*M* (months)	*SD* (months)	Range (months)	No. of studies[b]	*M* (months)	*SD* (months)	Range (months)	No. of studies[b]
Plosives												
p	30.60	7.18	18–36	10	32.73	5.61	24–36	11	33.25	6.94	24–48	12
b	30.60	7.18	18–36	10	32.73	5.61	24–36	11	31.38	7.81	24–48	13
t	31.20	6.20	24–36	10	33.82	7.24	24–48	11	38.54	9.19	24–60	13
d	30.60	7.18	18–36	10	33.09	5.09	24–36	11	35.69	6.68	24–48	13
k	31.20	6.20	24–36	10	33.82	4.85	24–36	11	37.69	7.30	24–48	13
g	31.20	6.20	24–36	10	33.82	4.85	24–36	11	36.77	6.61	24–48	13
Nasals												
m	30.60	7.18	18–36	10	32.73	5.61	24–36	11	33.23	6.66	24–48	13
n	30.60	7.18	18–36	10	32.73	5.61	24–36	11	33.08	7.42	24–48	13
ŋ	30.00	6.41	24–36	8	36.67	12.17	24–66	9	40.30	10.75	24–55	10
Fricatives												
f	31.20	6.20	24–36	10	33.82	4.85	24–36	11	38.31	6.26	24–48	13
v	32.80	5.27	24–36	10	42.73	11.64	30–72	11	50.83	10.77	36–66	12
θ	46.00	7.66	36–60	10	64.20	4.94	60–72	10	77.00	7.44	72–96	10
ð	41.80	4.94	36–48	10	56.73	7.28	48–72	11	69.00	11.33	54–96	12
s	32.40	5.80	24–36	10	38.55	10.00	24–60	11	51.33	16.32	24–84	12
z	33.40	5.97	24–42	10	44.40	17.02	24–84	10	56.82	14.28	30–84	11
ʃ	32.40	5.80	24–36	10	41.27	10.21	24–60	11	55.00	10.50	36–72	12
ʒ	37.00	8.25	28–48	4	54.00	16.54	36–84	6	70.67	12.22	60–84	3
ʍ	32.00	5.66	28–36	2	48.00	16.97	36–60	2	—	—	—	0
h	30.60	7.18	18–36	10	32.73	5.61	24–36	11	35.00	6.95	24–48	13
Approximants, laterals												
ɹ	35.40	7.18	24–48	10	47.64	13.02	24–66	11	66.58	18.62	30–96	12
j	33.00	5.10	24–36	10	39.60	7.59	24–48	10	45.77	10.96	30–60	13
l	33.20	5.01	24–36	10	40.91	7.97	24–48	11	53.75	10.43	24–60	12
w	30.60	7.18	18–36	10	32.73	5.61	24–36	11	35.23	6.76	24–48	13
Affricates												
ʧ	34.20	4.05	24–36	10	41.64	8.71	24–54	11	53.50	10.69	36–72	12
ʤ	34.20	4.05	24–36	10	41.27	8.68	24–54	11	51.00	11.82	36–72	13

Note. Em dashes indicate not acquired by the oldest child in the study, not assessed, or no variability.

[a]Each reported criterion relates to the definitions used in each of the 15 studies. Typically, 90% criterion indicates that 90% of the participants produced the consonant correctly.
[b]The number of studies varies because of whether the consonant was included in the study or whether it was not acquired by children in the oldest age group examined in the study.

Crowe, K., & McLeod, S. (2020). Children's English consonant acquisition in the United States: A review. *American Journal of Speech-Language Pathology, 29*(4), 2155-2169. https://doi.org/10.1044/2020_AJSLP-19-00168.

SLPs consider average age of consonant acquisition within a broader context of the child's overall ability:

> "Best practice entails using a richer representation of development, specifically reflecting the range and variability inherent in development. Moreover, diagnosing the presence of a speech sound disorder requires more than just a single measure. The diagnostic accuracy of different cutoffs for developmental norms has not been established. Recent standardized tests of articulation do have acceptable diagnostic accuracy. However, even when diagnostic accuracy meets conventions for acceptability, no single measure is 100% accurate. This means that an accurate diagnosis can only be achieved by combining multiple measures to converge on a diagnosis. Developmental norms are one source of information. When coupled with additional measures that reflect different aspects of speech sound development (e.g., test scores that reflect total number of errors, normative data about error types and patterns), a well-reasoned and likely accurate diagnosis can be achieved" (Storkel, 2019, p. 73).

Storkel, Holly. (2019). Using Developmental Norms for Speech Sounds as a Means of Determining Treatment Eligibility in Schools. *Perspectives of the ASHA Special Interest Groups. 4*. 67-75. 10.1044/2018_PERS-SIG1-2018-0014.