

## Development of Speech Sounds

### How do speech sounds develop?

Children develop speech sounds in a pattern over time. The majority of English-speaking children acquire most consonants between the ages of 3-4 years.

The age of acquisition is the age at which 90% of children have developed a speech sound. Please see the table below for more information.

Age of acquisition (90% of children)	Sounds
3 years	p, b, t, d, k, g, m, n, ng, f, s, z, h, w, l, y
3 years and 6 months	ch
4 years	j
5 years	sh, v
6 years	r
7 years	th (the), th (think)

(Dodd, Holm et al. 2003; Grunwell 1987)

### Phonological processes

Children often simplify sounds whilst their speech is still developing. These simplifications are called 'phonological processes' and are usually a part of typical development. Common phonological processes are:

Phonological process	Definition / example	Approximate age the process finishes
Final consonant deletion	The final consonant of a word is missed off. e.g. 'cat' is said as 'ca' and 'book' is said as 'boo'	3 years
Fronting	Sounds made using the back of the tongue ('k, g') are replaced with sounds made using the front of the tongue ('t, d'). e.g. 'car'-'tar' and 'girl'-'dirl'	3 years 6 months
Stopping	Sounds such as 'f, v, s, z, sh' are replaced with sounds such as 'b,	3 years 6 months-5 years

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	p, t, d'. e.g. 'sun'-' <u>b</u> un', 'fire-' <u>b</u> ire'	
Consonant harmony	A sound is replaced with another sound in that word that is the same or similar. e.g. 'bus'-' <u>b</u> ub', 'dog'-' <u>d</u> od'	3-4 years
Weak syllable deletion	The weak syllable is missed out. e.g. ' <u>b</u> anana'-' <u>n</u> ana'	4 years
Cluster reduction	The consonant cluster (two consonants together) is reduced to one consonant. e.g. ' <u>fl</u> ower'-' <u>f</u> ower', ' <u>cr</u> ab'- ' <u>c</u> ab'	4 years 6 months
Deaffrication	'ch' and 'j' sounds are replaced with sounds such as 'sh' and 's'. e.g. ' <u>ch</u> ips'-' <u>s</u> hips'	5 years
Gliding	'l' and 'r' sounds are replaced with 'w' and 'y' sounds. e.g. ' <u>r</u> abbit'- ' <u>w</u> abbit', ' <u>r</u> ed'-' <u>w</u> ed'	5-6 years

(Adapted from: Bernthal et al. 2013 and Grunwell & Dodd 1992).

All phonological processes should have disappeared by 6 years and 11 months. There are other less common phonological processes (not mentioned above) that are not usually part of typical speech sound development. Your speech and language therapist will be able to tell you if your child's speech sound development is not following the normal pattern.