

# Articulation norms and acquisition of phonological rules

An articulation disorder involves problems making sounds. Sounds can be substituted, left off, added or changed. These errors may make it hard for people to understand what your child is saying. Young children often make speech errors. For instance, many young children sound like they are making a “w” sound for an “r” sound (e.g., “wabbit” for “rabbit”) or may leave sounds out of words, such as “nana” for “banana.” The child may have an articulation disorder if these errors continue past the expected age.

Speech and Language Therapy focuses on communication skills to enhance development, restore function and to prevent disability from pediatric conditions, illness and injury. Our speech language pathologists use therapeutic interventions that address communication deficits with the goal of remediation. Cook Children’s and our Speech Language Pathologists are committed to helping children reach their full potential and improving their quality of life.

## Phonological Processes

Process	Type	Example	Age by which process should be suppressed
Syllable Structure	Weak syllable deletion		By age 3
	Cluster reduction	“bue” for “blue”	By age 3
	Reduplication		By age 3
	Final consonant deletion	“hou” for “house”	Between 3 and 3 ½
Substitution	Stopping	“pencil” for “pencil”	Between 2 ½ and 3
	Fronting	“tup” for “cup”	Between 2 ½ and 3
	Vocalization	“be” for “pea”	By age 3
	Gliding	“wabbit” for “rabbit”	By age 5
Assimilatory	Labial assimilation		By age 3
	Alveolar assimilation		By age 3
	Velar assimilation		By age 3
	Prevocalic voicing		By age 3
	Devoicing		By age 3

**Articulation:** Ages by which 90 percent of children have acquired these sounds:

Age	Sounds (phonemes)
2 years	p, m, h
2 ½ years	b, d, n, w
3 years	g, k, t
3 ½ years	f
4 years	ing
5 years	ch, l, s, sh, j, z
5 ½ years	r, v
6 ½ years	Consonant blends
7 years	Th voiced
7 ½ years	Th unvoiced

