Normal child development , hearing and vision

The term ‘child development’ is used to describe the skills acquired by children between birth and about 5 years of age, during which there are rapid gains in mobility, speech and language, communication and independence skills.

Normal development in the first few years of life is monitored:

• by parents

at regular child health surveillance checks

• whenever a young child is seen by a healthcare Professional

Fields of development

- Gross motor
- Vision and fine motor
- Hearing, speech and language
- Social, emotional and behavioral

A deficiency in any one skill area can have an impact on other areas. For instance, a hearing impairment may affect a child’s language, social and communication skills and behavior

. Developmental milestones

Important developmental stages are called developmental Milestones

When considering developmental milestones:

- The median age is the age when half of a standard population of children achieve that level
- Limit ages are the age by which they should have been achieved. Limit ages are usually 2 standard deviations (SD) from the mean

Is development normal?

When evaluating a child's development, consider:

• the sequence of developmental progress

• the stage the child has reached for each skill field

• if progress is similar in each skill field

• how the child's developmental achievements relate to age

Normal development

implies steady progress in all four developmental fields with acquisition of skills occurring before limit

ages are reached.

If there is developmental delay, does

it affect all four developmental fields (global delay), or

one or more developmental field only (specific developmental delay)

Gross motor development (median ages)

Newborn	Limbs flexed, symmetrical posture
	Marked head lag on pulling up
6–8 weeks	Raises head to 45º in prone
6–8 months	Sits without support
– at 6 months:	with round back
– at 8 months:	with straight back (shown)
8–9 months	Crawling
10 months	Cruises around furniture
12 months	Walks unsteadily, broad gait, hands apart
15 months	Walks steadily

Vision and fine motor (median ages)

6 weeks	Follows moving object or face by turning the head (illustrated
4 months	Reaches out for toys
4–6 months	Palmar grasp

7 months	Transfers toys from one hand to another	
10 months	Mature pincer grip	
16–18 months	Makes marks with a crayon	
14 months–4 years	Tower of three(18 months)	
	Tower of six (2 years)	
	Tower of eight or a train with four bricks (2.1/2 years)	
	Bridge (from a model) 3 years	
	Steps (after demonstration) 4 years	
2–5 years	draw	Line (2 years
		Circle (3 years)
		Cross (3.1/2 years)
		Square (4 years)
		Triangle (5 years)

Hearing, speech and language (median ages)

NEWBORN	Startles to loud noise
3–4 MONTHS	Vocalises alone or when spoken to, coos and laughs
7 MONTHS	Turns to soft sounds out of sight
7–10 MONTHS	At 7 months, sounds used indiscriminately. At 10 months, sounds used discriminately to

	Parents
12 MONTHS	Two to three words other than 'dada' or 'mama'
18 MONTHS	6–10 words. Shows two parts of the body
20–24 MONTHS	Uses two or more words to make simple Phrases
2.1/2–3 YEARS	Talks constantly in 3–4 word sentences

Hearing tests

Newborn	Evoked otoacoustic emission (EOAE Auditory brainstem response (ABR) audiometry
7–9 months of age	Distraction testing
18 months to 4 years	Performanceand speech discrimination testing
4 years -	Audiometry

Vision testing

Birth	Face fixation and following
6–8 weeks	Fix and follow bright toy
6 months	Reaches well for toys
2.1/2 years	Can identify or match pictures of reducing size
4 years	Can identify or match letters in linear

	optotype book
6 years Onwards	Can identify or match letters on a LogMAR chart

Source

Illustrated textbook of pediatrics

Further reading

Nelson text book of pediatrics