# CHILD DEVELOPMENTAL MILESTONES



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# What are child development milestones?

# Developmental milestones are convenient markers of developmental changes that are expected in a child at any given age

Every child goes through these developmental changes with increasing age, from being a completely dependent, reactive infant to becoming a proactive and relatively independent child.



Wholly dependent and reactive infant



Proactive and relatively independent child at school entry

However, all children are different and there is a wide individual variation in the rate of achievement. The typical milestones are achieved only in about half of the children at any time.

Even the same child may achieve some milestones in some domains faster and in others slower than other children.

# When should I worry about the child missing a milestone?



and Bo II!

- understand your child's developmental time course
- help you be more watchful of your child's development
- help you identify means to promote the development of your child





When should I seek help from a paediatrician if I notice cause for concern during my child's development?

You spot a red flag - An indication of delay in a child's developmental time course

Developmental regression - An indication that the child has lost abilities acquired earlier

Other risk factors during pregnancy or after birth of the baby –

https://www.nayi-disha.org/article/risk-factors-developmental-disorders-during-phase-pregnancy

# Risk factors for development

The risk factors do not always cause a problem, they simply increase the risk, particularly if 2 or more risks coexist.

Awareness of risk factors motivates parents to reduce their effect by promoting the child's development and acting on their concerns.

# Child'sbirth history

- Maternal health during pregnancy(maternal illness, poor nourishment, aicohol, smoking or drugs),
- Gestation at birth e.g. prematurity (less than 37 weeks at birth), low birth weight (less than 2 Kg)
- Type of delivery: neonatal problems (e.g. meconium aspiration, resuscitation, hypoxia, ventilation, seizures) any feeding problems requiring assistance

#### Gestation at birth, Type of delivery

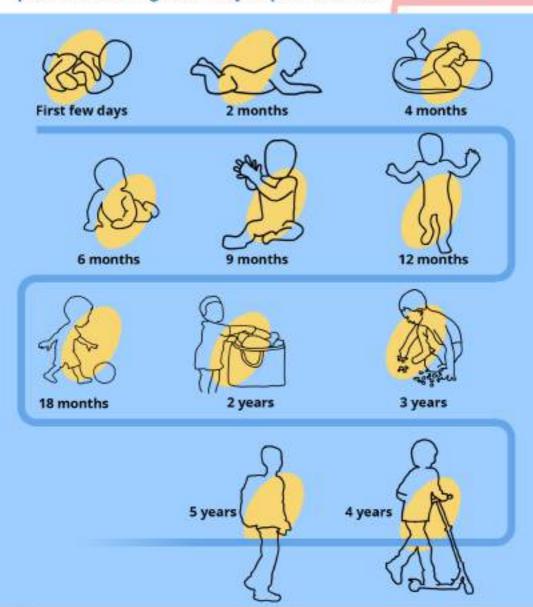
- Chronic III health e.g. anaemia, recurrent diarrhoea, malaria, TB,
- Malnourishment and stunting of growth; below 5th percentile on height and/or weight for age
- Head circumference below the 5th percentile for age

#### Family information

- Parents' health including mental health (e.g. depression, psychosis), poor parental education.
- Social background (e.g. low financial status, poor housing, no support from the extended family or neighbours)
- Siblings (chronic health problems, any developmental problems)

# Age-specific development milestones

Let us review a child's developmental milestones across different ages, and identify potential Red flags that may require attention Look out for developmental Red flags!



# What to expect a newly born infant to do in the first few days of birth?



They can suck and coordinate their breathing during feeding. They turn towards a nipple or a teat if it's brushed against their cheeks and open their mouth if the upper lip is stroked.

They recognize their mother's smell and voice soon after birth.

They like soothing voices and touch.

They look at faces and objects, if nearby. They are startled by a sudden loud noise and stare towards weak light.

They make little cooing or grunting noise and cry quite strongly.

They can grasp a finger placed in their hands strongly

Babies show many abilities during the first few days after birth

Their responsiveness varies, but they can interact with their carers through eye contact, spontaneous or imitative facial gestures (protruding their tongue or pouting their

Babies' often sleep for long periods and are only awake for short periods.

Their muscles are weak; they have no control of their head posture or back. The arms and legs cannot be stretched fully and the hands are fisted.

There arm and leg movements are jerky and random, gradually becoming smooth and coordinated over the next few months

**Emerging abilities** 

# What to expect at age





# Movement and posture (Gross motor)

- Lying on the back the arms and legs movements are smoother and not jerky.
- Hands are kept intermittently open
- The head is held in line with the body
- When laying on abdomen the head is held up.
- Grasps a finger strongly when placed in the palm

# Language and communication

- Makes little cooling noises
- Makes facial, tongue and body movements in response to playful 'talking' by parents. (also a social behaviour)
- When lying on the back, turns head towards the sound (also a hearing behaviour)

#### Social

Smiles in response to playful "talking" by parents.

# Learning, thinking, problem solving

Pays attention to faces and recognizes people

# Visual and hearing behavior

- Briefly follows a pencil light or a bright object
- Gets startled by a loud sound, and becomes still in response to a ringing bell (4weeks)



Vocalisation
Social interaction
Vision and hearing behaviour

- Doesn't respond to loud sounds
- Doesn't watch things as they move
- Doesn't smile at people
- Doesn't bring hands to mouth
- Can't hold head up when pushing up on tummy





- Head control is good when pulled to sit
- Keeps hands mostly open- NOT fisted
- Brings hands together in midline over chest.
- Can now hold a small toy and brings it to the mouth
- Reaches with both hands to grasp a toy

### Language and communication

- Makes a lot of little sounds, and starts to babble
- Combines sounds with smiles and eye contact.

#### Social

- Looks at parent's eyes and smiles in response
- Responds to playful interactions with pleasure
- Hand and eye movements are coordinated.
- It's e.g. looks at a toy held in hand and reaches to grasp a toy
- Recognizes familiar people and objects from a distance.

# Hearing and visual behaviour

- May move head from side to side as if searching for the sound source
- Visually very alert





Vocalisation
Social interaction
Vision and hearing behaviour

- Doesn't watch things as they move
- Doesn't smile at people
- Cannot hold head steady
- Doesn't coo or make sounds
- Hands are kept fisted
- Has trouble moving one or both eyes in all directions



- Rolls over from front to back and, by 7 months, back to front
- Begins to sit without support with a straight back (5-9 months)
- Reaches out and grasps objects
- Passes a toy from one hand to another
- With support, bears weight on legs and stands.
- Lifts head and chest well, when lying on their stomach

# Language and communication

- Babbles tunefully, uses single or double syllable sounds 'a-a', 'muh', 'baa',
- Responds to own name

#### Social

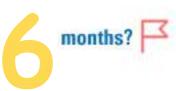
- Shows affection for caregivers
- Shakes a rattle deliberately
- Still takes things to mouth
- Beginning to show awareness of strangers

# Learning, thinking, problem solving

- Show curiosity in objects, looking and reaching out
- Passes things from hand to hand while looking

# Visual and hearing behaviour

- Stares at interesting small objects at 30 cms
- Turns to sound to locate the source





Vocalisation Social interaction Vision and hearing behaviour

- Doesn't grab things at reach
- Doesn't display affection
- Doesn't respond to sounds or laughs
- Doesn't make vowel sounds ("ah", "eh", "oh")
- Remains stiff with tight muscles
- Appears floppy like a rag doll





- Sits independently, without losing balance
- Crawls (from 7 months)
- Pulls self to stand (7-12 months)

# Smaller movements (fine motor)

- Reaches out with one hand, grasps a toy and explores it.
- Tries to put objects in and out of a box
- Picks up a very small object (like a bead), or a string, with thumb and index finger

# Language and communication

- Babbles foudly using long repetitive sounds, e.g., 'da-da-da'
- Responds when name is called [5-10 months]
- Understands 'not' and 'bye-bye' (6-9 months)
- Points at things with fingers

#### Social

- Looks between objects and people to share interest.
- Is aware of strangers.
- Plays social games such as 'peek-a-boo'
- Claps hands in imitation
  - Gives things to others

# Learning, thinking, problem solving

- Looks and visually searches for toys dropped or moving out of sight
- Can play with simple action toys e.g. pop-up toys (sause and effect understanding
- Pulls at a string to get a roy (mean-end understanding)

# Visual and hearing behaviour

- Looks and pokes at objects with index finger
- Visually follows moving toys across the room
- Turns to search for faint sounds on either side

# Independence

Holds, titles and thews small pieces of food





Vocalisation
Social interaction
Vision and hearing behaviour

Remember, some children achieve milestones in some domains faster and in others slower than other children. Review your child's milestone at each age holistically across all domains while looking for red flags. Missing a milestone here or there is usually of no consequence.

- Cannot bear weight on legs
- Doesn't sit with help
- Doesn't babble ("mama", "baba")
- Doesn't engage in back-and-forth play
- Doesn't respond to own name
- Doesn't seem to recognize familiar people

Doesn't move toys from hand to hand



- Pulls to stand and walks along furniture.
- Walks with one hand held

# Smaller movements (fine motor)

- Can grasp small objects e.g. 1 inch blocks with finger tips (mature grasp)
- Can release a toy gently to give

# Language and communication

- Uses tuneful strings of words to communicate e.g. 'mama'
- Tries to repeat words
- Understands some frequently used words and simple directions e.g. "give it to mum/dad"
- Uses body language e.g. shakes head for no, waves a bye.

#### Social

- Anxious with strangers, cries if parents leave
- Enjoys joint play with adults e.g. peek-a-boo

# Learning, thinking, problem solving

- Searches for things if hidden in sight, looks for the toy at its original location
- At 13 months, places one cube on top of another
- Puts little objects in and out of a cup or a box
- Uses objects functionally, e.g., hair brush, telephone

# Visual and hearing behavior

- Shows interest in pictures, watches movement of people, animals and vehicles
- Locates sound and responds to name

### Independence

- Drinks from a lidded cup.
- Holds a spoon and attempts to feed self
- Helps with dressing by holding out arms



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- Doesn't crawl
- Can't stand even with support
- Doesn't play hide-and-seek
- Doesn't say word like sounds
- Doesn't wave or shake head
- Doesn't point to things
- Lost skills she/he once had

16

# What to expect at age months?



# Movements and posture

- Walks independently with feet slightly wide apart for balance
- Squats to pick up a toy off the floor

### Smaller movements (fine motor)

- Beginning to show preference for using one hand
- Turns pages of a book, several at a time.
- Holds a pencil in a grasp with arm slightly inward

# Learning, thinking, problem solving

- Does to-and-fro scribble with a pencil
- Makes a tower of 3- with 1-inch blocks.

# Language and communication

- Uses a mixture of word like sounds and several (6-20) words
- Obeys one key word instructions, e.g., 'get your shoes' or 'shut the door'
- Points to body parts e.g. 'hair', 'shoes' and 'nose' on request

#### Social

- Plays alone but likes to be near familiar people
- Understands a person's desires from their expressions [18-24 months]

#### Play

- Does not bring toys to the mouth
- Shows interests in household objects and imitates simple, everyday activities such
  as feeding doll, reading book [15-18 months]

17

- Acts out familiar routines in play using e.g. handing out cups in tea-party
- Treats dolls and teddies as babies, e.g., hugging, feeding

#### Independence

- Uses a spoon to feed self
- Indicates toileting needs



Vocalisation
Social interaction
Vision and hearing behaviour

- Can't walk
- Doesn't point to show things to others
- Does not respond to his/her name
- Doesn't relate to familiar things
- Trouble speaking even 3-4 words
- Doesn't notice when a caregiver leaves or returns
- Lost skills she/he once had



- Runs with good balance avoiding obstacles
- Walks up and down the stairs with railing or wall support (two feet to a step).
- Throws small ball back and forth
- Can kick a ball

#### Smaller movement (fine motor)

- Holds a pencil using thumb and first two fingers
- Expresses hand preference
- Can turn pages one at a time.

#### Vision

Can do picture match with objects and books

#### Learning, thinking, problem solving

- Builds tower of six or seven cubes.
- Puts simple shapes (circle, square, triangle) in a jigsaw if given in the right order
- Does circular scribble with a pencil and can imitate a vertical line

#### Language and communication

- Uses fifty or more words and joins a few two or more words together [18-30 months]
- Can name familiar objects and people in pictures.
- Refers to self by name or pronoun (me)
- Frequently repeats words
- Follows two keyword commands, e.g., Put your teddy in the bag
- Can select an object from a display of 3 or 4 objects

#### Social

- Constantly demanding attention
- Plays contentedly near other children but not with them

#### Play

Plays simple make-believe activities with toys. E.g. Pretends is brick is a car or a banana a telephone [18-24 months]

#### Independence

Can use an open cup to drink and a spoon to feed self.



Vocalisation
Social interaction
Vision and hearing behaviour

- Doesn't use any 2-word phrases (For e.g."mummy come")
- Doesn't know what to do everyday things (For e.g. comb, fork)
- Doesn't follow simple instructions
- Doesn't walk steadily
- Lost skills she/he once had



- Can stand and walk on tiptoes
- Can throw a ball overhand and catch large ball

#### Smaller movements (fine motor)

- Holds pencil between the first two fingers and thumb
- Cuts paper with toy scissors (neatly from 3 % years)
- Can turns book pages one at a time

#### Learning, thinking, problem solving

- Builds tower of nine or ten cubes, a 4-brick train with a chimney and a bridge of three cubes from a model (33-42 months)
- Counts up to ten or more and, when asked, can give "just two" objects.
- Copies a circle, imitates a cross, draws a person with head and one or two other parts
- Carl match colors and knows names of some colors

#### Language and communication

- Uses 3-4 word sentences and asks 'who', 'what', where' questions
- Uses prepositions (e.g. in/on/under) and pronouns "I", "you" and plurals correctly
- Can follow instructions with three keywords e.g. "put the red pencil in the cup"
- Can identify objects by function, e.g., 'Which one do we eat with?'
- Understands descriptive concepts such as 'big/little', 'hot' and 'the same'.

#### Social

- Joins in play and shares with other children, understands the idea of "mine" and "his" or "hers"
- Takes turn in games, can now separate easily from parents

#### Play

Participates in pretend play, in addition to familiar activities and events

#### Independence

- Ean eat with a spoon and a fork
- Can wash hands
- Can put some clothes on



Vocalisation
Social interaction
Vision and hearing behaviour

- Falls down a lot/has trouble with stairs
- Drools or has very unclear speech
- Doesn't speak in sentences
- Doesn't understand simple instructions
- Can't work simple toys
- Doesn't engage in pretend play
- Doesn't play with toys or friends
- Doesn't make eye contact
- Lost skills she/he once had





- Can stand on one foot for 3-5 seconds and hop
- Good at throwing and catching

# Smaller movement (fine motor)

Holds and uses pencil with good control, like adults

# Learning, thinking, problem solving

- Builds three steps with six-cubes after demonstration.
- Copies a cross; draws a person with head, legs and trunk and, usually, arms and fingers
- Matches and names four primary colors correctly

# Language and communication

- Speech mostly clear
- Listens to and describes events from the past, sometimes confusing fact and fantasy
- Can count up to 20 (rote count)

#### Social

- Would rather play with other children than alone
- Shows sense of humour during talk
- Talks about his/her interests with others
- Understands taking turns as well as sharing
- Shows sympathy for play-mates in distress

#### Play

- Likes pretend play and more complex games.
- Negotiates verbally with other children.

# Independence

- Can wash and dry hands
- Can undress and dress except for faces



Vocalisation
Social interaction
Vision and hearing behaviour

- Can't jump in the same spot
- Has trouble scribbling
- Shows no interest make-believe games
- Doesn't follow three-keyword requests
- Doesn't understand "same" and "different"
- Doesn't use "me" and "you" correctly
- Speech is unclear & difficult to understand
- Ignores familiar faces
- Lost skills he/she once had





- Can walk on narrow line.
- Can stand on one foot for 8-10 seconds.
- Can hop 2 or 3 metres forward on each foot

# Smaller movements (fine motor)

Writes and draws with good control.

# Learning, thinking, problem solving

- Can make models with blocks when shown, such as four steps from ten cubes [5-5 % years].
- Copies a square and a triangle
- Draws a person with head, trunk, legs, arms and features
- Ean count 10 or more things correctly

# Language and communication

- Speech is clear, fluent and grammatically accurate
- Uses future tense in speech correctly.
- Can communicate their home address, full name, age and birthday to others.
- Understands most of what is said and uses terms such as 'first' and 'last'.

#### Social

- Can hide their emotions
- Expresses well and responds in social settings
- Chooses own friends, want to please and be like friends.
- Has a sense of humour

### Play

Plays imaginatively, creating scenes and stones using miniatures.

25

Follows rules of games during play

#### Independence

- Washes and dries their face and hands
- Dress and undress by themselves
- Can use toilet independently



Vocalisation
Social interaction
Vision and hearing behaviour

- Doesn't respond to people well
- Has trouble focusing on one activity
- Unusually withdrawn and not active
- Can't tell the difference between real and make-believe
- Doesn't use plural or past tense properly
- Doesn't draw pictures
- Can't brush teeth, wash and dry hands, or get undressed without help

# Please visit out web-page for other resources on child development

Here are some other resources that can be found on our website

nayi-disha.org



A child's language development & ways to promote it



An infant's hearing behaviour A checklist for parents



Importance of play in early intervention

Feel free to write to us with your suggestions or queries at contactus@nayi-disha.org

# The content in this booklet, expert feedback and guidance has been provided by



**Dr.Ajay Sharma**Neurodevelopmental Pediatrician

He is passionate about enhancing knowledge and skills of practitioners and parents and runs a website http://www.enablenet.info

This booklet has been created by Nayi Disha Resource Centre



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