

Motor Skill Milestones

Neonate and First Month

Baby orients visually when head is supported
Baby moves both arms in wide, shoulder originating movements
Elbows are flexed and recoil into flexion when passively extended
During active periods, baby kicks with rhythmical and reciprocal patterns
Baby's hips, knees and ankles recoil into flexion when passively extended
When pulled to sit, baby changes facial expression to indicate awareness that something is wrong with head position
Baby takes weight and extends the legs
When leaned forward while standing, baby responds with well-organized reciprocal walking movements

Second Month

Baby can track from side to midline to side
Baby moves shoulders into abduction and external rotation
Baby brings head and mouth to hand for self-calming
Baby kicks with a variety of lower extremity movements
Baby attempts to lift head when pulled to sit, but does not have sufficient neck muscle control. Baby may try to visually fixate on examiner for stability
Baby lifts head and briefly sustains it

Third Month

Baby uses symmetrical and asymmetrical head movements
Baby is alert and aware of the environment
Baby consistently follows an object or face horizontally from side to side and vertically
When head is actively stabilized at midline, visual convergence begins and baby can regard a toy in midline
Baby uses symmetrical and asymmetrical upper extremity movements and postures
Baby actively moves arms:

- Shoulder external rotation 90 degrees and internal rotation onto body
- Shoulder abduction to 90 degrees, adduction to sides
- Elbow extension and flexion

Baby brings hands to the body and explores mouth, body or clothing
Baby kicks with symmetrical and reciprocal patterns
Baby lifts head up 45 degrees to 90 degrees midline and maintains it without bobbing
Baby moves elbows in line with or in front of the shoulders
Baby usually assumes frog-legged position (Symmetrical hip flexion, abduction, external rotation, knee flexion, and ankle dorsiflexion and eversion)
Baby initially has a head lag, but as the baby comes closer to upright position, baby lifts head without chin tucking
In sitting, baby extends back and maintains weight on the ischial tuberosities
Baby rights head with hyperextension and scapular adduction when the shoulders are in front of the hips

Baby accepts weight on both feet

Fourth Month

Baby rolls from supine to sidelying

Baby can actively flex head, tuck chin, and maintain the head in midline

Baby briefly sustains midline visual convergence

Baby uses abdominals and hip flexors to flex the hips to 90 degrees and slightly lift buttocks during hands-to-knees play

Baby experiments with anterior and posterior pelvic tilts

Baby brings hands to face

Baby brings hands together above chest

Baby reaches hands to hips

Baby reaches hands to flexed knees

Baby uses bilateral reaching patterns

Baby moves legs from frog-legged position to hip flexion with abduction

Baby moves legs symmetrically, alternating between total flexion and total extension

Baby occasionally uses dissociated lower extremity movements

The lower extremities mirror the upper extremities during reaching: arms flex/legs flex; arms extend/legs extend

Baby exhibits symmetrical flexion as the dominant component of rolling. Both hips and knees are flexed and the hands are together or on the knees

Fifth Month

Baby actively flexes and reaches hands to feet

Baby brings feet to mouth

Baby rolls from supine to sidelying

Baby tucks the chin when engaged in supine flexion activities

Baby dissociates eye movements from head movements. Baby can use eyes to track an object without moving the head

Baby uses vision to guide reaching and grasping

Baby flexes against gravity, lifting buttocks without flexing spine while reaching hands-to-feet

Baby reaches with bilateral symmetrical arm movements

Baby reaches for and tactually explores the knees, legs and feet of lifted legs

Baby uses vision to orient hands before grasping an object

Baby uses fingers to hold objects firmly in the center of the palm

Baby can bring a toy into the visual field and visually inspect it

Baby moves lower extremities with symmetrical and asymmetrical movements

Baby kicks with dissociated lower extremity movements

Baby can flex hips to nearly 180 degrees and bring feet to mouth

Baby's lower extremities no longer mirror upper extremities during reaching

Baby rolls to sidelying from a symmetrically flexed position

Baby lifts head and laterally flexes neck when in sidelying

In sidelying, baby exhibits brief lateral flexion of the trunk during lateral flexion of the head

In sidelying, baby bears weight on one arm and reaches with the other arm

In sidelying, baby dissociates legs; top leg remains flexed and abducted, bottom leg extends.

Sixth Month

Baby actively flexes, reaches hands to feet, and plays in mid-positions
Baby dissociates eye movements from head movements. Baby can track an object with the eyes, without the head moving
Baby flexes against gravity, lifting buttocks without flexing spine
Baby reaches with one or both hands
Baby reaches hands to lifted feet
Baby grasps an object with one hand and explores it with the other hand
Baby experiments in the hands-to-feet position
Baby brings and holds hips close to 90 degrees of flexion
Baby dissociates the lower extremities in supine, placing one foot on the opposite knee
Baby maintains and recovers disturbed balance while legs are lifted in supine
Baby actively rolls from supine to prone
Baby pushes up onto extended arms

Seventh Month

Baby rarely stays on back for a very long time
Baby is independent and functional in prone
Baby bears weight on the forearms and extended arms
Baby shifts weight in the shoulder girdle and pelvic girdle and reaches while in forearm and extended arm weight bearing
Baby shifts weight in the lower trunk and pelvis and assumes a position of lower extremity dissociation
Baby reaches in all directions for toys
Baby uses radial-palmar grasp and inferior scissor grasp with adducted thumbs and flexed fingers
Baby spends much of the time in prone in a laterally shifted, asymmetrical posture
In sidelying, baby dissociates the lower extremities
 Baby extends weight-bearing leg at hip and knee
 Baby flexes and abducts unweighted leg at hip and flexes at knee
Baby transitions from back to all fours
 Baby initiates transitions from prone to quadruped with dissociation of the lower extremities
 Baby maintains upper extremity extension and lifts pelvis laterally over flexed leg
Baby rocks in on all fours
 Baby rocks forward and backward, fixing with hip flexors
 Baby initially rocks with large movements and falling
Baby shifts weight over the wrists and hands during rocking
 Baby shifts weight forward over hands
 Baby shifts weight laterally over hands
Baby transitions from quadruped to prone

Baby initiates pull to sit, by independently flexing the head and actively pulling with the arms
Baby sits independently with straight back
Baby demonstrates head rotation leading to trunk rotation, which causes subtle weight shifting to the face-side
Baby bangs and shakes a toy
Baby transfers toy from hand to hand
Baby rises to stand independently by using upper extremities to pull up on furniture or people
Baby uses both arms and legs to stabilize in standing
Baby tries stabilizing with one hand while the other hand reaches
Baby takes full weight on the legs when held around the chest or by the hands in standing
Baby attempts to walk forward when supported in standing

Eighth Month

Baby uses a variety of lower extremity postures when sitting
Baby leans symmetrical trunk over flexed leg to reach for toys and to transition to quadruped
Baby practices trunk rotation in sitting. Mobility is at the hip joint.
Baby reaches in a variety of directions with a variety of reaching patterns
Baby uses a radial-digital grasp, opposing the thumb and fingertips
Baby manipulates, transfers, and releases toys at will
Baby grasps two objects simultaneously and bangs them together in midline
Baby moves from sitting to all fours
Baby crawls on hands and knees
Baby carries small toys in the hand when crawling
Once baby lifts body, baby maintains weight on arms while adjusting the legs under the pelvis
Baby climbs up on furniture, stairs and people
Baby abducts the legs and uses a wide base of support to stabilize the posture
Baby cruises around furniture

Ninth Month

Baby is independent and functional in sitting
Baby easily transitions in and out of sitting
Baby's trunk control is well developed; therefore, baby uses a variety of shoulder and forearm movements for reaching and moving
Baby uses an inferior pincer grasp, with thumb adduction to the lateral border of the index finger
Baby uses crawling as primary means of locomotion to explore and to obtain and transport toys
Baby assumes kneeling position with and without use of hands
Baby can climb up into a chair but does not know how to turn and sit down
Baby can ascend stairs but does not know how to descend
Baby lowers self from standing to retrieve toys from the floor

Baby abducts face-side leg with hip flexion and knee extension and places foot on the floor

Baby walks forward when supported at the hands in standing

Tenth Month

Baby can long sit with the legs in line with the body

Baby moves arms with control and freedom in all sitting positions

Baby isolates index finger to point and poke into little holes

Baby crawls or climbs onto or over objects of different heights, widths and stability

Baby demonstrates motor planning and problem solving skills by experimenting with and adjusting different motor plans in climbing and crawling

Baby rises to stand with minimal upper extremity support. Baby may bear weight on only one hand

Once in standing, baby uses leg muscles and minimal assistance of one hand to control the posture

Baby makes needed postural adjustments when reaching for objects in different locations

Baby uses a variety of cruising patterns

Baby begins to reach to furniture of different heights while in cruising

Baby begins to stand and walk with one hand held by adult

Eleventh Month

Baby easily moves in and out of all sitting postures

Baby uses trunk rotation to reach for objects at the side

Baby uses a variety of elbow and forearm movements when that arms are away from the sides

Baby manipulates a toy with the hands while visually inspecting it

Baby tires to climb into and out of large containers, such as a box

Baby maneuvers the body from the climbing position to sitting, facing the direction of ascent

Baby begins to descend from the furniture by moving from quadruped backward off the furniture

Baby attempts to rise and stand without support

With one hand on furniture, baby can rise to stand through a half-kneeling posture

Baby can stand and play at furniture

With one hand on the furniture, baby can lower to a squat and rise again without difficulty

Baby walks independently with one hand on the furniture

Twelfth Month

Baby easily moves in and out of sitting to quadruped, kneeling, squatting and standing

During reach, baby extends and radially deviates the wrist to position the thumb and index finger for grasp

Baby's release is smooth and graded for large objects but still clumsy for small ones

Baby performs bimanual activities as mirror movements

Baby begins to use hands in complementary asymmetric roles, such as using one hand to hold a jar while using the other hand to unscrew the lid

Baby uses crawling to move quickly

Baby may use a squatting position for play

Baby climbs onto or into anything perceived as explorable

Baby can rise from quadruped to stand without external support

From standing, baby can lower the body with or without external support

Baby walks independently

Baby varies upper extremity patterns according to the goal