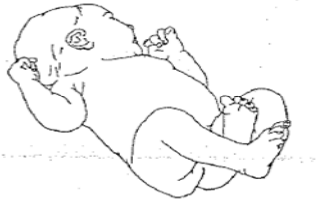


Description of normal development of functional motor skills

NEWBORN

Postural control

- Physiological flexion - provides stability for posture & random movements
- Neck righting
- Labyrinthine righting beginning in prone & supine
- Primary standing reaction



Source: Therapy Skill Builders

Gross Motor

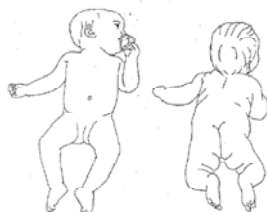
- Movements limited by available ROM
- Random movements ☹
 - *rhythmical alternating movements of limbs*
 - *Total body movements into extension or flexion*
 - *Primitive reactions elicited by a specific stimulus*
 - *Distal isolated movements*
- Lifts & turns head part way in prone
- Automatic stepping

Description of normal development of functional motor skills

Summary Chart 1-2 months

Postural control

- Relatively hypotonic as physiological flexion diminishes
- Head lags in pulled to sit; begins asymmetrical flexion by end of 2nd month
- Head righting (labyrinthine & optical) when tipped forward & backward in space
- Holds head upright momentarily when trunk is supported



Gross Motor

- Increased ROM
 - Thoracic & upper lumbar extension
 - Cervical & upper thoracic rotation
 - Hip extension, abduction & flexion / abduction / external rotation
 - Knee extension
- Lifts head in prone 45 deg by end of 2nd month
- Rotates head through greater range; in supine, uses asymmetrical posturing to provide stability; lateral weight shift to same side occurs in trunk
- Holds head erect briefly in supported sitting, not steady but bobs
- Begins more purposeful movements of arms & legs; uses trunk against the surface for stability
- Lower extremities disorganized with little or no weight bearing when place on feet; automatic stepping not elicited

Description of normal development of functional motor skills

Summary Chart 3-5 months

Postural control

- Head righting reactions developed; function head control in all positions
- Trunk righting when tipped forward & backward in space; lateral righting beginning in 5th month
- Landau reaction begins at 4 months, complete at 5-6 months
- Develops antigravity flexor & extensor activity in supine & prone, respectively
- Maintains symmetrical postures
- Weight shifts laterally through head, shoulders and upper trunk
- Beginning of postural activity to prepare for & support volitional movements

Gross Motor

- Increased ROM
 - Full ROM of cervical motion; cervical lordosis present
 - Thoracic & lumbo-sacral extension
 - Thoracic lateral & rotational motions
 - Plantarflexion



Description of normal development of functional motor skills

Summary Chart 3-5 months (cont'd)

Gross Motor

- Supine ⇄
 - Tucks chin (3 mths); lift head (5 mths)
 - Lifts, holds & moves limbs in space
 - Hands to knees (4 mths); hands to feet (5 mths)
 - Bridges (5 mths)
 - Rolls to side (4-5 mths)
- Prone ⇄
 - Lifts & holds head erect
 - Props on forearms (4 mths)
 - Pushes up on extended arms (5 mths)
 - Lifts arms & legs off surface (4-5 mths)
 - Swimming movements (4-5 mths)
 - Accidentally rolls to supine (4-5 mths)



Description of normal development of functional motor skills

Summary Chart 3-5 months (cont'd)

Gross Motor

- Sitting ➞
 - Sits upright for brief periods with upper trunk support (3 mths)
 - Sits upright 10-15 mins with lower trunk support (4 mths)
 - Props on arms in sitting with minimal or intermittent support (5 mths)
 - Sits erect in a variety of seats; needs safety strap (5 mths)
- Standing ➞
 - Stands with arms or hands held & wide base of support (4-5 mths)
 - May begin to bilaterally flex & extend knees (5 mths)



Description of normal development of functional motor skills

Summary Chart 6 months

Postural control

- Trunk righting reaction present when tipped in space
- Landau reaction mature
- Forward protective extension of the arms
- Equilibrium reactions in prone & supine
- Body-on-body righting response with spinal rotation
- Increased postural activity of lower body for maintaining postures & to accompany volitional movements
- Lateral weight shift through lower trunk & pelvis in prone
- Greater control for unilateral movements & asymmetrical postures



Description of normal development of functional motor skills

Summary Chart 6 months (cont'd)

Gross Motor

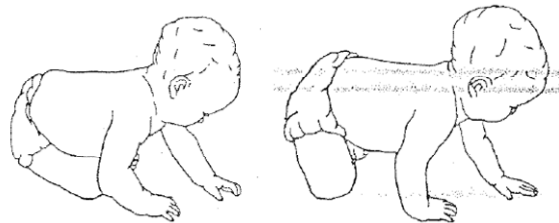
- **Supine** ➞
 - Holds arms & legs vertical
 - Rolls to side & prone
- Uses sidelying as a position for play; may weight-bear on one foot
- **Prone** ➞
 - Stretches arms forward
 - Plays with a variety of forearm & extended arm positions
 - Trunk elongation & lower extremity extension pattern on one side with trunk lateral flexion * lower extremity on the other side
 - Begins to assume quadruped
 - Tries to move self on floor
- Rolls between supine, sidelying, & prone with
- **Sitting** ➞
 - Sits well in high chair; enjoys bounce-type seats
 - Begins to sit independently with arm support
 - May reach with one arm while supporting with other
 - May sit briefly with no arm support but falls easily
- **Standing** ➞
 - Feet closer together
 - Greater hip extension
 - Requires less support
 - bounces

Description of normal development of functional motor skills

Summary Chart 7-9 months

Postural control

- Equilibrium reactions present in prone & supine (7 mths), in sitting & beginning in quadruped (8 mths)
- Protective extension of the arms sideways in sitting (8 mths)
- Increased postural activity to ➞
 - Maintain upright positions
 - Accompany functional movement in sitting, quadruped & standing at a support
 - Transition between sitting, quadruped & supported standing
- Increased ability to adapt posture prior to a movement for more efficient execution



Description of normal development of functional motor skills

Summary Chart 7-9 months (cont'd)

Gross Motor

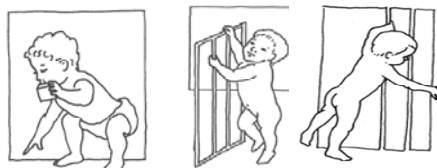
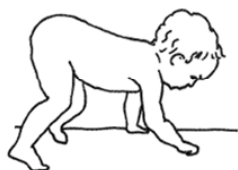
- Increased use of sidelying as a position for play with greater variety of postures; moves from sidelying to quadruped
- Maintains quadruped ⇄
 - Rocks forward & back
 - Reaches in all directions
 - Modifies position by weight-bearing on one or both feet rather than on knees
 - Transitions to sidelying, sitting, & kneeling with support
- Pivots sideways & belly crawls in prone
- Sits on floor without arm support ⇄
 - Able to move upper body over base of support to reach & play
 - Uses a variety of postures including side-sitting
 - Moves from sitting to prone
 - Transitions between sitting & quadruped



Description of normal development of functional motor skills

Summary Chart 7-9 months (cont'd)

- Creeps reciprocally on hands & knees using lateral flexion/elongation pattern of trunk
- May creep on hands, knee & foot or on hands & feet
- Pulls to standing at supported surface using mostly arms & upper body ⇄
 - Leans against support & plays
 - Lowers self to floor
- Cruises along furniture ⇄
 - Initially steps sideways
 - Learns to turn diagonal to support & step forward
- Stands with one hand held; begins to walk with 2 hands held in uncoordinated pattern
- Kneels at supporting surface with hip flexion, greater hip extension by 9 mths ⇄
 - Sits back on heels to play
 - Uses as part of transition to standing

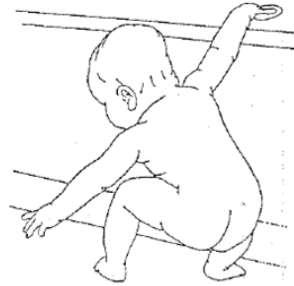


Description of normal development of functional motor skills

Summary Chart 10-12 months

Postural control

- Equilibrium reactions refined in sitting & quadruped, beginning in kneeling & standing
- Protective extension of the arms backwards in sitting (10 mths)
- Increased postural activity of the pelvic girdle & hips
- Efficient postural alignment with 'S' spinal curve
- Increases postural activity of the lower extremities
- Initiates & controls weight shift from the pelvic girdle in sitting & transitions



Description of normal development of functional motor skills

Summary Chart 10-12 months

Gross Motor

- Dynamic sitting with greater variety of patterns; improved ability to reach & play
- Sits on small chair or stool
- Sits up from sidelying
- More efficient transitions sitting / quadruped / standing
- Creeps upstairs
- Lowers self backward off furniture
- Pulls to stand & lowers self using less stable surfaces
- Stands with less support; improved ability to reach & play
- Begins independent standing
- Stands up without support through squat
- Walks with one hand held; pushes chair
- Begins independent walking

