



Typical & Atypical Development

Newborn



Gross Motor	Fine Motor and Vision	Communication (birth – 3 mo)	Feeding (birth – 3 mo)
• Physiological Flexion posture in preparation for anti-gravity extension • Clears airway in prone • No midline head posture • Random movements of UE/LE • Active kicking • <u>Pull to sit</u>: head lag • <u>Sitting</u>: rounded throughout, no head control • <u>Standing</u>: auto walking, hips behind shoulders.	• palmer grasp reflex	• Startles to loud sounds • Quiets or smiles when spoken to • Seems to recognize your voice and Quiets if crying • Coos and smiles • Turns head towards sound or voice	• Latches onto nipple/bottle • tongue moves forward/back to suck • Drinks 2-6oz. Of liquid per feeding; 6x per day • Sucks and swallows well during feeding



ATYPICAL - Newborn

- + absence of physiological flexion
- + cervical rotation preference
- + no airway clearance in prone or excessive extension
- + feeding issues
- + Impaired state regulation



1 month old



Gross Motor	Fine Motor and Vision	Communication	Feeding (birth – 3 mo)
• Overall flexed posture • No balance of flexors/extensors <u>Prone:</u> Weight bearing shifting down • Attempting to lift head <u>Supine:</u> more extension but no active flexion against gravity • ATNR <u>Pull to sit:</u> same <u>Sitting:</u> may attempt to lift head <u>Standing:</u> Bears weight	• hand more open • bring hands to head	• Startles to loud sounds • Quiets or smiles when spoken to • Seems to recognize your voice and Quiets if crying • Coos and smiles • Turns head towards sound or voice	• Latches onto nipple/bottle • Tongue moves forward/back to suck • Drinks 2-6oz. Of liquid per feeding; 6x per day • Sucks and swallows well during feeding



ATYPICAL – 1 month

- + increased tone
- + decreased phys. Flexion
- + limited arc of movement
- + absent reciprocal leg movement
- + Doesn't respond to loud sounds or watch things as they move
- + Unable to coordinate suck, swallow, breathing pattern



2 months



Gross Motor	Fine Motor and Vision	Communication	Feeding (2-3 months)
•Physiological flexion almost gone - Asymmetrical postures dominate but don't limit function (ATNR) <u>Prone:</u> Head righting beings in prone •Spine is mobilized while in prone and weight bearing moves down ••Cervical extension to 45 deg. In prone •<u>Reflexes:</u> Astasia- Abasia	•Grasp reflex present, but they can open	• Begins to smile at people • Can briefly calm himself • Coos, makes gurgling sounds • Turns head toward sounds • Pays attention to faces	• 4-7 breast of bottle feedings/day of 5-7 ounces each feeding • Interacts with caregiver during feeding through gaze



3 months



Gross Motor	Fine Motor and Vision	Communication (3-4 months)	Feeding (2-3 months)
• Beginning symmetry • Stronger righting responses • Hand to hand play - exploring through textures/sensory system • Pull to sit – decrease head lag	• Hands mostly open • Hands to mouth and can rest on trunk • Hand to hand play	• Babbles randomly	• 4-7 breast of bottle feedings/day of 5-7 ounces each feeding • Interacts with caregiver during feeding through gaze
<u>Prone:</u> prop on forearms (static)- strengthens shoulder girdle** <u>Supine:</u> Reaching overhead • Roll side lying > supine with control - abdominals are active • Cervical extension to go degrees in prone <u>Sitting:</u> Decreased rounding in cervical spine			



ATYPICAL – 2-3 Months

- + unable to right head at end range of pull to sit
- + unable to grasp toy
- + unable to attain and maintain midline head posture
- + strong asymmetry affecting function
- + unable to weight bear on upper extremities in prone
- + 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 when on tummy



4 months



Gross Motor** Important mos.	Fine Motor and Vision	Communication (4-6 months)	Feeding Supported sitter (4-6 months)
• Developing symmetry • Landau begins • Postural control/balance improves as there is greater balance between flexors and extensors (co-contraction) • Head righting in side lying- will see this during supine <> side lying transitions <u>Prone:</u> Cervical extension to 90 • prone on forearms • hip flat on mat • Weight shifting A/P and maybe laterally • may begin reaching → collapsing → accidental rolling <u>Supine:</u> Round pelvis off mat – strengthening of abdominals. • head midline – symmetry • reaching with extended arm <u>Standing:</u> Bouncing	• Scratches at mat and clothes- sensory exploring/learning • Swipes and attempts to grasp within visual field	• moves eyes in direction of sounds • Responds to changes in tone of your voice • Notices toys that make sounds • Pays attention to music • Babbling sounds more speech-like with many different sounds: <i>p, b, and m</i> • Chuckles and laughs • Vocalizes excitement and displeasure • Makes gurgling sounds when left alone and when play with you	• Shows interest in food • Opens mouth as spoon approaches • Moves pureed food from front to back • Begins to eat smooth purees

5 months



Gross Motor	Fine Motor & Vision	Communication	Feeding (birth through 5 months)
• Increased head righting • Beginning of equilibrium response in supine • Increased Landau response - more mature extension against gravity <u>Prone:</u> on forearms with WS** <u>Supine:</u> Hands to knees - facilitating more pelvis off mat • Good reaching supine due to strong scapular muscles from weight bearing in prone • Roll supine to side <u>Sitting:</u> Good head control in sitting • straight thoracic, rounded lower • not sitting along, propping <u>Pull to sit:</u> no head lack, assisting with abs and arms			By this age – the following diminishes: • Suck/swallow reflex • Tongue thrust reflex • Rooting reflex • Gag reflex



ATYPICAL – 4-5 months

- + unable to reach in prone
- + unable to extend arms in supine
- + unable to achieve midline
- + kyphotic sitting posture
- + unable to elevate pelvis off mat in supine
- + no symmetrical movement
- + poor core and shoulder strength
- + Doesn't coo or make sounds
- + Has trouble moving one or both eyes in all directions



6 months



Gross Motor	Fine Motor and Vision	Communication	Feeding
**after 5-6 months looking a sequence/quality of movement as there are variations for typical development • Good head control • Equilibrium, reactions: prone = developed; supine = beginning <u>Prone:</u> Good weight shift--> reaching and allow for pushing up onto extended arms • Flexion of weight bearing leg is pre movement for quadruped/crawling • backwards <u>Pull to sit:</u> independently, may go to standing <u>Sitting:</u> briefly unsupported - high guard position • Active hip extension for stabilization • forward protective extension <u>Standing:</u> bounces with UE support • posture: hip ext, knee ext., ankle plantarflex.	• Palmar grasp • Transfers objects between hands	• Responds to sounds by making sounds • Strings vowels together • Responds to own name • Looks around at things nearby • Brings things to mouth	• Feeding more in upright position • Spoon feeding for thin, smooth puree • Finger feeding is introduced • Vertical munching



7 months



Gross Motor	Fine Motor and Vision	Communication (7-8 months)	Feeding: Crawler (7-8 months)
• Bring feet to mouth- strong abdominals • Rarely in supine • Equilibrium: supine developed; sitting developing Protective extension: forwards developed; sideways- developing <u>Prone:</u> pushes into quadruped with wide BOS and able to WS • pivot in prone • belly crawl <u>Sitting:</u> favorite position since they can explore, using LEs for function instead of posture/stability • Hands for play • increased A/P movement – precursor for dissociation <u>Standing:</u> get up at furniture and bounce, can't get down (visual, motor planning)	• radial palmar grasp • thumb begins to adduct	• Imitates sounds • Uses variety of sounds and syllable combinations • Look at familiar objects and people when named • Follows some routine commands when paired with gestures • Shows recognition of commonly used words • Simple gestures, e.g. shakes head "no"	• Holds and drinks from bottle • Eats thicker puree and mashed table foods • Enjoys chewy toys that can massage sore and swollen gums



ATYPICAL – 6-7 Months

- + inability to sit erect without support – poor co-contraction
- + no midline of UE
- + no propulsion laterally or forward in prone
- + poor dissociation
- + inability to posteriorly tilt pelvis for hands to thighs
- + Unable to tolerate purees
- + Doesn't make vowel sounds
- + Doesn't laugh or make squealing sounds
- + Has difficulty getting things to mouth
- + Doesn't respond to sounds around him



8 months

Gross Motor	Fine Motor and Vision	Communication (7-8 months)	Feeding (7-8 months)
• Developed protective extension sideways • Equilibrium: sitting developed, working on quadruped • Increase dissociation/rotational movement <u>Prone/Quad:</u> emerging weight shift in all planes • may pull to kneel at support surface <u>Sitting:</u> Dissociation is developing with quadruped <> sitting transition • Weight shift and movement in all planes in sitting • narrow BOS; uses side sitting • sidelying > sitting. <u>Standing:</u> pull to stand through kneel and fall to get down • need UE support but can use only 1	• Inferior scissor grasp thumb Adducted not opposed	• Imitates sounds • Uses variety of sounds and syllable combinations • Look at familiar objects and people when named • Follows some routine commands when paired with gestures • Shows recognition of commonly used words • Simple gestures, e.g. shakes head "no"	• Holds and drinks from bottle • Eats thicker puree and mashed table foods • Enjoys chewy toys that can massage sore and swollen gums



9 Months

Gross Motor	Fine Motor and Vision	Communication	Feeding
• Good trunk control which allows for more mature trunk rotation/dissociation during transitions. (half kneel, standing, creeping) • Balance strategies improving, assume tall kneel in free space <u>Sitting:</u> most functional position • Uses a variety of positions • Easily transitions to/from quad. <u>Standing:</u> • Improved strength/control in LES: standing > squatting with use of UEs • starting to walk: BUE • Pull to stand through kneeling/half kneel • Cruising with half body turned	• Radial digital grasp thumb beginning to oppose	• Understands "No" • Makes a lot of different sounds • Copies sounds and gestures of others • Plays peek-a-boo • Moves things from one hand to another	• Begin cup drinking • Eats lumpy, mashed food • Chewing includes rotary jaw action



ATYPICAL - 8-9 Months

- + lack of dissociation:
- + no creeping, bunny hopping
- + commando crawling
- + "W" sitting present
- + Doesn't babble
- + Doesn't play games involving back-and-forth play
- + Doesn't seem to recognize familiar people



10 months

Gross Motor	Fine Motor and Vision	Communication (10-12 months)	Feeding (10-12 months)
- May see regression to more stable/familiar postures as they refine fine motor/cognitive skills - Strong glutes/LES <u>Quadruped:</u> - Strong Core: trunk rotation with reciprocal creeping, <u>Sitting:</u> turning/pivoting - May twist to sit in small chair <u>Kneeling:</u> - hips extended in tall kneel, using half kneel to play and transition - Uses half kneel more frequently <u>Standing:</u> Improved WS, allowing ankle strategies to begin facilitating ambulating with 1-2 UE support	inferior Pincer grasp	- Meaningfully uses "mama; dada" - Imitates speech sounds - Responds to 'No' - Responds to simple directions - Pays attention to where you are looking and pointing - produces long strings of gibberish - says one or two words - beings using hand movements to communicate (e.g. reaches to be picked up)	- Finger feeds self - Eating an increasing variety of foods - Begins to use an open cup - Ready to try soft cooked vegetables, soft fruits and finger foods - Might be ready to start self feeding with utensils - Enjoys a greater variety of smells and tastes



ATYPICAL - 10 Months

- + Wbing on toes in standing
- + Inability to transition between sitting positions
- + poor weight bearing in standing, pulls to stand with arms only
- + Unable to develop fine motor skills due to under developed gross motor skills



11 months

Gross Motor	Fine Motor and Vision	Communication (10-12 months)	Feeding (10-12 months)
- Greater strength, balance and control allowing more exploration which assists with overall development - Transitions through all developmental positions and presents with equilibrium responses in all positions except standing - Developing protective extension backwards - sitting - Can stand alone and may start presenting with signs of an early walker (see next slide)	- Palmar supine grasp on writing utensils - increased control of intrinsic muscle	Meaningfully uses "mama; dada" - Imitates speech sounds - Responds to 'No' - Responds to simple directions - Pays attention to where you are looking and pointing - produces long strings of gibberish - says one or two words - beings using hand movements to communicate (e.g. reaches to be picked up)	- Finger feeds self - Eating an increasing variety of foods - Begins to use an open cup - Ready to try soft cooked vegetables, soft fruits and finger foods - Might be ready to start self feeding with utensils - Enjoys a greater variety of smells and tastes



Walking

- + Sequence: Cruising → walking
- + Stand alone momentarily
- + Able to weight shift and lift 1 LE
- + Cruises between furniture
- + Develops ability to rise to stand in free space
- + Squats/stands and recovers
- + May begin to take first independent steps
- + Characteristics of “Early Walker”
 - + Arms in “high guard”
 - + Trunk locked in extension in increase lordosis
 - + Wide BOS
 - + Hips/knees don’t fully extend
 - + “steppage foot”
 - + Fast cadence, short step/stride length
 - + Heel strike at initial contact, may initially walk on toes.



12 months



Gross Motor	Fine Motor and Vision	Communication	Feeding
- Typically walking around this age - Overall increase exploration facilitating progression of balance and coordination in transitions and standing positions - Overall same/similar to 11 months		- Responds to simple request - Uses gestures like shaking head for 'no' - Waves 'byebye' - Says 'mama/dada' and 'uh-oh!'	- Self-feeding - Grasp spoons with whole hand - Holds cup with 2 hands - Drinks with 4-5 consecutive swallows - With Pediatrician's approval – milk is typically introduced at 1 year old

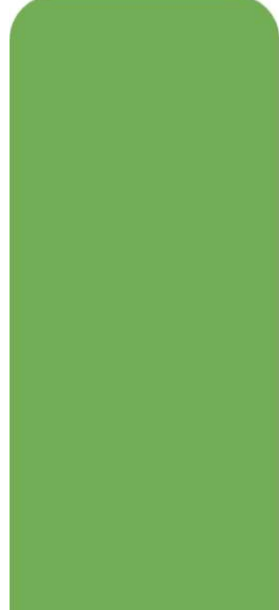


ATYPICAL – 11-12 Months

- + Inability to transition between sitting positions
- + Unable to achieve long sitting
- + mass grasp patterns
- + altered tone: increased stiffness or laxity
- + lack of standing
- + Doesn't say any single words
- + Doesn't point to things



15 months



Gross Motor	Fine Motor and Vision	Communication	Feeding
• Creeps upstairs • Good LE strength both concentric and eccentric • Squat and play • Walks without support throws ball forward	• Finger to palm translation • Scribble	• May use 5-10 words • Imitates simple words and actions • Combines sounds and gestures • Consistently follows simple directions • Shows interest in pictures • Can identify 1-2 body parts when named • Understands 50 words	• Increases variety of coarsely chopped table foods • Holds and drinks from a cup



18 months

Gross Motor	Fine Motor and Vision	Communication (18-24 months)	Feeding (18-24 months)
• Ceiling age for walking • Creep down stairs • Improving comfort with increased time on SLS • walking up stairs 1 UE support • "run" improving coordination: • start and stop walking smoothly	• Can operate mechanical toy	• Says 2-word sentences • Points to show what they want • Knows ordinary objects • Points to 1 body part • Follows 1-step commands	• Increases variety of coarsely chopped table foods • Holds and drinks from a cup • Primarily self-feeds



20 Months

Gross Motor	Fine Motor and Vision	Communication (18-24 months)	Feeding (18-24 months)
- Continuing to improve balance, strength and coordination around maintaining SLS: - Walking down stairs, with 1 hand held kicking ball		- Says 2-word sentences - Points to show what they want - Knows ordinary objects - Points to 1 body part - Follows 1-step commands	- Swallows with lip closure - Self-feeds predominantly - Chewing broad range of food - Up-down tongue movement



2 years



Gross Motor	Fine Motor and Vision	Communication	Feeding
- Continuing to advance in balance and coordination in sagittal plane: - increased cadence - jump in place - walk up/down stairs non reciprocal - Begin running but difficulty changing directions (multiplane)	- Palm to finger translation and rotation - digital pronate grasp on writing utensils snip and cut across paper with scissors	- Plays simple make-believe games - Build towers of 4 or more blocks - Follows 2-step directions - Names items in a picture books - Says sentences with 2 to 4 words - Repeats words overheard in conversation	- Swallowing with lip closure - Self-feeding predominantly - Chewing broad range of food



ATYPICAL 15 months- 2 Years



- + Doesn't use 2-word phrases (for example, “drink milk”)
- + Doesn't know what to do with common things, like a brush, phone, fork, spoon
- + Doesn't copy actions and words
- + Doesn't follow simple instructions
- + Doesn't walk steadily



30 months



Gross Motor	Fine Motor and Vision	Communication	Feeding
- improved control and balance with decreased BOS - walk on tip toes - mount tricycle, - jump from bottom step - walk up stairs without UE support/HR	- achieve shift ability - build a tower of 9+ cubes - string beads based on a simple pattern - cut on straight line with scissors		



ATYPICAL – 30 months

- + not walking or falling while walking
- + in-toing or excessive external rotation
- + avoids arts/craft
- + BOS: wider or narrower
- + Doesn't speak in sentences
- + Doesn't understand commands
- + Doesn't make eye contact



3 Years

Gross Motor	Fine Motor and Vision	Communication	Feeding
- Controlled dissociation - reciprocal negotiation of ascending stairs without UE support hops on 1 foot SLS for 3 seconds - Anticipate catching a ball - Improved coordination of gross motor task - jump forward over obstacle - run - good fluidity - Easily propels riding toy		- Say his or her name & age - Speak 250 to 500 words - Answer simple questions - Speak in sentences of five to six words - Tell stories - Name familiar colors - Pretend and fantasize more creatively - Follow three-part commands - Remember parts of a story - Recognize and identify common objects and pictures	- Circulatory jaw rotation - Chewing with lips closed - One-handed cup holding and open cup drinking with no spilling - Using fingers to fill spoon - Eating wide range of solid food - Total self-feeding, using fork



ATYPICAL – 3 YEARS

- + Drools or has very unclear speech
- + Can't work simple toys (such as peg boards, simple puzzles, turning handle)
- + Doesn't speak in sentences
- + Doesn't understand simple instructions
- + Doesn't play pretend or make-believe
- + Doesn't want to play with other children or with toys
- + Doesn't make eye contact



4 Years

Gross Motor	Fine Motor and Vision	Communication	Feeding
- Improved balance, coordination, speed and ability to control SLS - Galloping - Ride bike with training wheels	- static tripod grasp on writing utensils - draw all pre writing shapes - cut simple geometric figures	- Speak in complete sentences - Can say first and last name - Names some colors and numbers - Starts to understand time - Understands the idea of counting - Plays board or card games - Draws a person with 2-4 body parts	Total self-feeders



ATYPICAL – 4 years

- + Doesn't attempt skills requiring mod-max balance challenges
- + Difficulty catching and kicking ball
- + Ambiguous hand preference
- + Shows no interest in interactive games or make-believe
- + Ignores other children or doesn't respond to people outside the family
- + Resists dressing, sleeping, and using the toilet
- + Can't retell a favorite story, doesn't follow 3-part commands



5 years

Gross Motor	Fine Motor and Vision	Communication	Feeding
- Forward Roll - jump rope - Skip - Ride bike	- Establish hand dominance - color within lines - write first name - copy letters/numbers - build multi-directional structure dynamic tripod	- Speaks very clearly - Tells as simple story using full sentences - Says name and address - Counts 10 or more things - Can draw a person with at least 6 body parts - Knows about things used everyday	Total self-feeders



ATYPICAL – 5 Years

- + difficulty mounting ride on toy
- + can't imitate motor task
- + BOS wider
- + cant catch ball
- + fist grip



6 years



Gross Motor	Fine Motor and Vision	Communication	Feeding
- Balance beam - bounce tennis ball with 1 hand - Ride bike - Roller skates - Walk in all directions	- complex rotational and in hand manipulation - write letters without model - cut complex figures		

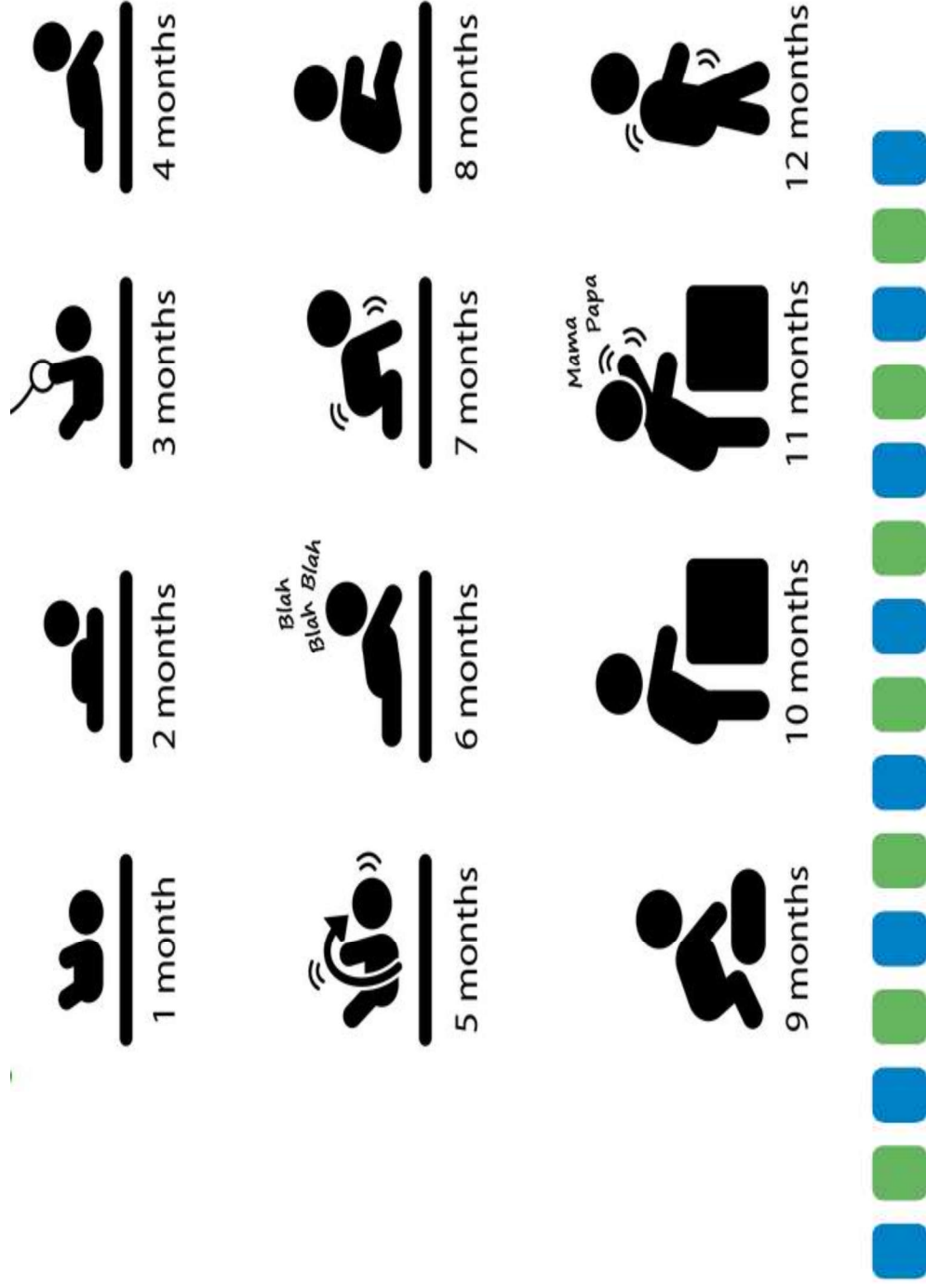


ATYPICAL - 6 years and above

- + Doesn't show a wide range of emotions
- + Is easily distracted, has trouble focusing on one activity for more than 5 minutes
- + Doesn't respond to people, or responds only superficially
- + Doesn't play a variety of games and activities
- + Can't give first and last name
- + Doesn't talk about daily activities or experiences
- + Can't brush teeth, wash and dry hands, or get undressed without help



Any questions?



Reference

+ Pathways.org

