

# Physical Therapy Developmental Milestones

## Witwer Children's Therapy

### Gross Motor Skill Development in the First Two Years of Life:

*It is important to keep in mind that all children develop differently based upon their experiences and that all milestones have an appropriate "window" of time that the milestone is expected to occur. Each life experience helps to build gross motor, fine motor, and speech production milestones. Knowing what to expect can help you prepare and facilitate their development. Not every baby will roll at 3 months, sit independently at 6 months, crawl at 9 months, and walk at 12 months. What is important is the time frame developmentally when they begin to achieve these goals and looking at other skills that may be missing that would help them to develop independent mobility.*

#### AGE 0-3 Months:

- Vision is best from 8-12 inches away
- Tracks objects with their eyes in all play positions
- Head control develops as they lift their head from the ground
- Maintains their head in midline in all play positions by approximately 3 months of age
- Bears weight through extended legs when supported at their trunk/pelvis
- Baby will enjoy time on play mats
  - Tummy time develops cervical extensors, shoulder stabilization, and eventually hand and upper extremity strength
  - Supine (Back) play activates abdominal muscles while strengthening upper extremity and lower extremity muscles as they reach and kick for objects
- Limit extended periods of time spent in positional equipment (swings, bouncers, car seats in home, restaurant and store environments) because it may increase incidence of plagiocephaly (head flattening)
- TOYS: Direct face to face play, mirrors, high contrast colors (black & white), rattles, and play mats

#### AGE 3-6 Months:

- Increased frequency and improved motor planning with kicking and reaching for toys
- Rolls both from back to belly and belly to back and over both right and left sides
- Bring hands together in midline
- PRONE (BELLY):
  - Able to prop up on their elbows
  - Able to push through their hands to raise their chest from the ground
  - Able to push through hands to trigger rolling from stomach to back
  - Reaches for toys with improved motor control
- SUPINE (BACK):
  - Able to bring hands to knees
  - Able to bring feet to mouth
  - Able to roll from back to belly with increased activation of their abdominals
  - Maintains head control and chin tuck when pulled to sitting from their back
- SITTING:
  - Sits with support from parent or while supported with supervision using Bumbo or Boppy pillow
  - Prop sits with their own arms supporting weight, with supervision
  - By the 6<sup>th</sup> month they should be able to sit unsupported for up to 1 minute at a time, with supervision
- TOYS: Musical toys, blocks and stacking toys, in/out toys, rattles, clapping hands, and balls

(Continued on back)

### AGE 6-9 Months:

- PRONE:
  - Able to swim (raise arms/legs into the air)
  - Able to pivot turning head and body 180 to 360 degrees
  - Able to belly crawl with alternating movement of arms and legs
  - Able to transition up to hands and knees and rock back in forth
- SITTING:
  - Able to sit independently
  - Able to transition in/out of sitting independently
- TOYS: Books, balls, blocks, stacking toys, and bubbles

### AGE 10-12 Months:

- Increased independence and mobility, plays in a variety of play positions throughout the day
- Able to crawl forward on hands and knees for longer distances with reciprocal movement of arms and legs
- Begins to pull up to their knees and eventually all the way to standing
- Cruise at mat surface (unable to take hands away from support surface)
- Walks with hand held assistance from parents or with push toys
- Maintains balance in free space
- Able to take independent steps, likely holding arms in a high guard position
- Transitions from the floor up to standing in free space
- Able to squat down to the ground to retrieve objects without losing their balance
- TOYS: push toys, puzzles, books, shape sorters, cars, and bubbles

### AGE 12 -24 Months:

- Balance continues to improve with independent play and exploration of their environment
- Able to walk independently by *18 months of age*
- Plays in a sustained squat position
- Able to creep up/down stairs and eventually able to walk up/down stairs holding railing
- Throw balls (overhand, underhand)
- Kicks balls with both left and right foot
- Climbs onto chairs and other furniture
- Runs
- Emerging jumping skills

### **Tips to Progress Gross Motor Skill Development:**

- Consistently encouraging tummy time in early development builds endurance to continued prone play
- Make play fun to encourage sustained attention and engagement
- Use active play – babies want their parent’s attention more than they want any toy, allow them to play with the toy but be present and express interest in their play, acknowledge what they are doing well
- Use repetitive play with a variety of toys (stacking, in/out games, clapping) to build strength and motor plans when learning new skills; repeating tasks allows babies to become more automatic and refine their movement patterns
- Always demonstrate skills and make them engaging and fun (jumping, crawling)
- Consider toy placement when encouraging babies to track objects, crawl, pull to stand, and walk
- Encourage play in as many situations and environments as possible (different rooms in home, outdoor environments, structured play areas, bathtub) so they can transfer new skills to new environments
- Introduce lots of sensory information during play with a wide variety of sounds, shapes, textures, colors, etc.

### **Concerns Warranting Attention and Potential Referral to Physical Therapy:**

- Gaze preference to one side
- Flattening of head
- Head tilt to one side
- Not kicking feet or bearing weight through legs (0-3 months)
- Hitch crawling or scooting on bottom
- Decreased use of one side of the body
- W sitting
- Atypical movement patterns
- Toe walking

### **References:**

*Tummy Time Tools Link:* [http://www.choa.org/Menus/Documents/Wellness/final\\_tummy\\_time.pdf](http://www.choa.org/Menus/Documents/Wellness/final_tummy_time.pdf)

*Center for Pediatric Therapy. Gross Motor Developmental Milestones. [Internet] 2014. Available:* <http://www.spokanecpt.com/105/gross-motor-developmental-milestones>

*Sanford Health. Gross Motor Milestones. [Internet] 2014. Available:* <http://bismarck.sanfordhealth.org/rehab/GrossMotorMilestones.pdf>