

Developmental Milestones: Comparison of Various Ages

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Milestones of various ages provide a predictable pattern in infants and children concerning the development of their skills in each age group. Understanding of the normal child development helps clinicians to identify any symptom of delayed child development. Early identification of the developmental delays can prevent future complications, and the child can be timely referred for therapeutic services. The aim is to promote healthy development. Developmental milestones have been established in physical, social, verbal and cognitive domains.



First Year of Life Versus One Year

	The first year of life	One year old
Physical	<ul style="list-style-type: none"> • Takes toys to the mouth. <ul style="list-style-type: none"> • Sits without falling. • Cruises along with the furniture. • Can transfer a toy from one hand to the other. <ul style="list-style-type: none"> • Clapping of the hands is a new activity. <ul style="list-style-type: none"> • Bangs two things together. • Plays with his feet using both hands. • Takes small steps to get the desired toys. • Starts picking up small objects with the help of thumbs and index fingers, i.e., finger-thumb opposition. • Begins the alternate leg and arm movements like crawling. 	<ul style="list-style-type: none"> • Can easily walk independently. <ul style="list-style-type: none"> • Knows how to climb stairs. • Knows how to kick a ball. • Can throw a ball using both hands. • When shown pictures, points at familiar objects and people. <ul style="list-style-type: none"> • Can stack up to three blocks.

Social	<ul style="list-style-type: none"> Parents are the central figure. The child cries when one of the parents leaves. <ul style="list-style-type: none"> Trust issues The child gets anxious in the presence of strangers. <ul style="list-style-type: none"> Plays alone and tries to explore things. Plays peek-a-boo type of games. 	<ul style="list-style-type: none"> Separation anxiety. Gets nervous with strangers. Depends on parental figures. <ul style="list-style-type: none"> Onlooker behavior Has a sense of "favorite people". <ul style="list-style-type: none"> Proto-imperative pointing
Verbal & cognitive	<ul style="list-style-type: none"> Develops a sense of reasoning. Assimilation and accommodation; more aware of the outside world <ul style="list-style-type: none"> Laughs aloud. Responds to simple directions like "pick up the toy". Pays attention to where you are looking and pointing. <ul style="list-style-type: none"> Understands and responds to "no." Learns to wave bye-bye. Tries to imitate sounds and gestures. Makes sounds like mamama, bababa. 	<ul style="list-style-type: none"> Sense of object permanence. <ul style="list-style-type: none"> Can use up to 10 words. Can understand almost 50 words. Can identify some body parts like nose and lips. <ul style="list-style-type: none"> Can follow simple directions. There are variations in the timing of language development among children.

Comparison: 2 Year vs. 3 Year



Second Year of Life Versus Third Year

	The second year of life	The third year of life
Physical	<ul style="list-style-type: none"> High physical activity Can walk in a backward direction. Learns how to turn the doorknob and unscrew a jar lid. Can scribble using crayons. Can stack up to 6 blocks. Learns to stand on tiptoes. Can throw a ball with more accuracy. 	<ul style="list-style-type: none"> Can ride a tricycle. Can stack up to 9 blocks. Climbs stairs using alternate feet. Learns to control bowel and bladder. Can draw recognizable shapes. Knows how to catch a ball with hands. Can use scissors to cut paper. Knows how to unbutton a shirt.
Social	<ul style="list-style-type: none"> Usually selfish and self-centered Copies what others do. Often shows aggressive behavior. Recognizes self in the mirror. <ul style="list-style-type: none"> Favorite word is "NO." Parallel playing 	<ul style="list-style-type: none"> Gender identity Gender-specific play Understands the concept of taking turns. Knows his full name.
Verbal & cognitive	<ul style="list-style-type: none"> Recognizes different objects. Learns to use symbols. Use of security blanket. <ul style="list-style-type: none"> Egocentrism. Concentrate use of objects. <ul style="list-style-type: none"> Starts using pronouns. Use of telegraphic sentences. <ul style="list-style-type: none"> Can use up to 250 words. Can identify body parts like nose and lips. 	<ul style="list-style-type: none"> Learns to speak complete sentences. <ul style="list-style-type: none"> Can use up to 900 words. Understands video games. Understood by strangers. When shown pictures, recognizes objects and people. Can answer questions like, "tell me what this is?" / "which book is bigger?"

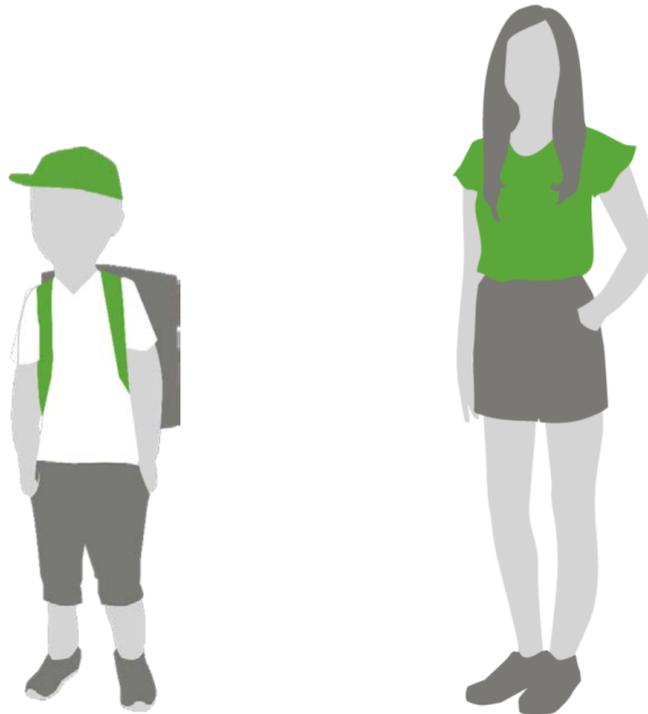
Comparison: 4 Year vs. 5 Year



Fourth Year of Life Versus Fifth Year

	Fourth year of life	Fifth year of life
Physical	<ul style="list-style-type: none"> • Use of alternate feet while going downstairs <ul style="list-style-type: none"> • Jumps on one foot. • Brushes teeth. • Grooms self. • Can count on fingers. 	<ul style="list-style-type: none"> • Has a complete sphincter control. • Brain weighs 75% that of an adult. • Can draw a recognizable body with head, trunk, and limbs. <ul style="list-style-type: none"> • Easily dresses and undresses. • Can catch a ball with two hands.
Social	<ul style="list-style-type: none"> • Imitation in language, speech, and actions of adults <ul style="list-style-type: none"> • Playing doctor, curiosity about genitals • Nightmares • Fear of monsters • Believes having friends that are imaginary. 	<ul style="list-style-type: none"> • Matching attitudes and behaviors to peers are important. <ul style="list-style-type: none"> • Has romantic feeling for others. • Presence of Oedipal phase
Verbal & cognitive	<ul style="list-style-type: none"> • Points to the objects. • Counts up to three objects. • Repeats four digits. • Familiar with different colors <ul style="list-style-type: none"> • Storytelling • Use of prepositions • Use of plurals like dogs, cats • Can use compound sentences. 	<ul style="list-style-type: none"> • Counts to up 10 objects easily. • Asks questions like the name of things. <ul style="list-style-type: none"> • Use of elusive words

Comparison: Age 6–12 vs. > Age > 12 (Adolescence)



Six-to-Twelve Years of Life Versus Older Than Twelve Years

	Six-to-twelve years of life	Older than twelve years
Physical	<ul style="list-style-type: none"> Boys have more muscle mass than girls. Eruption of permanent teeth <ul style="list-style-type: none"> Refined motor skills Can ride a bicycle. Writing improves. Knows grammar. Good at athletics. Better coordination 	<ul style="list-style-type: none"> The adolescent growth spurt in girls is earlier than boys. <ul style="list-style-type: none"> Onset of sexual maturity. Development of primary and secondary sexual characteristics.
Social	<ul style="list-style-type: none"> “Rules of the games” are important. <ul style="list-style-type: none"> Plays organized sports. Becoming a team member is major concern for many children. <ul style="list-style-type: none"> Gender segregation Sexual feelings are not apparent. 	<ul style="list-style-type: none"> Identity is taken seriously. The emergence of the concept of orthodoxy and conformity Organized sport diminished for many children at this age <ul style="list-style-type: none"> Cross-gender friendships
Verbal & cognitive	<ul style="list-style-type: none"> Tries to make and find abstract in objects. Law of conservation achieved (concrete operational stage) <ul style="list-style-type: none"> Developed sense of logic Seriation, hierarchical classification ability <ul style="list-style-type: none"> Do not consider hypotheticals. Mnemonic stages Personal sense of right and wrong; developed conscience. <ul style="list-style-type: none"> Shift from egocentrism to social speech. Require full information; incomplete sentences are declined. Vocabulary expands; knows up to 50,000 words by age 12. 	<ul style="list-style-type: none"> Object abstraction <ul style="list-style-type: none"> Systemic problem-solving strategies <ul style="list-style-type: none"> Easy handling of hypotheticals. Can deal with time; past, present, and future. <ul style="list-style-type: none"> Adopts personal speech patterns. Relationships are based on communication.

Tanner Stages

I	No hair <10 yrs				
II	Small amount, downy 10–11 yrs				
III	Hair coarse and curly 11–13 yrs				
IV	Adult-like but not on the thigh 13–14 yrs				
V	Extends to the medial thigh >14 yrs				

Tanner Stages

The Tanner stages is a scale that measures physical development in children, adolescents, and adults.

Female Tanner stages

Tanner 1:

- Height increases at a basal rate of 5 to 6 centimeters per year
- Breast development; papilla elevation
- Appearance of pubic hair
- Presence of villus hair
- Absence of coarse, pigmented hair

Tanner 2:

- Height increases at a rate of 7-8 centimeters per year.
- Breast buds are palpable, and areolae are enlarged.
- Average age is 10.9.
- Appearance of pubic hair.
- Presence of coarse, pigmented hair specifically on labia.
- Median age is 11.2 years.

Tanner 3:

- Height increases at a peak rate of 8 centimeters per year.
- There is elevation of breast contour; areolae enlarge more.
- Average age is 11.9 years.
- Pubic hair
- Coarse and curly hair appears over the mons pubis
- Axillary hairs appear
- [Acne vulgaris](#)

Tanner 4:

- Height increases at a rate of 7 centimeters per year.
- Areolae form secondary mound on the breast.

- Average age is 12.9 years.
- Adult quality hair in pubic area
- Pubic hair does not spread to the junction of medial thigh with perineum.

Tanner 5:

- No further increase in height after 16 years of age.
- Adult breast contours are present.
- Areola recesses to general contour of the breast.
- Adult distribution of hair
- Pubic hair spreads to the medial thigh.
- Pubic hairs do not extend up to linea alba.

Male Tanner stages

Tanner 1:

- Height increases at a rate of 5-6 centimeters per year.
- [Testes](#) are smaller than 4 ml.
- No coarse and pigmented pubic hair
- No growth of penis

Tanner 2:

- Height increases at a rate of 5-6 centimeters per year.
- Size of testes in long axis is 2.5 to 3.2 cm.
- Average age is 11.5 years.
- Minimal coarse, pigmented pubic hair is found at the base of the penis at the age of 12.
- There is an earliest increase in length and width of the penis.

Tanner 3:

- Height increases at a higher rate of 7-8 centimeters per year.
- The size of the testes is 3.6 cm longitudinally at an average age of 14.
- Coarse and curly pubic hair seen over the pubis at the age of 13 (average).
- Increased length and width of penis
- Increased muscle mass
- Voice breaks
- [Gynecomastia](#) may occur.

Tanner 4:

- Height increases at a peak rate of 10 centimeters per year.
- Pubic hair of adult quality.
- Pubic hair does not spread to the junction of medial thigh with perineum.
- Average age is 13.9 years.
- Continued growth of penis in length and width
- Length of testes is 4.1 to 4.5 cm.
- Axillary hair is present at 14 years of age.
- Voice changes (age 14.1 years).
- Appearance of teenage acne

Tanner 5:

- No increase in height after 17 years of age

- Adult pubic hair distribution (15.3 years)
- Pubic hair spreads to the medial thigh.
- Pubic hair does not spread to linea alba.
- Mature genital size by 16.5 years of age.
- Length of testes is greater than 4.5 cm.
- The appearance of secondary sexual characteristics like facial hair, male physique, the disappearance of gynecomastia

Stages of Development According to Erik Erikson

Erik Erikson has proposed eight stages of development that each person must go through until maturity. This concept is more based on our understanding of psychology and social skills. The following table summarizes the stages of development according to Erik Erikson:

Age	Developmental Task
Birth to 1 year	Infants usually go into a struggle to whether they should trust or mistrust others. Babies are dependent on others for their basic needs such as nourishment and warmth. The normal developmental milestone by the age of 1 year according to this classification is to trust the caregiver.
1 to 3 years	The purpose of the different developmental milestones that the child gain by the age of 3 years is to realize autonomy. Therefore, the child will learn to be either self-sufficient in most of the daily activities or the child might develop shame and doubt according to Erik Erikson.
3 to 6 years	The developmental milestones gained by the age of 6 years make the child more independent from his or her parents. Accordingly, the child might show initiative or feel guilty if he or she does not follow the parents' rules.
7 to 11 years	This is a very important developmental milestone according to Erik Erikson. By this age, the child can be either productive and competent or can develop an inferiority complex. If the later happens, the child might eventually become unable to be a productive member of the society. This age was called middle childhood per Erik Erikson's classification.
Adolescence	Most of the milestones gained in adolescence serve to answer the big question "Who am I?". Therefore, adolescents will establish their sexual, ethnic, and career identities. If an adolescent fails in this developmental milestone, he or she will fail to see their future role.
Young Adulthood	Young adults need to be either intimate with others and develop meaningful relationships or become isolated. Therefore, young adults will usually seek companionship and love.
Adulthood	Middle-aged adults are expected to be productive and to perform meaningful work. They are also expected to raise a family. Failing in this milestone would result in stagnation and being inactive.
Mature Adult	Older adults are expected to make sense of their lives and to see life as meaningful. If they fail in doing so, they will go into despair. Therefore, the normal final developmental milestone according to Erik Erikson is to achieve integrity.

Therefore, Erik Erikson's point of view on developmental milestones is that they are tools we acquire to resolve certain conflicts that are specific to each milestone. Failing to resolve such a conflict would result in abnormal development. Erik Erikson's classification covers all the life-span of the person and not only childhood and adolescence.

References

[Sexual Maturity Rating \(Tanner Staging\) in Adolescents](#) via nih.gov

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[The Development of Children Ages 6 to 14.](#)

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Notes