

GROWTH AND DEVELOPMENT



-BY
DR. RAZIA NASREEN
ASSOCIATE PROFESSOR
DEPARTMENT OF HOME
SCIENCE

GROWTH

It is the process of physical maturation resulting an increase in size of the body and various organs. It occurs by multiplication of cells and an increase in intracellular substance. It is quantitative changes of body.

DEVELOPMENT

Physical development involves developing control over the body, particularly muscles and physical coordination. The peak of physical development happens in childhood and is therefore a crucial time for neurological brain development and body coordination to encourage specific activities such as grasping, writing, crawling, and walking.

PRINCIPLE OF GROWTH AND DEVELOPMENT





• **CEPHALOCAUDAL DIRECTION**

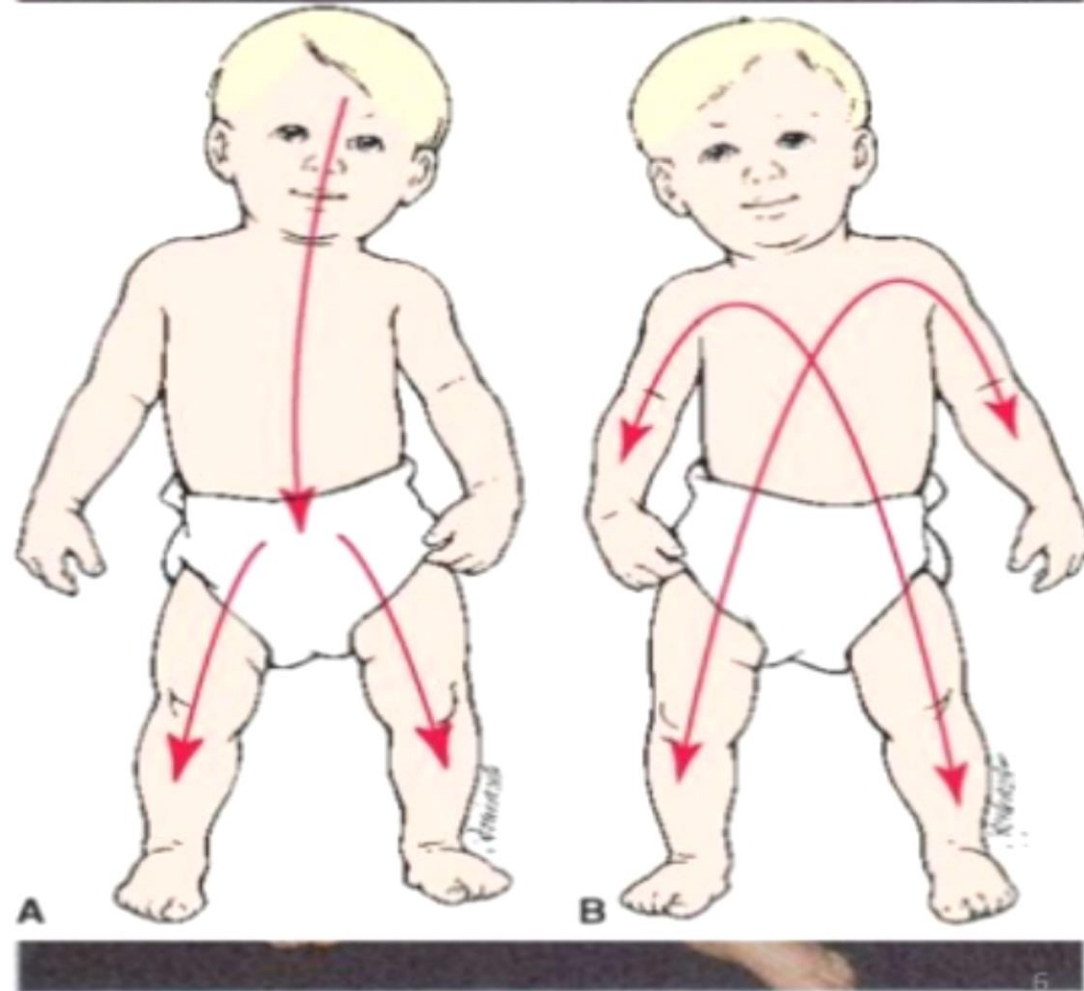
• **PROXIMODISTAL DIRECTION**

• **GENERAL TO SPECIFIC**



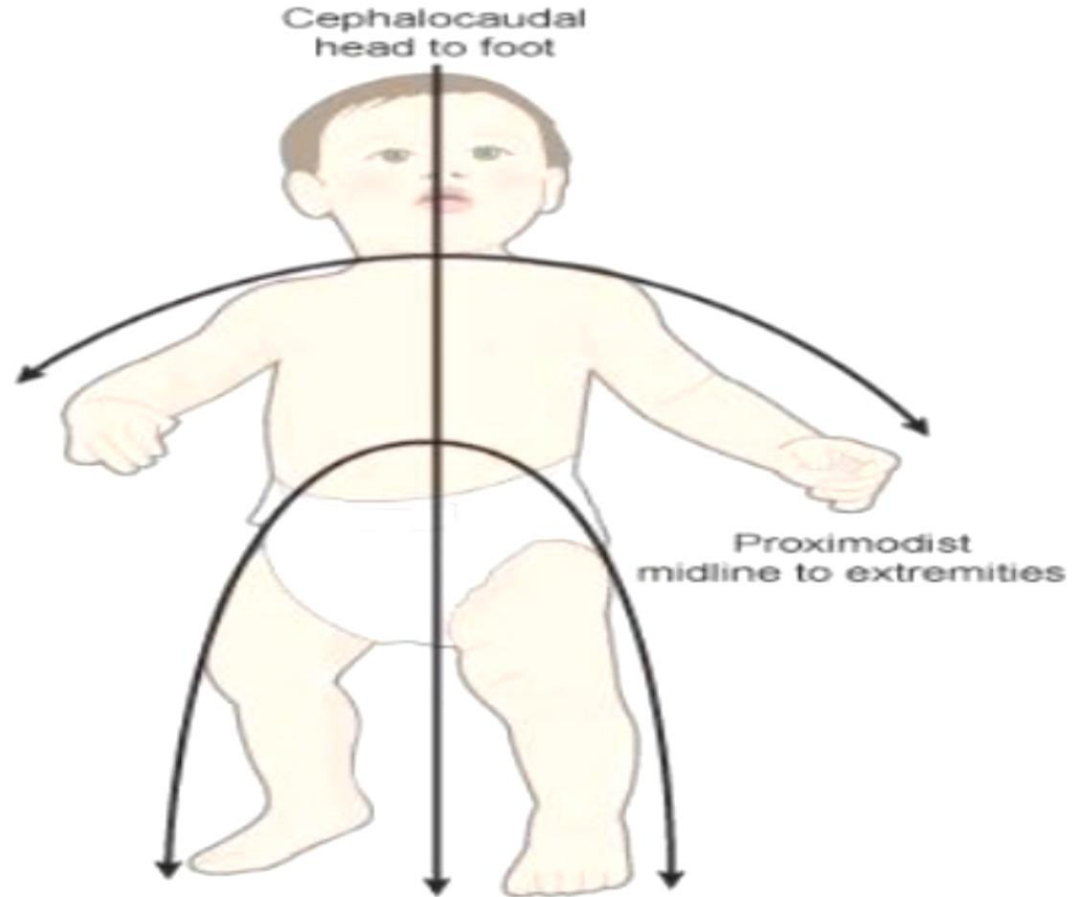
Cephalocaudal direction

- The process of **cephalocaudal** direction from **head** down to **tail**. This means that improvement in structure and function come first in the head region, then in the trunk, and last in the leg region.



Proximodistal direction

The process in proximodistal from center or midline to periphery direction. development proceeds from near to far - outward from central axis of the body toward the extremities



General to Specific

- Children use their cognitive and language skills to reason and solve problems.
- Children at first are able hold the big things by using both arms, In the next part able to hold things in a single hand, then only able to pick small objects like peas, cereals etc.
- Children when able to hold pencil, first starts draw circles then squares then only letters after that the words.

- **DEVELOPMENT PROCEEDS FROM GENERAL TO SPECIFIC RESPONSES**



FACTOR INFLUENCING GROWTH AND DEVELOPMENT





- **GENETIC FACTORS**

- **PRENATAL FACTORS**

- **POSTNATAL FACTORS**



Genetic factors

- Genetic predisposition is the importance factors which influence the growth and development of children.
- Sex
- Race and Nationality

Prenatal factors

- Intrauterine environment is an important predominant factor of growth and development. Various conditions influence the fetal growth in utero.

Cont...

- Maternal malnutrition
- Maternal infection
- Maternal substance abuse
- Maternal illness
- Hormones
- Miscellaneous

TYPES OF PRENATAL FACTORS

Postnatal factors

- Growth potential
- Nutrition
- Childhood illness
- Physical environment
- Psychological environment
- Cultural influence
- Socio economic status
- Climate and season
- Play and exercise
- Birth order of the child
- Intelligence
- Hormonal influence

GROWTH AND DEVELOPMENT AGE PERIOD

- Infancy
 - Neonate
 - Birth to 1 month
 - Infancy
 - 1 month to 1 year



- Early Childhood

- Toddler

- 1-3 years

- Preschool

- 3-6 years



- Middle Childhood

- School age
- 6 to 12 years

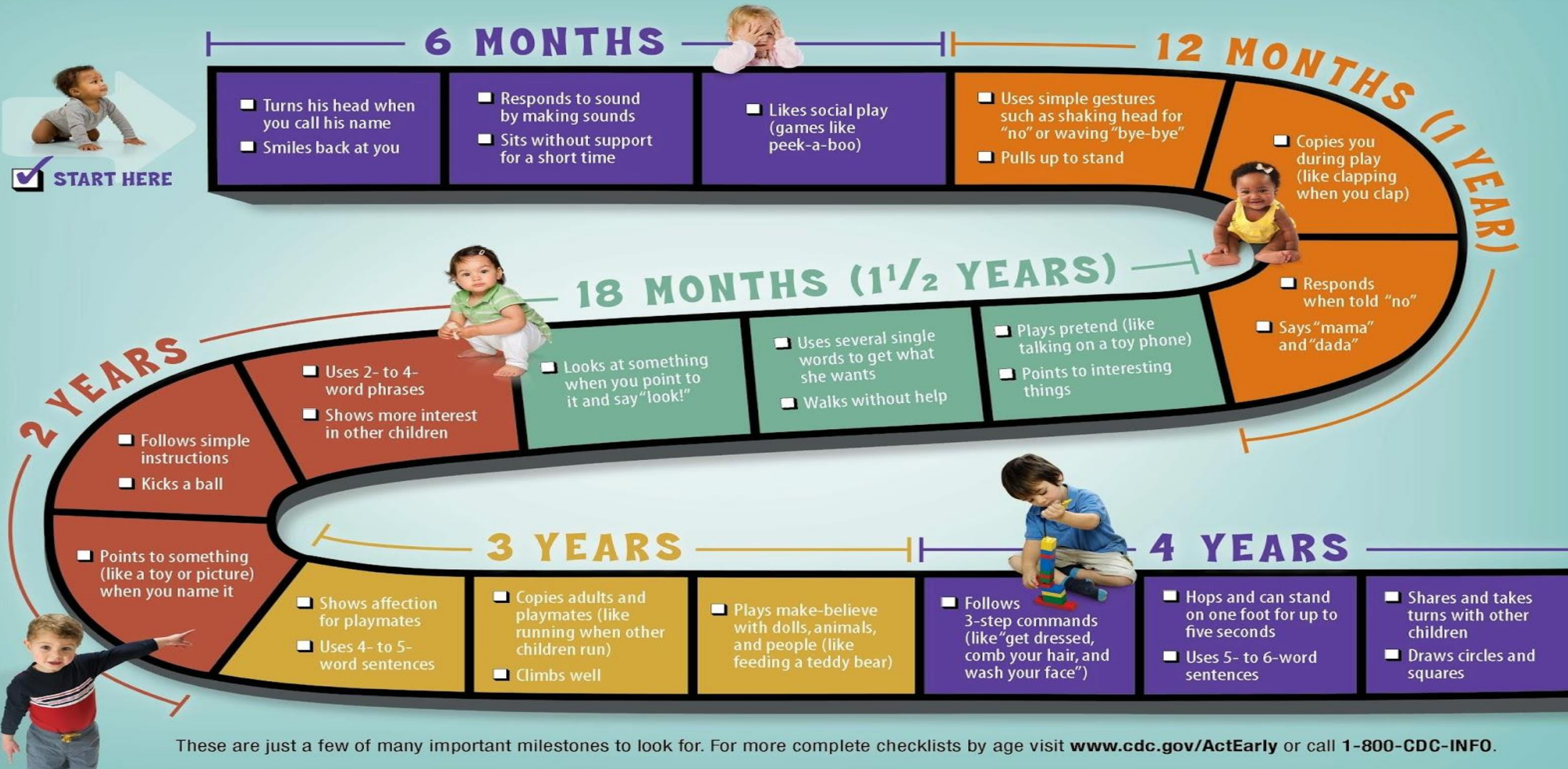
- Late Childhood

- Adolescent
- 13 years to approximately 18 years



Your Child's Early Development is a Journey

Check off the milestones your child has reached and share your child's progress with the doctor at every visit.



These are just a few of many important milestones to look for. For more complete checklists by age visit www.cdc.gov/ActEarly or call 1-800-CDC-INFO.

Development Through the Lifespan

Approx. Ages	Infants/Toddlers 0-3	Young Children 4-7	Older Children 8-12	Early Teens 13-14	Middle Teens 15-17	Late Teens 18-19	Young Adults 20-34	Midlife Adults 35-64	Older Adults 65 and up
Faith Development	Beginning to trust. Comes to know self separate from parents. Can say, "No!" Senses love of parents and of those in Christian community.	Imitates religious behavior of adults. Begins to ask religious questions. Expresses wonder, joy, thanksgiving, and praise. Begins to use faith language.	Begins to identify with "my" church. Learns stories of the faith. Understands God in concrete terms. Engages in acts of service and discipleship.	Moving toward a more abstract concept of God. Asks deeper questions about God, faith, and the church. May see God as distant.	May see God as a personal companion. Beginning to have an owned faith. Influenced by faith of significant others.	May begin to question faith in the process of developing an owned faith. Looks for the relevance of faith.	May leave church and/or return. Many seeking spiritual experience. Some want answers, others want to ask questions and search.	Wants to understand the meaning of life and how faith relates to this. Taking responsibility for spiritual growth.	Wants arena to grow in faith and to accept life story. Need purpose and to feel life is worth living. May want to share life faith story with others.
Physical Development	Fast physical growth and changes. Grasps. Sits. Crawls. Stands. Walks. Hand-eye coordination improves.	Talks more clearly. Runs. Skips. Jumps. Throws. Catches. Climbs. Childhood diseases.	Physical growth slows. Permanent teeth. Finer coordination, muscular growth—but wide differences. Girls may enter puberty.	Rapid growth, mature at different rates— girls earlier than boys, need for movement, self-consciousness.	Learning to live in an adult body. Greater coordination.	Physical growth slows down, care of body.	Measures time since birth. Learning preferences established. Reaches physical peak.	Begins to measure time until death. Lessening of some physical abilities such as sight and hearing.	Beginning of physical decline. May need adaptations in physical environment. Active longer.
Brain Development	Rapid acquisition of brain connections stimulated through experience.	Brain connections continue to be stimulated through experiences. Pruning of synapses begins.	Second wave of production of gray matter, the thinking part of the brain. Critical period for language acquisition ends.	Prefrontal cortex, (formation of judgments) is not yet mature. Lymbic system, (formation of raw emotions) is in overdrive.	Continued growth in the neocortex and cerebellum Increased ability to think abstractly.	Continued growth of neocortex and pruning of synapses.	Myelination and synaptic pruning continues. Brain does not reach full maturity until at least mid-20s.	New neurons continue to form. Increased use of both hemispheres of brain contributes to postformal thinking.	In healthy brain new neurons continue to form and learning continues. For some there may be a deterioration of memory.
Mental and Intellectual Development	Actions first based on reflexes. Begins to separate self from others. Searches, imitates, learns from concrete activities and objects.	Episodic thinking. Begins to differentiate real from imaginary. Learns best from concrete activities. Recalls, invents, begins to converse.	Concrete thinkers. Stories give meaning and coherence to life. Develops ability to memorize. Learn through projects, games, songs, and stories.	Beginning to think abstractly. Can ask complex questions beyond ability to understand. Short attention span.	Able to think abstractly. Begins to think in possibilities. Understands the meaning of symbols. Beginning to consider consequences.	Wants to apply insights into daily living. Aware of the world outside their experiences.	Learns best when not under stress. Time is valuable. Prefers problem-centered learning. Want to apply learning to life. Learning preferences well established.	Self-directed learning. Wants input from knowledgeable people, resources, and groups. Learns by making connections with previous knowledge and experience.	Builds on life experiences. Uses visual images and mental pictures. Self-paced and problem-centered learning. Learning environment needs enhancement.
Interpersonal Relationships	Relationships with adults primary. Dependent on parenting persons. Self-centered. Often shy with strangers. Parallel play. Develops relational skills through group experience.	Relationships with adults primary. Parallel play moves to relational play. Develops relational skills through group experience. Increasing empathy. Sees "big" people as good.	Increasing empathy. Cliques of same gender. Begins to develop loyalty. Peers becoming more important but still wants to please significant adults. Belonging to group is important.	Seeks peer relationships and is influenced by peer perceptions, first "love." Self-consciousness. Needs to know significant adults. Same gender friends.	Strong sense of identity with peers, sense of family with peers, needs to know significant adults, opposite gender friends.	Establishing personal identity, moving toward capacity for intimate relationships. Mentors are important. Can express who "I" am.	Developing long-term personal commitments. Seeking small groups of friends to substitute for extended family which may not be in close proximity.	Some relationships strengthening, others deteriorating over time. Need for feelings of significance in relationship to others. Many caring for parents and children.	Loss of significant relationships due to death. Still establishing new relationships. Need for relationships that recognize life and viability even as people age.

THE END

THE END

