Pattern Of Growth And Development

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Pattern of growth and development

Growth: it is increase in body mass .

- Or: change in body size weight resulting from increase in number or size of cell , it is quantitative and measurement in term by centimeter or kilograms.

Development: a gradual change in advancement / function from lower to higher stage ,it is qualitative .

- Or: it is progress toward maturity.
- Or : it is assessed in term of acquisition.

Domains of development

* **physical domains:** body size ,weight ,thickness ,body preparation, appearance , brain development, precipitins capacities , physical health.

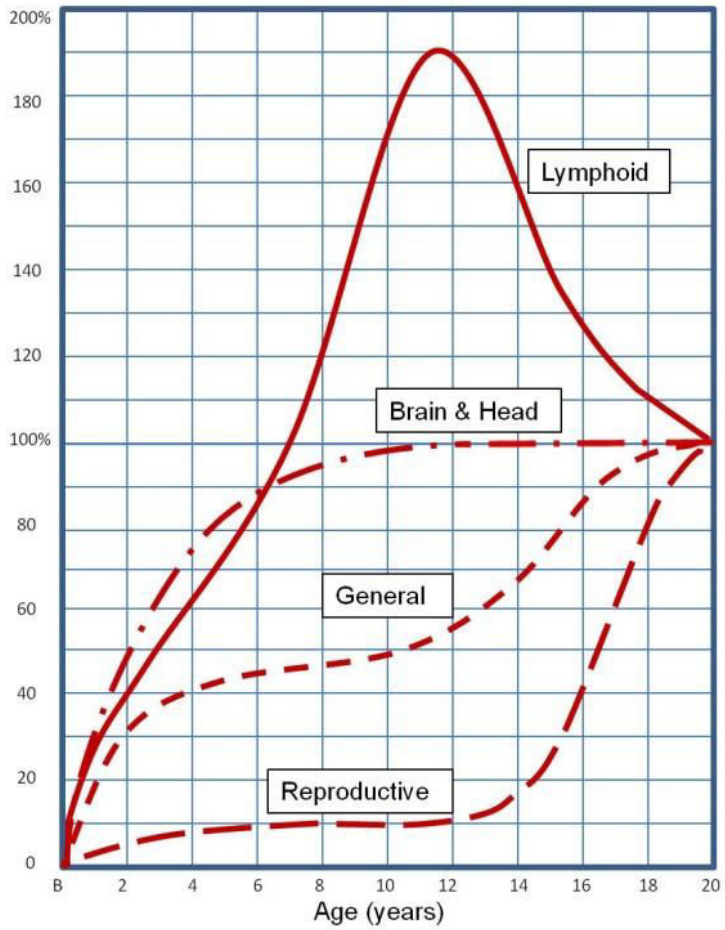
* **cognitive domains:** thought process and intellectual abilities , including attention , memory , problem solving ,

creating, academic and every day knowledge , language.

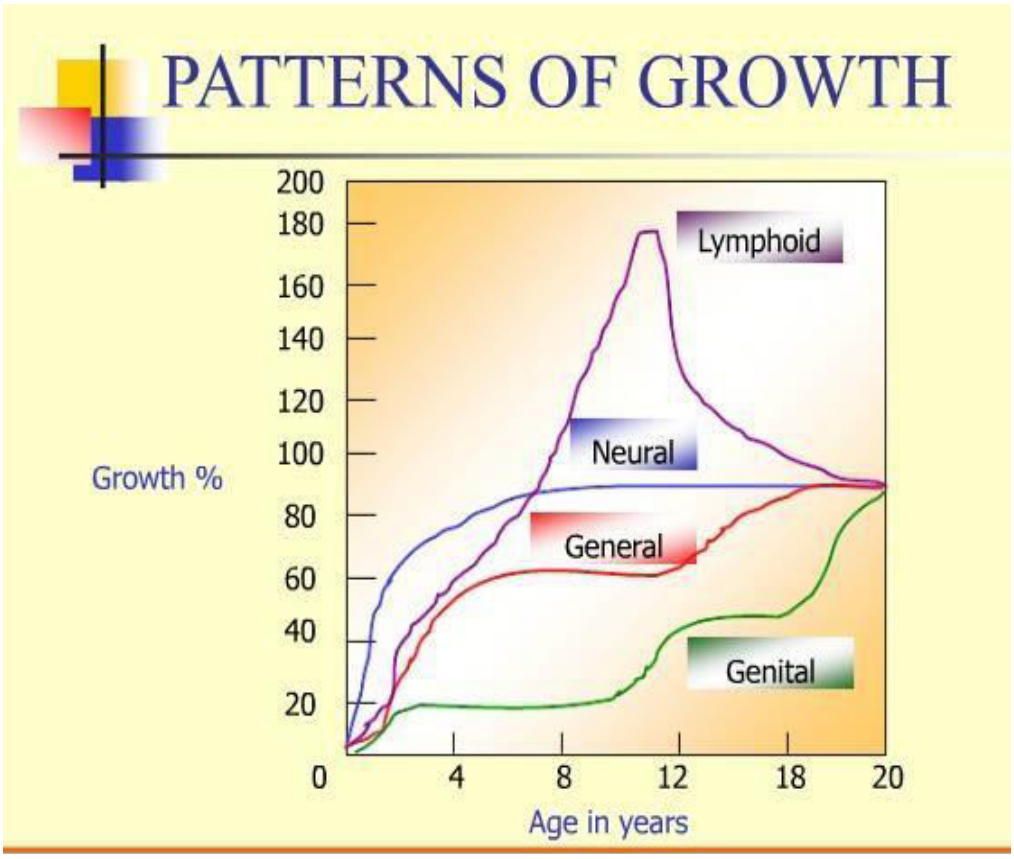
* **social / emotional domains:** self-knowledge (self

esteem, ethic identity , sexual identity) moral resoning, understanding and expression of emotions , self regulation , understanding other inter personal skill and friendship

Curve of pattern of growth and development



Curve of pattern of growth and development



Body Weight

Weight:

- Average birth weight 3 kg → lose 10% body weight → regain BW by 10 days → gain at 25-30 gm/day for 1st 3 mths → 400 gm/month till end of 1st year
- Roughly, BW doubles by 5 mths
- trebles by 1 year
- 4 times by 2 yrs
- 6 times at 5 yrs
- 10 times at 10 yrs

- Or, gains 2 kg/yr between 3- 7 yrs
- 3 kg/yr after that till pubertal spurt

Height:

- **50 cm at birth**
- **60 cm at 3 mths**
- **75 cm at 1 yr**
- **100 cm at 4 yrs**
- **gain 5 cm/yr till 10 yrs**

Velocity Of Growth:

- Serial measurements of growth parameters over a period of time
- One time measurement does not indicate the rate of growth
- An abnormal percentile may only present once the factors retarding growth are profound or persist for a long time
- Plotting growth over a period of time provides a good epidemiologic tool for early detection of malnutrition, infections & growth disorders eg: Road to Health Charts

Eruption Of Teeth:

Primary Teeth

- Lower central incisors 5-8 months
- Upper central incisors – a month later
- Lateral incisors – within next 3 months
- 1st Molars – 12-15 months
- Canine - 18-21 months
- 2nd Molars – 21 – 24 months

Permanent teeth:

- 1st molar – 6 year
- Central & lateral incisors – 6-8 years
- Canines & premolars –9-12 years
- 2nd molar - 12 years
- 3rd molar – 18 years or later

Bone Age:

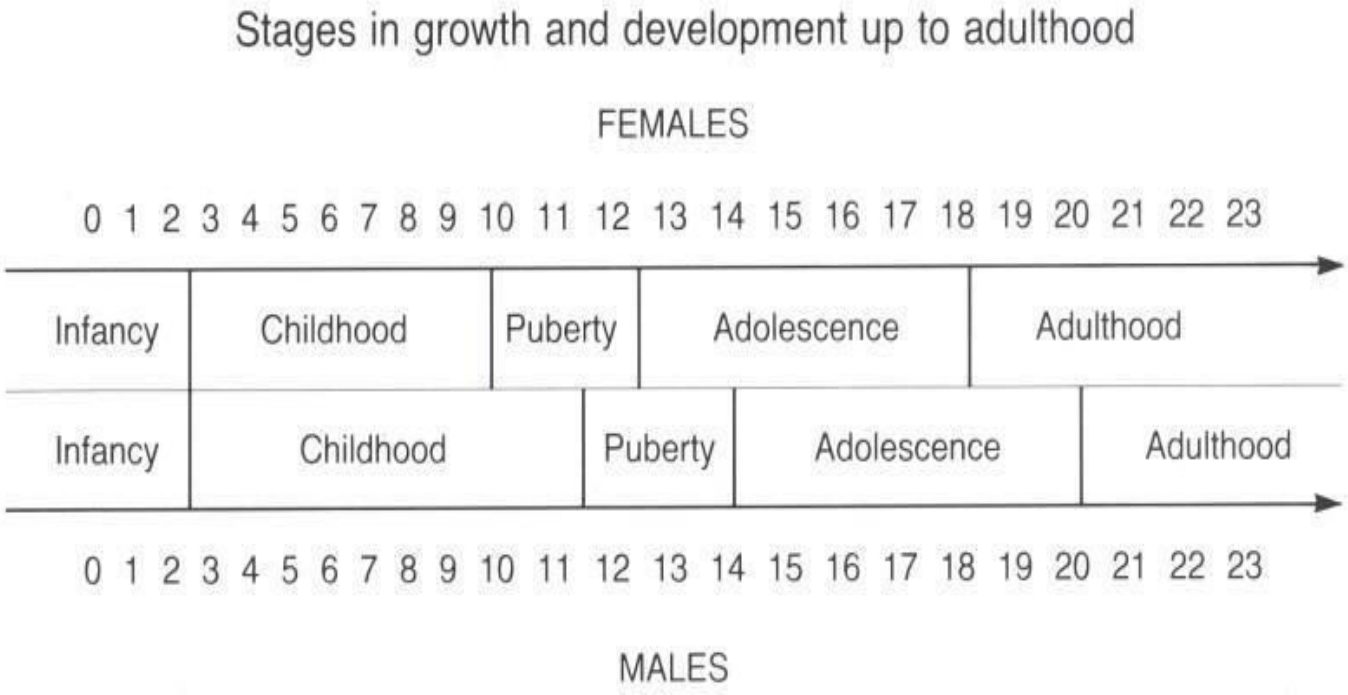
- An indicator of physiological development
- Distinct from chronological age
- More advanced in girls - by 1 yr in early childhood; 2 yrs in mid childhood
- Assessed by number, shape & size of ossification centers and density size & shape of ends of bones

- Which bones to Xray?
- Newborn – Xray of foot & knee
- Infant 3-9 months– shoulder
- 1-13 years– wrist & hands
- 12-14 years– elbow & hip

Stages of Growth and Development

- 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

Stages of growth and development:



Behavioral Development:

- As age advances, child acquires better coordination of motor activity and reacts to environment willfully
- Development is a continuous process and different levels of development (milestones) are achieved at an anticipated age (+/- few months)
- Early primitive reflexes are lost
- **4 areas of development:**
  - Gross motor
  - Fine motor (adaptive)
  - Social
  - Language

Gross Motor: Involves control of child over his body.

Tested in:

Ventral Suspension: Baby held in prone position and lifted off the bed. Newborn – head flops down

- 4-12 weeks– brings head to plane of body and then above plane of body

Supine:

- Child placed supine and gently pulled up by the arms
- Newborn – head lag
- By 16-20 weeks– head in plane of body or ahead with back straight

Prone:

- Newborn – can turn head to 1 side
- 1 month– lifts chin momentarily
- 3 month– lifts head and upper chest
- 6 month–lifts head & chest
- 5-8 months– rolls over, first back to side and front
- 8 months– crawls

Sitting:

- 5 month– sits with support
- 8 month– sits steadily with back straight, without support
- 10 month– pulls from supine to sitting position

Standing:

- 4 month-Bears weight on legs
- 9 month– early stepping movements, pulls to standing with help of furniture
- 10 month– cruising
- 13 –15 months– walks unsupported
- 15 month– walks sideways/backwards

Climbing stairs –

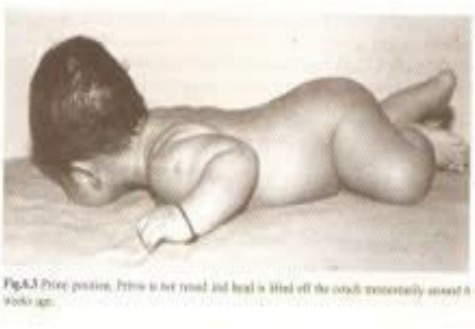
- 2 year– climbs stairs – 2 feet per step
- 3 year– climbs up stairs – one foot per step
- 4 year– climbs down one foot per step

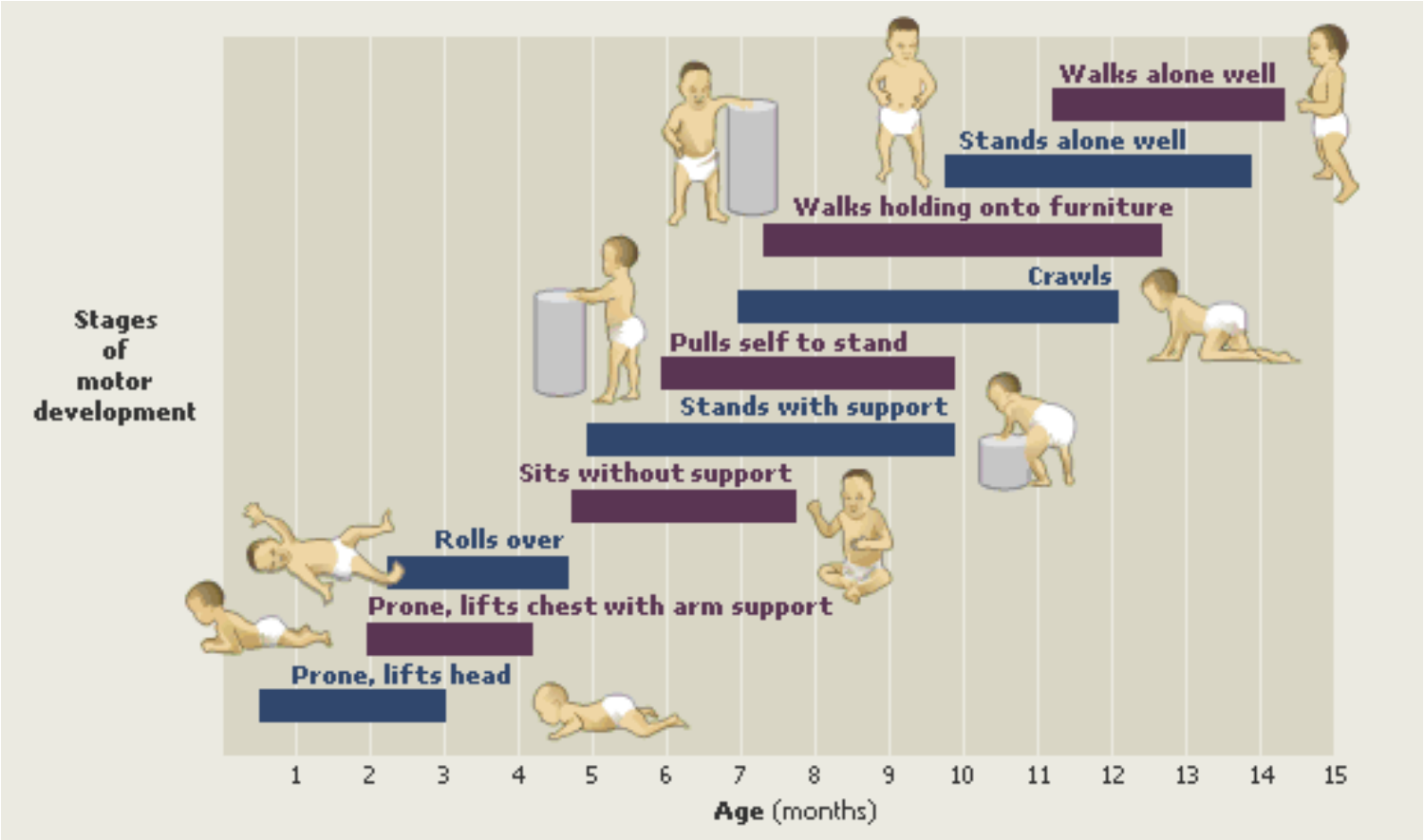
Stage	Age	Characteristics
Infant	Birth to 1 year	Period of rapid growth and change; attachments to family members and other caregivers are formed; trust develops.
Toddler	1 to 3 years	Motor ability, coordination, sensory skills developing; basic feelings, emotions, a sense of self, and being independent become important.
Preschooler	3 to 6 years	Continued physiological, psychological, and cognitive growth; better able to care for selves, interested in playing with other children; beginning to develop a concept of who they are.
School age	6 to 12 years	Interested in achievement; ability to read, write, and complete academic work advances; understanding of the world broadens.
Adolescent	12 to 19 years, or later	Transition period between childhood and adulthood; physiological maturation occurs, formal operational thought begins; preparation for becoming an adult takes place.

Key Gross motor milestones:

- 3 month– neck holding
- 5 month– sitting with support
- 8 month– sitting without support
- 9 month–standing with support
- 10 months – cruising
- 12 month– standing without support
- 14 month– walking without support
- 18 month– running
- 24 month– walking upstairs

Clinical Assessment





Fine Motor Or Adaptive Milestones

- **Fine Motor Or Adaptive Milestones:** Includes eye coordination, hand eye coordination, hand mouth coordination and manipulation with hands
- Tested with red ring, pen torch, red cubes (2.5 cm), pellet, cup with handle, spoon, book with thick pages, red pencil/crayon, paper, wooden blocks, doll, mirror

Personal & Social Development:

- 1 month - regards face of mother/caretaker
- 2 month - social smile
- 3 month - recognizes mother/caretaker
- 6 month - enjoys mirror
- 7-8 months - separation anxiety
- 9 month - waves bye-bye

Language Development:

- 1 month- turns head towards sound
- 3-5 months- vowel sounds, gurgles
- 6 month- monosyllables
- 9 month- bisyllables
- 10 month- understands spoken speech
- 12 month- speaks 2 words with meaning
- 18 month- 20 words
- 24 month- joins 2-3 words in a short sentence
- 3 years- 250 words

Bowel & Bladder Control:

- Early months - gastrocolic reflex → defecates asfter each feed
- 7 month- no relation to feeds
- Toilet trainable by 18mths - 2 years
- **Developmental Delay**
- 3 Step diagnosis
  - Clinical
  - Screening tools
  - Psychometric scales

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Theories related to human growth and development

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Growth and development

- Growth is the physical increase in the body's size and appearance caused by increasing numbers of new cells.
- Growth: it is increase in body mass .
- Change in body size weight , it is quantitative and measurement in term by centimeter or kilograms.
- Development is the progressive change in the child toward maturity
- **Development:** a gradual change in advancement / function from lower to higher stage , it is qualitative.
- it is progress toward maturity.
- Maturation its completed growth, and development.

Factors Related to Growth and Development

- Sex of the person
- Gland function or dysfunction
- A lack of proper nutrition
- Genes and hormonal factors
- Rate of intellectual development
- Health status (sickly)
- Level of motivation or drive
- Presence or absence of parents' attitudes: encouragement, interest or not
- Environmental stimuli
- Drugs or alcohol

Theories Of Child Development

❑ Freud theory (psychosexual development)

- Proposed by the famous psychoanalyst Sigmund Freud, the theory of psychosexual development describes how personality develops during childhood.

- Freud believed that personality develops through a series of childhood stages in which the pleasure-seeking energies of the id become focused on certain erogenous areas

- Freud described three levels of consciousness: the id, which controls physical need and instincts of the body; the ego, the conscious self, which controls the pleasure principle of the id by delaying the instincts until an appropriate time; and the superego, the conscience or parental value system.

- The superego is the part of personality that holds all of the internalized morals and standards that we acquire from our parents, family and society

Psychosexual Stages in Freud's Theory

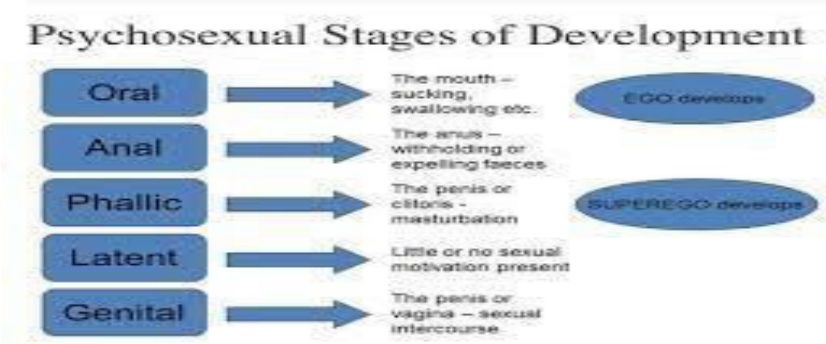
1- Oral stage: the infant's primary source of interaction occurs through the mouth, so the rooting and sucking reflex is especially important. The mouth is vital for eating, and the infant derives pleasure from oral stimulation through gratifying activities such as tasting and sucking.

2- Anal stage: Freud believed that the primary focus of the libido was on controlling bladder and bowel movements. The major conflict at this stage is toilet training--the child has to learn to control his or her bodily needs. Developing this control leads to a sense of accomplishment and independence.

3- phallic stage: the primary focus of the libido is on the genitals. At this age, children also begin to discover the differences between males and females. Freud also believed that boys begin to view their fathers as a rival for the mother's affections.

4- Latent period: The stage begins around the time that children enter into school and become more concerned with peer relationships, hobbies and other interests.

5-The Genital Stage: final stage of psychosexual development, the individual develops a strong sexual interest in the opposite sex. This stage begins during puberty but last throughout the rest of a person's life.



❑ Erikson theory (psychosocial development)

- Erik Erikson's theory of psychosocial development is believed that personality develops in a series of stages.

- Erikson's theory describes the impact of social experience across the whole life-span. One of the main elements of Erikson's psychosocial stage theory is the development of ego identity.

Stages of Erikson theory (psychosocial development)

1- Trust Versus Mistrust (Ages 0–1 Year) Infancy (Feeding)

Children develop a sense of trust when caregivers provide reliability, care, and affection. A lack of this will lead to mistrust.

2- Autonomy Versus Doubt and Shame (Ages 1–3 Years) Early Childhood (Toilet Training)

Children need to develop a sense of personal control over physical skills and a sense of independence. Success leads to feelings of autonomy, failure results in feelings of shame and doubt.

3- Initiative Versus Guilt (Ages 3–6 Years) Preschool (Exploration)

Children need to begin asserting control and power over the environment. Success in this stage leads to a sense of purpose. Children who try to exert too much power experience disapproval, resulting in a sense of guilt.

4- industry Versus Inferiority (Ages 6–12 Years) School Age (School)

Children need to cope with new social and academic demands. Success leads to a sense of competence, while failure results in feelings of inferiority.

5- Identity Versus Role Confusion (Ages 12–18 Years) Adolescence (Social Relationships)

Teens need to develop a sense of self and personal identity. Success leads to an ability to stay true to yourself, while failure leads to role confusion and a weak sense of self

6- Intimacy Versus Isolation (Early Adulthood) Young Adulthood19 to 40 years (Relationships)

Young adults need to form intimate, loving relationships with other people. Success leads to strong relationships, while failure results in loneliness and isolation.

7- Generativity Versus Self-Absorption (Young and Middle Adulthood) Middle Adulthood40 to 65 years (Work and Parenthood)

Adults need to create or nurture things that will outlast them, often by having children or creating a positive change that benefits other people. Success leads to feelings of usefulness and accomplishment, while failure results in shallow involvement in the world.

8- Ego Integrity Versus Despair (Old Age) Maturity(65 to death) (Reflection on Life)

Older adults need to look back on life and feel a sense of fulfillment. Success at this stage leads to feelings of wisdom, while failure results in regret, bitterness, and despair.

❑ Piaget theory (cognitive development)

- Piaget brought new insight into cognitive development or intellectual development—how a child learns and develops that quality called intelligence.

- Its a comprehensive theory about the nature and development of human intelligence. cognitive development was a progressive reorganization of mental processes as a result of biological maturation and environmental experience.

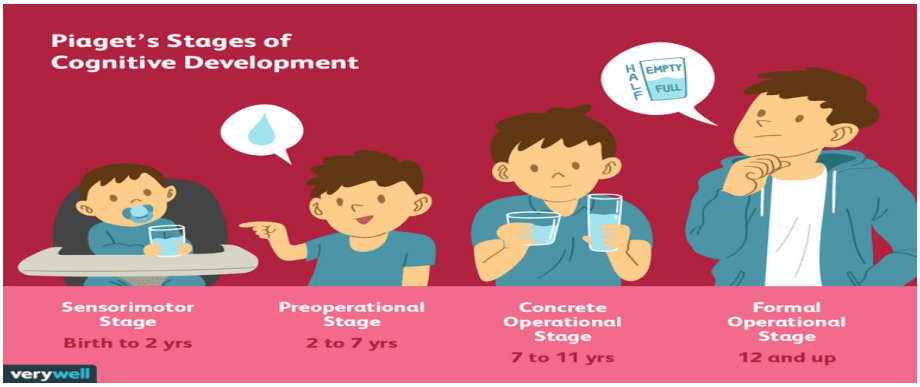
Stages of Piaget theory (cognitive development)

1- Sensorimotor Phase (Ages 0–2 Years)

During this stage, infants and toddlers acquire knowledge through sensory experiences and manipulating objects.

2- Preoperational Phase (Ages 2–7 Years)

At this stage, kids learn through pretend play but still struggle with logic and taking the point of view of other people.

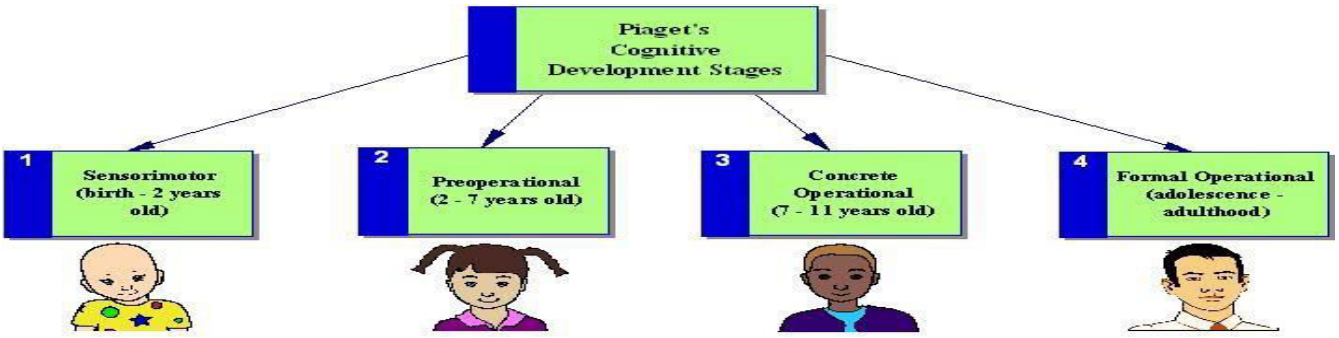


3- Concrete Operations (Ages 7–11 Years)

Kids at this point of development begin to think more logically, but their thinking can also be very rigid. They tend to struggle with abstract and hypothetical concepts.

4- Formal Operations (Ages 12–15 Years)

The final stage of Piaget's theory involves an increase in logic, the ability to use deductive reasoning, and an understanding of abstract ideas.



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Family, Social and Class through Lifespan

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Learning objectives

- To know the family role, types, structure and influences
- To know the types of parent style
- To know the impact of media and social class on family
- To know the type of abuse and neglect
- To understand the meaning of death and dying

Family, Social and Class through Lifespan

In the systems view, families, parents and children influence each other and parent child relations are influenced by other individuals and institutions. The family's resources and educational achievements affect how children perceive themselves

Family role

- Values "A child first learns about right and wrong in the family.
- Consistency and Security
- Coping Skills
- "Parents model how to handle emotions when they react to their own feelings
- Relationships
- Play an enormously important role in kids' social and emotional development
- Nutrition
- Sleep
- Attachment
- A positive relationship with an adult that enables a child to feel safe and valued creates a secure attachment.
- Learning Opportunities

- Economic well being
- Emotional support
- Suitable family lifestyles

Types of families

- Nuclear - This family type consists of two parents and children.
- Extended - A family extends the nuclear family to include grandparents and other relatives.
- Single parent - This family type consists of one parent raising one or more children on his own.

Family Structure

- One-Child Families: all positive dimensions including intelligence, achievement, maturity, Leadership, health, and satisfaction with friends and family
- Birth Order: Older children have an advantage over their siblings—they Have exclusive parental attention

Impact of absence of biological parent

The absence of one parent means that children lose a role model, a source of parental help and emotional sup port, and a supervisor

Impact of absent biological

- School achievement
- Self-concept
- They are more likely to have lower earnings in young adulthood and are more likely to be poor.
- They are more likely to marry early and to have children early
- If they marry, they are more likely to divorce.

- They are more likely to commit delinquent acts and to engage in drug and alcohol use.

Parental Styles

- Authoritarian parenting (Dictatorial)
- High parental control with little warmth
- Authoritative parenting (Democratic)
- A fair degree of parental control with being warm and responsive to children
- Permissive parenting
- Warmth and caring but little parental control

Impact of Parental Styles

- Children have lower grades in school, lower self esteem, and are less skilled socially
- Children have higher grades and are responsible, self reliant, and friendly
- Children have lower grades and are often impulsive and easily frustrated

Social and Class

Parents' social class has a greater impact on how well their children perform at school than "good parenting" techniques such as reading bedtime stories, researchers have shown.

Media and Technology

Media technologies (TV, video, games, Internet, music, mobile phones) have brought about a substantial change in the experience of childhood in our society. Media has less impact than peers

Positive Impact of Media

- Youth were more aware
- Increase their understanding of the world around them
- Video games involving information, academic content and problem-solving and for children who have learning problems
- Increase information technology about health

Negative Impact of Media

- Media violence increases risk of aggressive youth behavior
- Sexual behaviors
- Use of both alcohol and tobacco
- Obesity

Family Role Toward Child and Media

- Know what children are watching
- Watch programs with children
- Do not put TV in a child's room
- Encourage parents to select appropriate programs for youth
- Limit media time
- Be good role models
- Emphasize alternative activities
- Urge parents to avoid TV for children under age of 2
- Not use TV in waiting rooms
- Provides information about the influence of TV violence on children

Child abuse and Neglect

Child abuse or maltreatment constitutes all forms of physical and/or emotional ill-treatment, sexual abuse, and neglect types of child maltreatment

- Emotional Abuse
- Neglect
- Physical
- Educational
- Medical
- Lack of supervision
- Physical Abuse
- Sexual Abuse

Risk Factors for Child Abuse

- Community/societal
- High crime rate
- Lack of or few social services
- High poverty rate
- High unemployment rate

Parent-related

- Personal history of physical or sexual abuse as a child
- Teenage parents
- Single parent
- Emotional immaturity
- Poor coping skills
- Low self-esteem
- Personal history of substance abuse
- Known history of child abuse
- Lack of social support
- Domestic violence
- Lack of parenting skills
- Lack of preparation for the extreme stress of having a new infant
- History of depression or other mental health problems
- Multiple young children
- Unwanted pregnancy

Child-related

- Prematurity
- Low birth weight
- Handicap
- Chronic diseases
- Mental illnesses

Impact of Abuse

Health consequences of child abuse

- Physical
  - Abdominal and thoracic injuries
  - External injuries
  - Fractures and disability
  - ocular and auditory damage
- Sexual
  - STD
  - Unwanted pregnancy
- Psychological
  - Depression and anxiety
  - Eating and sleeping disorders
  - Hyperactivity
  - Poor school performance
  - Post traumatic stress disorder

Deathand Dying

- **Death:** is defined as the cessation of all vital functions of the body including the heart beat, brain activity (including the brain stem), and breathing.
- **Dying:** General a gradual systemic shutdown. The end of life and the transition to death
- **Grief:** is the emotion people feel when they experience a loss Death mean :
- The final stage of growth .Experienced by everyone .The young ignore its existence. The old begin to think of their own

Stages of Death

Grief Stage	Terminally Ill Patient Response	Impending Retiree Response
Denial	This can't be happening to me!	Surely I am not that old!
Anger	Why is this happening to me?	What a stupid policy-mandatory retirement at 60!
Bargaining	I promise I'll be a better person if...	Maybe I can get an extension!
Depression	I don't care anymore.	Why should I try to do a good job anymore?
Acceptance	I'm ready for whatever comes.	I can enjoy a new life in retirement!

Effects of Death

- Emotional distress
- Difficulty with social functioning
- Overall psychological well-being
- Reactivity to good events
- Future worries and concerns
- Alcohol and drug abuse
- Suicidal thoughts
- Higher risk for health problems mentioned and death
- Depression

Concept of Death

- Death still seen as reversible
- Before age 5, children see death as temporary, like sleeping
- By age 5 children have begun to accept death as universal and final.
- Adolescents‘ views of death are also unrealistic & often highly romantic
- These adults are more aware and accepting of death but also have a lot of fears
- Older adults makes them less anxious about dying than at any other time of Life

Themes for a ‘Good’ Death

- Home
- Comfort
- Sense of completion (tasks accomplished)
- Saying goodbye
- Life-review

Language Development

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Objectives

- To know the definition of language andspeech
- To know the relationship and difference between language and speech
- To know the components of language andspeech
- To know the type oflanguage
- To understand the factors that effect onlanguage
- To know the tips helpinlanguage development

Language

- As broad concept…language is a system that relates sounds or gestures to meaning,it refer to express thoughts and concepts components of language are the following
- **Phonology** refers to the sounds of a language
- **Semantics** –What does a word mean
- **Morphology** –How to make a new word.
- **Syntax** –How do we put words together to convey meaning
- **Pragmatics** –What word combinations do we use in certain social situations.

Facts about language Development

- Children must learn to hear the differences in speech sounds and how to produce them; they must learn the meaning of words and rules for combining them into sentences and they must learn effective ways to talk with others
- Parents and adults help infants master

Speech

Speech: The verbal means of communicating.

Components of speech

- **Articulation** – How speech sounds are made
- **Voice** – The use of the vocal folds and breathing to produce sound.
- **Fluency** – The rhythm of sounds

Language theories

- Learning/behavioristtheories: Say what I say
- Biological/nativisttheories: It's all in your mind
- Interactions theories: Learning from inside and out

Basic stages of language acquisition Universal Milestones

- Cooing: Appears at about 6 months or so. All infants coo using all the phonemes from every language. Even congenitally deaf children coo
- Babbling: Appears at around 9 months. Infants are starting to selectively use the phonemes from their native language
- One-word utterances: At around 12 months, children start using words
- Telegraphic speech: Children start making multi word utterances that lack function words. (About 2 years old)
- Normal speech: By about 5 6 years of age, children have almost normal speech

Factors affecting the growth of language and learning to speak:

- Sex: girl more advance
- IQ
- Media
- Social environment
- Family relationships
- General health of the child
- Members relating to the safety of linguistic growth

Speech and language disorders

- **Organic:** caused by problem in the neuromuscular mechanism of the person (hereditary malformations, prenatal injuries, toxic disturbances, tumors, traumas, seizures, infectious diseases, muscular diseases)
- **Functional:** those with no identifiable origin

Speech disorders

- **Speech disorder:** refers to difficulty in producing sounds
- **Articulation:** production of individual or sequenced sounds e.g Substitutions, omissions, additions, and distortions
- **Voice disorders:** pitch, duration, intensity, resonance, and vocal quality
- **Fluency disorders:** interruptions in the flow of speaking
- **Stuttering:** frequent repetition and/or prolongation of words or sounds

Language disorder

- **Language disorder** refers to difficulty in receiving, understanding, and formulating ideas and information. Speech disorders
- **Classification according to when the disorder began**
  - Congenital: present at birth
  - Acquired: occurs well after birth

Ways that you can help a young child to develop language skills:

- Talking
- Playing
- Reading
- Responding

Important points for Parents

- Talk to your child -even if your child does not seem to understand at first. Talk often about what you are doing or what you see aroundyou.
- Give you child time toresp ond.
- Eye level –Get down to your child's eye level and look at your child as you are listening. Show your child that you aresincere.
- Observe your child's attempts to communicate. Appreciate any attempt to communicate as a step towards languagedevelopment.

Early childhood

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Stages of Growth and Development

- Prenatal
  - Embryonic (conception- 8 w)
  - Fetal stage (8-40 or 42 w)
- Infancy
  - Neonate
    - Birth to end of 1 month
  - Infancy
    - 1 month to end of 1 year
- Early Childhood
  - Toddler
    - 1-3 years
  - Preschool
    - 3-6 years

Stages of Growth and Development

- Middle Childhood
  - School age
  - 6 to 12 years

- Late Childhood
  - Adolescent
  - 13 years to approximately 18 years

- **Early childhood** is **defined** as the period from birth to eight years old. A time of remarkable brain growth, these years lay the foundation for subsequent learning and development.
- In psychology the term, *early childhood* is usually defined as the time period from the age of two until the age of six or seven years. There are three simultaneous development stages

Early childhood

- Early childhood is defined as the period from prenatal development to eight years of age. What a child experiences during the early years sets a critical foundation for the entire life course.
- This is because early child development including health, physical, social/emotional and language/cognitive domains strongly influences basic learning, school success, economic participation, social citizenry and health.

The importance of Early Childhood

- It is the most rapid period of development in a human's life and is critical to a child's cognitive, social, emotional, and physical development.
- Early years of childhood form the basis of intelligence, personality, social behaviour, and capacity to learn and nurture oneself as an adult.

Physical Growth

- infant rapid growth and development
- Slows during preschool years
- Girls and boys gain 2 to 3 inches in height per year
- Weight gains remain fairly even at about 4 to 6 pounds per year
- Children become "slender" as height increases
- Boys become slightly taller and heavier than girls

Physical Growth

- Milestone
- Reflexes
- Gross motor skills

  -Involve large muscles used in locomotion

  balancing on one foot, walking up stairs, pedaling a bike

  -By age 4 to 5, most older preschoolers have mastered large motor skills.
- Fine motor skills involve the small muscles used in manipulation and coordination.

Cognitive development

- involves sensory learning, perceptual-motor integration, and simple attention. during the second year and infants begin to use symbols, cognitive skills expand to include planning, and goal-directed behavior. During the preschool age, with the rapid growth of language and the maturation of the prefrontal cortex, cognitive development involves the mastery of executive functions

Psychosocial Development

- Psychological and social development are interconnected. Psychoanalyst Erik Erikson identified various psychosocial stages, composed of basic conflicts, occurring throughout life.
- The first stage, spanning birth to 2 years, is characterized by trust development; a baby learns whether she can trust her environment based on her caregiver's response to her needs.

Psychosocial Development

- The next stage, occurring during the toddler years, is based around toilet training. Children develop a sense of autonomy with toileting success or feelings of shame and doubt with toileting failure. Independence is a crucial aspect of the loco motor stage, spanning ages 3 to 6 years.
- During this time, children develop initiative but may experience feelings of guilt if they are too assertive

Emotional Development

- By age 2, most children experience self-conscious emotions including pride and embarrassment. The toddler years are marked by frequent temper tantrums because children at that age do not have full control over their emotions.
- As children mature, they develop more effective ways of dealing with negative emotions

Brain Development

- Brain develops more quickly than any other organ during childhood

  -At 2 years, brain is 75% of adult weight

  -At 5 years, brain is 90% of adult weight
- Increase in brain size due in part to myelination of nerve fibers
- Preoperational stage lasts from age 2 to age 7.
- Language ability is the greatest symbolic activity during this stage.

Brain Development

- Parts of the brain involved in the ability to sustain attention and screen out distractions have become increasingly myelinated (between ages 4 and 7).
- Visual processing speed improves and reaches adult level (at adolescence)
- Functions of left and right hemispheres overlap
- The hemispheres are aided in cooperation by the myelination of the corpus callosum.

Table 7.1 Development of Gross Motor Skills in Early Childhood

2 YEARS (24–35 MONTHS)	3 YEARS (36–47 MONTHS)	4 YEARS (48–59 MONTHS)	5 YEARS (60–71 MONTHS)
• Runs well straight ahead • Walks up stairs, two feet to a step • Kicks a large ball • Jumps a distance of 4–14 inches • Throws a small ball without falling • Pushes and pulls large toys • Hops on one foot, two or more hops • Tries to stand on one foot • Climbs on furniture to look out of window	• Goes around obstacles while running • Walks up stairs, one foot to a step • Kicks a large ball easily • Jumps from the bottom step • Catches a bounced ball, using torso and arms to form a basket • Goes around obstacles while pushing and pulling toys • Hops on one foot, up to three hops • Stands on one foot • Climbs nursery-school apparatus	• Turns sharp corners while running • Walks down stairs, one foot to a step • Jumps from a height of 12 inches • Throws a ball overhand • Turns sharp corners while pushing and pulling toys • Hops on one foot, four to six hops • Stands on one foot for 3–8 seconds • Climbs ladders • Skips on one foot • Rides a tricycle well	• Runs lightly on toes • Jumps a distance of 3 feet • Catches a small ball, using hands only • Hops 2 to 3 yards forward on each foot • Stands on one foot for 8–10 seconds • Climbs actively and skillfully • Skips on alternate feet • Rides a bicycle with training wheels

Note: The ages are averages; there are individual variations.

Table 7.2 Development of Fine Motor Skills in Early Childhood

2 YEARS (24–35 MONTHS)	3 YEARS (36–47 MONTHS)	4 YEARS (48–59 MONTHS)	5 YEARS (60–71 MONTHS)
• Builds tower of 6 cubes • Copies vertical and horizontal lines • Imitates folding of paper • Prints on easel with a brush • Places simple shapes in correct holes	• Builds tower of 9 cubes • Copies circle and cross • Copies letters • Holds crayons with fingers, not fist • Strings four beads using a large needle	• Builds tower of 10 or more cubes • Copies square • Prints simple words • Imitates folding paper three times • Uses pencil with correct hand grip • Strings 10 beads	• Builds 3 steps from 6 blocks, using a model • Copies triangle and star • Prints first name and numbers • Imitates folding of piece of square paper into a triangle • Traces around a diamond drawn on paper • Laces shoes

Note: The ages are averages; there are individual variations.

Nutrition

- Nutritional needs vary by age.
  - -1- to 3-year-olds need 1,000 to 1,300 calories a day
  - -Appetite becomes erratic during 2nd and 3rd year of life and caloric needs decrease
  - -4- to 6-year-olds need 1,400 calories a day
- Children are often fed too much salt and sugar.
- Food preferences are somewhat environmental.
- Repeated exposure to a food increases the liking of it.
- Parents are the role model for which types of food a child will like to eat.

Accidents

- Number one cause of death in early childhood
  - -Motor vehicle accidents
- Boys
  - -More likely than girls to incur accidental injuries at all ages and in all socioeconomic groups
- Poor children
  - -Five times as likely to die from fires
  - -More than twice as likely to die in motor vehicle accidents
- High accident rate of low-income children may result in part from living in dangerous housing and neighborhoods.

QUESTIONS

Newborn stage

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Newborn stage

- Newborn stage is the first 4 weeks or first month of life. It is a transitional period from intrauterine life to extra uterine environment.

Physical growth of newborn

- **- Weight** = 2.700 – 4 kg
- - Wt loss 5% -10% by 3-4 days after birth
- - Wt gain by 10th days of life

  - **Note :** They lose 5 % to 10 % of weight by 3-4 days after birth as result of :

    - Withdrawal of hormones from mother.
    - Loss of excessive extra cellular fluid.
    - Passage of meconium (feces) and urine.
    - Limited food intake.

Height

Height

- Boys average Ht = 50 cm
- Girls average Ht = 49 cm
- Normal range for both (47.5- 53.75 cm)

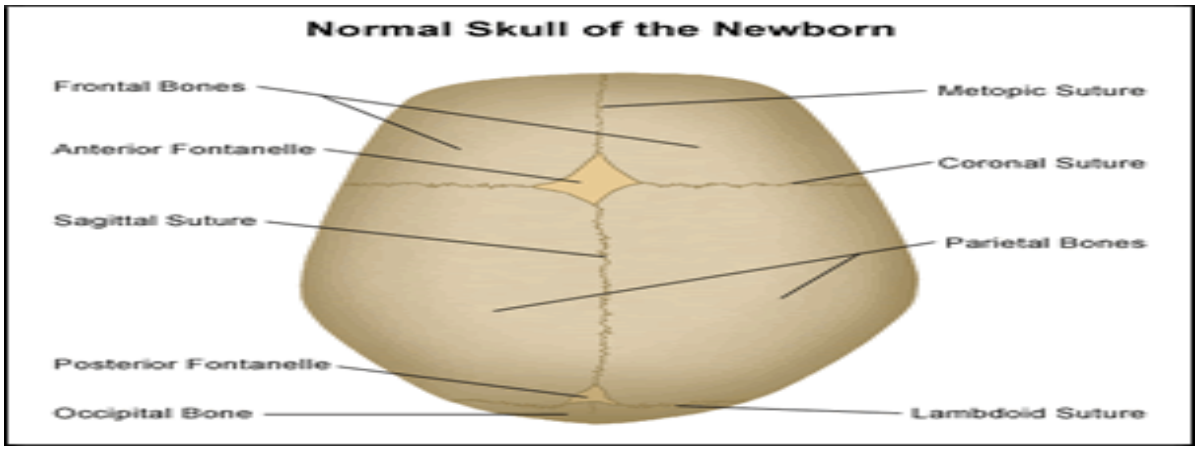
Head circumference

- 33-35 cm
- Head is ¼ total body length
- Chest circumference It is 30.5 to 33cm (usually 2–3cm less than head circumference).
- Skull has 2 fontanels (anterior & posterior)

Posterior fontanel

Posterior fontanel

- Triangular
- Located between occipital & 2 parietal bones
- Closes by the end of the 1st month of age



Normal Physiological growth of newborn

Normal Physiological growth of newborn

- Vital signs
  - - Temperature (36.3 to37.2°C).
  - - Pulse (120 to 160 b/min).
  - - Respiration (35 to 50C/min)

RESPIRATION

Normal Variations

30 to 60 respirations per min
Average - 40 respirations per min

HEART RATE (APICAL)

Normal Variations

100 to 160 beats per min
100 while sleeping
160 while crying

TEMPERATURE

Rectal

90.0° F to 99.5° F
(35.6° C to 37.5° C)

Axillary

97.6° F to 98.6° F
(36.5° C to 37.0° C)

BLOOD PRESSURE (AT BIRTH)

Average

75/42

Systolis

60 to 80 mm Hg

Diastolic

40 to 50 mm Hg

Assessment of newborn by using APGAR scores

APGAR scoring chart

SIGN	0	1	2	1 min	5 min
Heart Rate	Absent	Less Than 100	Over 100	2	2
Respiratory Effort	Absent	Slow, Irregular	Good Cry	1	2
Muscle Tone	Limp	Some Flexion	Active Motion	1	2
Reflex Irritability	No Response	Grimace	Cry	1	2
Color	Pale	Body Pink, Extr. Blue	All Pink	1	2
TOTAL SCORE				6	10

Reflexes of Newborns

- **Reflexes** are reflex actions originating in the central nervous system that are exhibited by normal infants, but not neurologically intact adults, in response to particular stimuli. These reflexes disappear or are inhibited by the frontal lobes as a child moves through normal child development.

These primitive reflexes are also called infantile, infant or newborn reflexes. As general reflexes divided to 3 main group

- Feeding (Rooting ,Gag And Swallowing, Sucking)
- Protective (Cough ,Sneezing, Yawing ,Blinking)
- Motor (Moro ,Startle ,Grasping ,Tonic-Neck, Stepping ,Babinski)

Considerations

- The presence and strength of a reflex is an important sign of neurological development and function .
- Many infant reflexes as the child grows older although some remain throughout adulthood.

Protective Reflexes :

Reflexes that persist into adulthood are :

- **Blinking reflex** – you blink your eyes when are touched or when sudden bright appears
- **Cough reflex** – you coughs when your airway is stimulated
- **Gag reflex**- you gag when the throat or back of moth is stimulated .
- **Sneeze reflex** – you sneeze when nasal passage irritated .
- **Yawn reflex-** you yawn when the body needs additional oxygen .

2.Feeding Reflexes:

2.Feeding Reflexes:

- **Sucking reflex** sucks when area around mouth stimulated
- **Rooting reflex:** is elicited by stroking the cheek. The infant will turn toward the side that was stroked and begin to make sucking motions with is mouth.
- **Gag R.**
- **Extrusion R.** When tongue is touched or depressed infant responds by foreign it outward.
- **Swallowing R.** This reflex is present at birth and persist throughout life .

3.Movement Reflexes :

Grasping Reflex:

- When the inside of the palm is touched, babies grasp a finger tightly.

Startle Reflex:

- When a baby is put down, held away, or hears a loud noise, a baby throws out their arms, draw back their head and stretch out their legs in response.

3.Movement Reflexes :

Babinski Reflex:

- Babies extend their toes when the soles of their feet are stroked.

Tonic neck reflex

- The tonic neck reflex, also known as asymmetric tonic neck reflex or 'fencing posture' is present at one month of age and disappears at around four months. When the child's head is turned to the side, the arm on that side will straighten and the opposite arm will bend (sometimes the motion will be very subtle or slight).

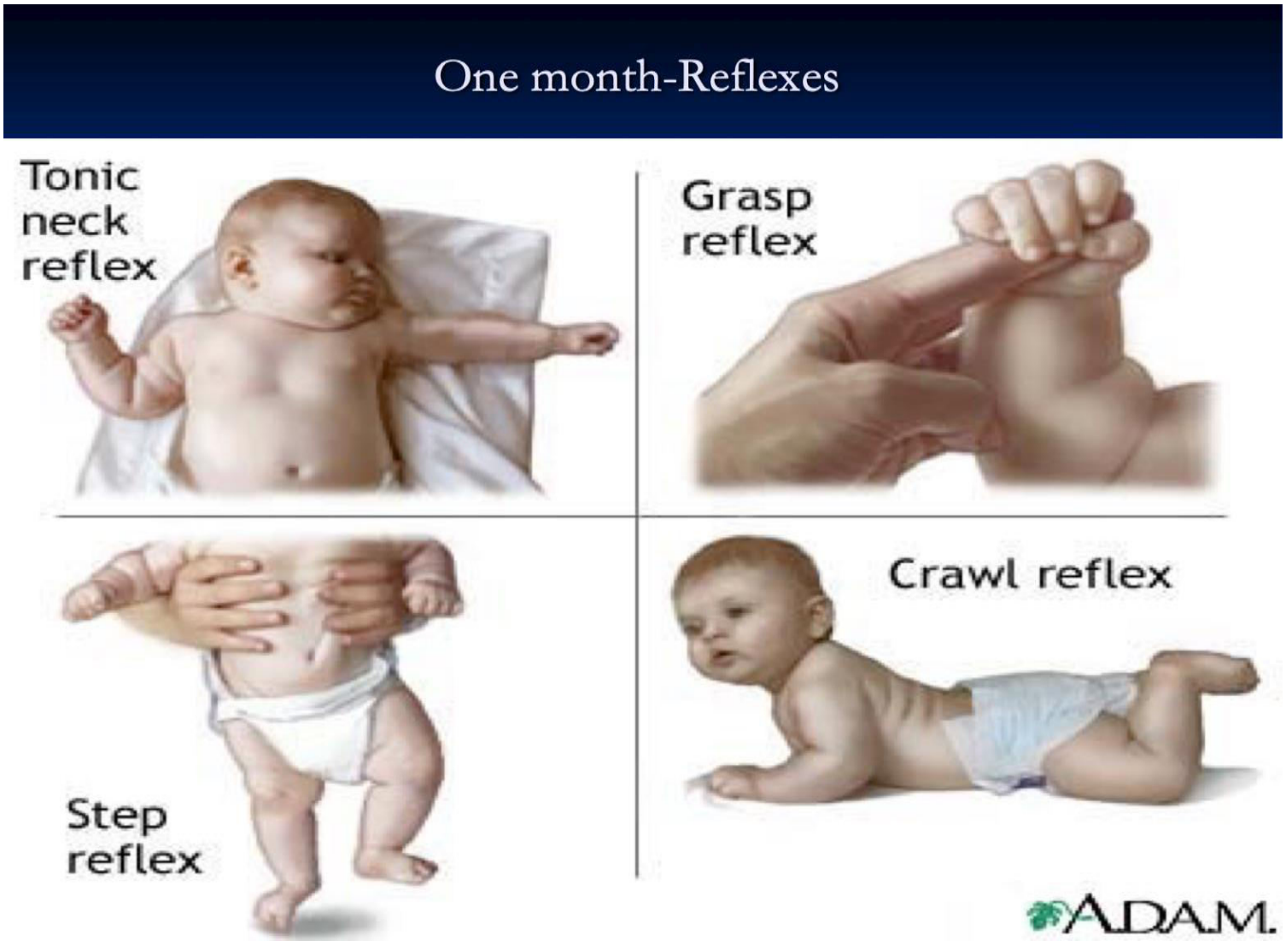
3.Movement Reflexes :

- **Babinski's reflex**

A gentle stroke on the sole of the foot (from heel to toe) .Foot turns in and toes flare up

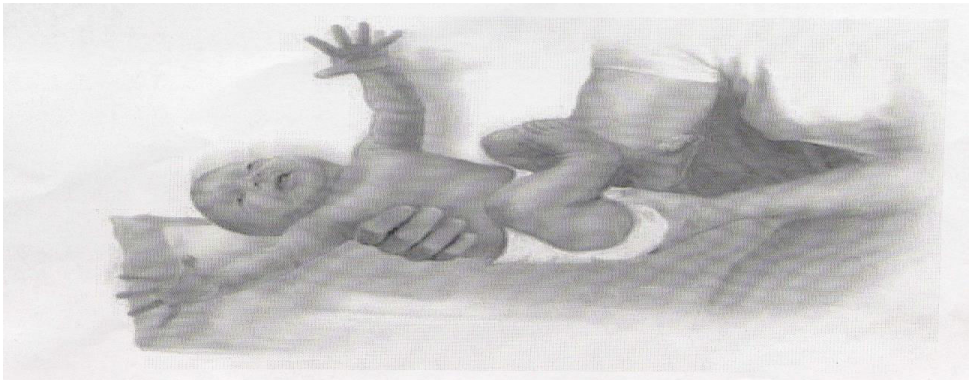
- **Crawl R. :**When placed on abdomen, infant make crawling movement , with arms and legs .

- **Dance or step R. :** Infants held sole of foot touches a hard surface there is a reciprocal flexion and extension of the leg. Simulating walking ,



3.Movement Reflexes :

- **More R :** sudden jarring or change in equilibrium cause sudden extension and abduction of extremities and fanning of fingers , with index finger and thumb forming C shape of extremities .



QUESTIONS

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INFANT STAGE

INFANT STAGE

It is the period which starts at the end of the first month up to the end of the first year of age. Infant's growth and development during this period are rapid

Physical growth of normal infant

Weight : the infant gains :

- **Birth to 4 months → ¾ kg /month**
- **5 to 8 months → ½ kg / month**
- **9 to 12 months → ¼ kg /month**

The infant will double his birth wt by 4-5 months and triple it by 10-12 months of age

Height

Length increases about 3 cm /month during the 1st 3 months of age,

then it increases 2 cm /month at age of 4-6 months,

Then, at 7 – 12 months, it increases 1 ½ cm per month

Head circumference

It increases about 2 cm /month during the 1st 3 months,

Then, ½ cm/month during the 2nd 9 months of age.

Posterior fontanel closes by 6-8 weeks of age.

Anterior fontanel closes by 12-18 months of age.

Chest circumference

Physiological growth of infants:-

Pulse 110-150 b/min

Resp 35 ± 10 b/min

Blood pressure 80/50 ± 20/10 mmHg

MILE STONE PHYSICAL GROWTH AND DEVELOPMENT OF INFANT STAGE

At 2 months

- **Hold head erects in mid-position.**
- **Turn from side back.**

At 4 months

Sit with adequate support.

Roll over from front to back.

At 6 months

Sit alone briefly.

Turn completely over (abdomen to abdome

At 9 months

Crawl (i.e., pull body while in prone position)

At 10 months
Walk but with help
At 11 months
Stand alone
At 12 months

- Stand-alone for variable length of time.
- Site down from standing position alone.
- Walk in few steps with help or alone (hands held at shoulder height for balance).

AMBULATION(MOTOR GROWTH)

Ambulation(motor growth)

9 month old: crawl

10 month old: creep

1 year: stand independently from a crawl & creep position

- **13 month old: walk quickly**
- **15 month old: can run**

Emotional infant development

His emotions are instable, where it is rapidly changes from crying to laughter.

His affection for or love family members appears.

Cognitive infant Development

Communicate at first by crying

Begin to say a few words

Explore objects by touching and putting them in their mouth

Piaget explain cognitive development as (sensori-motor)it mean the infant explain his sensation by motor movement

Social Development

He learns that crying brings attention.

The infant smiles in response to smile of others.

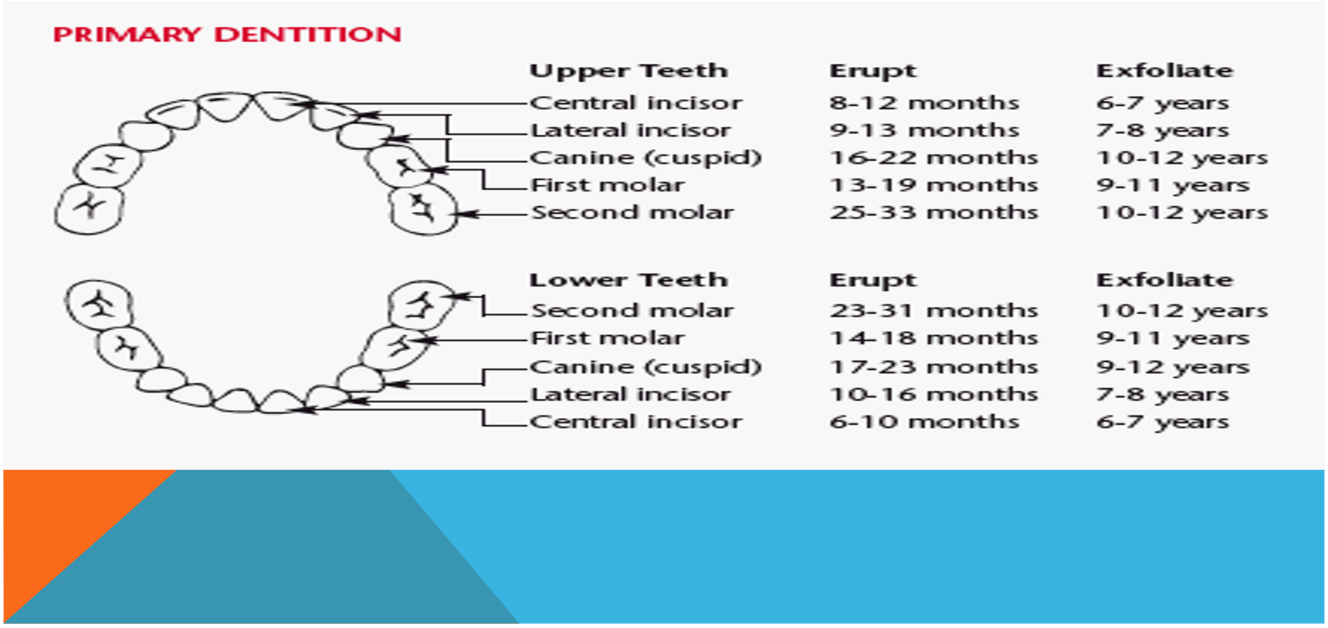
The infant shows fear of stranger (stranger anxiety).

He responds socially to his name.

According to Erikson, the infant develops sense of trust or mistrust. Through the infant's interaction with caregiver (mainly the mother), especially during feeding, he learns to trust others through the relief of basic needs.

Dentition

Eruption of teeth starts by 5–6 months of age. It is called "Milky teeth" or "Deciduous teeth" or "Temporary teeth".



COMMON INFANTS NEEDS

Love and security
Feeding (breast feeding)
Immunization
Sleep ,rest and quit environment
Safety measurement accident prevention
Playing
Bathing and clothing
Sucking pleasure
Fresh air and sunshine
Dental care

BASIC NEEDS

■Maslow's Hierarchy of Needs

■ ■Basic needs at each level need to be met before a child can progress to the
next highest level of growth and development.

■ ■Number One: Physiological needs must be met first: food, rest, air ,water.

■ ■Number Two: Activity is needed for stimulation, novelty, and change.

■ ■Number Three: The child has the need to be protected from harm and feel safe.

■ ■Number Four: Feeling loved and part of a group.

■ ■Number Five: Esteem needs to develop—the need to respect yourself and be respected by others.

■ ■Number Six: Self-actualization, or becoming a complete person and
reaching your greatest potential

Nutrition of infant

Nutrition is an essential component for healthy growth and development. Human milk is the preferred form of nutrition for all infants. Breastfeeding provides the infant with micronutrients, immunologic properties, and several enzymes that enhance digestion and absorption of these nutrients.

Infant Feedings

(Birth to 1 Month)
- **Breast every 2 to 3 hours**
- **Bottle every 3 to 4 hours**

(Two to 4 Months)
- **Breast or bottle every 3 to 4 hours**

(Four to 6 Months)
- **Breast or bottle four to six times per day**

(Six to 8 Months)
- **Iron-fortified rice cereal**
- **Breast or bottle four times per day**

(Eight to 10 Months)
• Finger foods (when the pincer grasp is present, the child is developmentally ready for finger foods)
• Chopped or mashed foods
• use cup with formula, breast milk, juice, or water
• Breast or bottle four times per day

(Ten to 12 Months)
• Self-feeding with fingers and spoon
• Most table foods allowed
• Breast or bottle four times per day

Playing and toys of infant

*Playing is the job of the infant .
*Kind of play in infancy stage is (solitary play) .
An 8-month
-old infant is sitting on the floor, grasping blocks and banging them on the floor
. Infants spend much of their time engaging in solitary play, or
playing by themselves
. When a parent walks by, the infant laughs and waves hands and feet wildly
. Physical capabilities enable the infant to move toward and reach out for objects of interest
. Cognitive ability is reflected in
manipulation of blocks to create different sounds
. Social interaction enhances play
. The presence of a parent or other person increases

Play and toys

Birth–3 months
Prefers visual stimuli of mobiles, black-and white patterns, mirrors.
Auditory stimuli are music boxes, tape players.
Moves legs and arms while adult sings and talks.

3–6 months Prefers noise-making objects that are easily grasped like rattles. Enjoys stuffed animals and soft toys with contrasting colors.

Sleeping patterns of infants

Sleep patterns vary among infants, Generally by 3 months of age, most infants sleep is 15 total hours with a nocturnal pattern of sleep that lasts from 9 to 11 hours and approximately three 1- to 2-hour naps during the day.
Consolidation of nocturnal sleep hours occurs during the first 12 months, with decreasing daytime sleep and increasing nighttime sleep (approximately 11.7 hours) by 1 year of age

COMMON INFANTS ACCIDENTS AND INJURIES

Aspiration (small things)
Burn
Falls
Injury by sharp instruments
Drowning
Suffocation
Poisoning
Motor damage

NEWBORN AND INFANT CARE GIVING GUIDELINES

Establish a daily routine
Talk to infants
Hold infants close while giving care
Provide an interesting environment
Be relaxed and calm
When holding young infants, support their head and neck.
Make the environment safe for the child by removing harmful objects that are within their reach.
Choose toys that are safe; check the size and sturdiness.
Pay special attention to their safety when they are crawling.

SUMMARY OF NURSING INTERVENTIONS

- Encourage parents to hold and stay with infant.
- Provide opportunities for sucking.
- Provide infant with toys that give comfort or stimulate interest

TODDLER STAGE

Toddler stage is between 1 to 3 years of age. During this period, growth slows considerably.

- It is a time of intense exploration of the environment
- children attempt to find out how things work; what the word “no” means; and

the power of temper tantrums, negativism, and obstinacy

Physical growth

The toddler's average weight gain is 1.8 to 2.7 kg/year

During 1–2 years, the child's height increases by 1cm/month.

The toddler's height increases about 10 to 12.5cm/year.

Physiological growth

Pulse: 80–130 beats/min (average 110/min).

Respiration: 20–30 b/min.

Bowel and bladder control: Daytime control of bladder and bowel control by 24–30 months

Head circumference

- The rate of increase in head circumference slows somewhat by the end of Infancy
- head circumference is usually equal to chest circumference by 1 to 2 years of age.
- The usual total increase in head circumference during the second year is 2.5 cm (1 inch).
- Then the rate of increase slows until age 5 years, when the increase is less than 1.25 cm (0.5 inch) per year.
-
- The anterior fontanel closes between 12 and 18 months of age.

Chest circumference

- During toddler years, chest circumference continues to increase in size and exceeds head circumference.

- After the second year the chest circumference exceeds the abdominal measurement, which, in addition to the growth of the lower extremities, gives the child a taller , leaner appearance.

TODDLER STAGE

By 2 years of age, the toddler has 16 temporary teeth.

By the age of 30 months (2.5 years), the toddler has 20 teeth

Grow rapidly, becoming taller and heavier

Strengthening of bones and muscles

Begin to walk, climb, run, throw balls, stack blocks and turn knobs

Begin to use a spoon and cup

Physical Skills

- Walks alone
- Pulls toys behind

when walking

- Begins to run
- Stands on tiptoe
- Kicks a ball

Gross and Fine Motor Development

- The major gross motor skill during the toddler years is the development of locomotion.
- By 12 to 13 months old, toddlers walk alone, using a wide stance for extra balance;
- by age 18 months old, they try to run but fall easily.
- Between 2 and 3 years of age, refinement of the upright, biped position is evident in improved coordination and equilibrium.
- At 2 years old toddlers can walk up and down stairs,
- and by age 2 & 1/2 years they jump using both feet, stand on one foot for a second or two, and manage a few steps on tiptoe.
- By the end of the second year they stand on one foot, walk on tiptoe, and climb stairs with alternate footing.

Fine motor development

- Fine motor development is demonstrated in increasingly skillful manual dexterity.
- Once toddlers achieve pincer grasp, usually at 9 to 10 months old, they combine this skill with other developing sensory and cognitive abilities.
- For example, by age 12 months old they are able to grasp a very small object.
- By age 15 months they can drop a pellet into a narrow-necked bottle.

Casting or throwing objects and retrieving them become an almost obsessive activity at about 15 months old.

- By 18 months old, toddlers can throw a ball overhand without losing their balance.

COGNITIVE DEVELOPMENT

Up to 2 years, the toddler uses his senses and motor development to different self from objects.

The toddler from 2 to 3 years will be in the pre-conceptual phase of cognitive development (2-4 years), where he is still egocentric and cannot take the point of view of other people.

Begin talking and saying short sentences
Understand more than they can say
Learn names of body parts and objects around them

Begin to understand a vague sense of time, counting, colors, shapes, sizes

- Finds objects even when hidden 2 or 3 levels deep
- Sorts by shape and color
- Plays make-believe

EMOTIONAL AND SOCIAL DEVELOPMENT

The toddler is very social being but still egocentric.

He imitates parents.

Notice sex differences and know own sex.

According to Erikson, The development of autonomy during this period is centered around toddlers increasing abilities to control their bodies, themselves and their environment i.e., "I can do it myself" .IF he fail he develop sense of shame and doubt

May be easily frustrated

May have extreme mood swings

Developing a sense of self worth

May have a fantasy life

- Imitates behavior of others
- Aware of rself as separate from others
- Enthusiastic about company of other children

Psychosocial Development

Toddlers are faced with the mastery of several important tasks. If the need
for basic trust has been satisfied, they are ready to give up dependence for control, independence, and autonomy.
Some of the specific tasks include the following:

- Differentiation of self from others, particularly the mother or primary caregiver
- Toleration of separation from parents
- Ability to withstand delayed gratification
- Control over bodily functions
- Acquisition of socially acceptable behavior
- Verbal means of communication
- Ability to interact with others

Play

- Play magnifies toddlers' physical and psychosocial development.

Interaction with people becomes increasingly important.

- The solitary play of infancy progresses to parallel play
- Imitation is one of the most distinguishing characteristics of play and

enriches children's opportunity to engage in fantasy.

- With less emphasis on sex-stereotyped toys, play objects such as dolls,

dollhouses, dishes, cooking utensils, child-sized furniture, trucks, and dress-up clothes are used by both sexes;

- however, boys may be more interested than girls in activities related to trucks, trailers, cars, plastic soldiers or superheroes,

and building blocks, whereas girls may prefer doll-related activities

SUMMARY OF DEVELOPMENTAL MILESTONES

- Walks up and down stairs; Kicks a ball.
- Undresses self.
- Scribbles on paper.
- Has a vocabulary of 1000 words and uses short sentences.

COMMON TODDLER NEEDS

Love and security

Healthy nutrition

Immunization

Graded independent

Toilet training

One of the major tasks of toddlerhood is toilet training.

Voluntary control of the anal and urethral sphincters is achieved

sometime after the child is walking, probably between ages 18 and 24 months

-Bladder control at night 3 y.

at day 2y.

-Bowel control at night 2y.

at day 18 m.

Playing

Bathing and clothing

Learning language

COMMON TODDLER NEEDS

SLEEP AND ACTIVITY

• Total sleep time decreases only slightly during the second year and averages about 11 to 12 hours.

• Most toddlers take one nap a day, and by the end of the second or third year, many relinquish this habit.

• Toddlers are more prone to having bedtime resistance (refusal to go to bed) and frequent night waking.

Fears can be provoked by a child's daily stressors, such as pressure to toilet train, moves, sibling birth,

experiences of loss, or separation from parents.

• Consistent nightly bedtime is associated with better sleep patterns, such as shorter sleep

TODDLERSDEVELOPMEN TPROBLEMS

Negativism : is defined as behavior that is extremely resistant to both inner and outer stimulation. This condition is often present to some degree in toddlers .It characteristic by recurrent say No No . child can effectively use words to express his desires and needs

Management

- ❑ Avoid punishment
- ❑Minimize opportunities for "no
- ❑Let her participate in the decision-making process
- ❑Try to make your child a partner in simple tasks

TODDLERS DEVELOPMENT PROBLEMS

Temper tantrum: A tantrum is the expression of a young child's frustration with the challenges of the moment. Temper tantrums are emotional and physical "meltdowns" common among children in the 2- to 4-year-old age range. The toddler may demonstrate a number of characteristic behaviors, including screaming, kicking, lying on the floor, and occasionally holding his breath.

Can tantrums be prevented

Be consistent

Establish a daily routine so that your child knows what to expect

Encourage your child to use words

Let your child make choices.

To give your toddler a sense of control, let him or her make appropriate choices

Praise good behavior

Remain calm

avoid punishment

given a toy to divert his attention

TODDLERS DEVELOPMENT PROBLEMS

- **Jealous from other baby**
- **Ritualistic behavior**
- **Power struggles – conflict between parent and child**

-- avoid them, child will outgrow them by 3.

1. **give them choices – stay away from yes or no questions**
2. **divert attention to something else**
3. **remove yourself from conflict or put them in timeout**

COMMON TODDLER ACCIDENTS AND INJURIES

Motor accident

Falls

Burn

Injury by sharp instruments

Drowning

Suffocation

Poisoning

TODDLER CARE GIVING GUIDELINES

Provide toys at the child's ability level: Puzzles

Take walks to explore surroundings and talk about what's being seen.

Identify objects the child can see, hear, smell, touch or taste.

Read to the child and name objects in pictures.

Let the child help with simple household tasks.

Compliment the child on their good behavior and accomplishments.

SUMMARY OF NURSING INTERVENTIONS

- Maintain toilet-training procedures.
- Encourage appropriate independent behavior.
- Give short explanations.
- Provide rewards for appropriate beha

PRESCHOOLERS STAGE

PRESCHOOLERS STAGE

It is the stage where child is 3 to 6 years of age. The growth during this period is relatively slow.

Physical growth:-

- **Weight: The preschooler gains approximately 1.8kg/year.**
- **Height: He doubles birth length by 4–5 years of age.**

PHYSIOLOGICAL GROWTH

- Pulse: 80–120 beat/min. (average 100/min).
- Respiration: 20–30C/min.
- Blood Pressure: 100/67±24/25.
- Arms and legs become longer in relation to their torso
- Becomes thinner
- Improved ability to hop, skip, catch and throw and balance on one foot
- Can feed themselves
- Can draw somewhat realistic pictures

PHYSICAL DEVELOPMENT

- Growth is slow and gradual.
- Appetites are small.
- Nutrition is especially important.
- Children begin to lose babylike features.
- Heart rate slows and steadies
- Blood pressure increases
- Digestive tract matures, lags behind other organs

PHYSICAL DEVELOPMENT

Motor Development

- Small and large motor skills are refined and complex.
- Preschoolers master greater control of their bodies.
- Activities and skills include
  - running, galloping, hopping, and climbing.
  - balance beam.
  - Standing on one foot – static
  - ball throwing.
  - swaying to music; learning rhythms and dances.
  - bicycle riding. – dynamic

FINE-MOTOR DEVELOPMENT

3 year olds	4 year olds	5 year olds
Builds uneven tower of blocks	Cuts on line with scissors	Folds paper along the diagonal
Pours water from a pitcher	Washes hands	Copies a square and a triangle
Copies a circle	Copies a letter	Traces a diamond shape
Draws a straight line	Makes a few letters	Laces shoes and may tie them

COGNITIVE DEVELOPMENT

Preschooler up to 4 years of age is in the pre-conceptual phase. He begins to be <u>able to give reasons for his belief and actions, but not true cause-effect relationship.</u>

- **Ask "who, what and where" questions about their environment**
- **Use short sentences to carry on a conversation**
- **Begin to learn about reading, writing and following directions**
- **Can concentrate on a task**

EMOTIONAL AND SOCIAL DEVELOPMENT

- **Egocentric**
- **Tolerates short separation**
- **Less dependent on parents**
- **May have dreams & night-mares**
- **Attachment to opposite sex parent**
- **More cooperative in play**

EMOTIONAL AND SOCIAL DEVELOPMENT

According to Erikson theory: The preschooler is in the stage where he develops a sense of initiative, Where he wants to learn what to do for himself, learn about the world And other people. When he fail he develop sense of guilt .

- **Can understand and follow rules**
- **Have a sense of right and wrong**
- **Want to avoid punishment and gain rewards**
- **Express feelings**
- **Need to develop positive feelings about themselves**
- **May have fears, such as of the dark**

NEEDS OF PRESCHOOL CHILD

- **Love and security**
- **Independent**
- **Guidance (set of rules)**
- **Sex information (masturbation odepal complex and Electra complex)**
- **Religion information**
- **Learning language**
- **Healthy nutrition**
- **Playing and exercise**
- **Safety measure**

DEVELOPMENT PROBLEMS OF PRESCHOOL CHILD

- Thumb sucking
- Food like and dislike
- Enuresis: (physiological or psychological) if the enuresis is nocturnal (night)they best treat by decrease fluid ,walking schedule and avoid punishment
- Encompresis : (physiological or psychological)
- Selfishness
- Bad language
- Destructiveness :break things and Hurting other

PHYSICAL NEEDS OF PRESCHOOL CHILD

- Love and security
- Healthy nutrition
- Sleep ,rest and quit environment
- Playing
- Learning language
- Routine health examination (visual ,auditory screening test)

COMMON PRESCHOOLERS ACCIDENTS AND INJURIES

- Motor accident
- Drowning
- Falls
- Burn
- Injury by sharp instruments or play contact
- Suffocation
- Poisoning

PRESCHOOLERS CARE GIVING GUIDELINES

- Build motor skills by providing water play, encouraging running, skipping, playing catch and with games like hide and seek and Simon Says.
- Do simple crafts, storytelling, use puppets and play dress up.
- Encourage the child to talk about their activities, artwork and feelings about their friends and family.
- Provide puzzles, cutting and coloring activities.
- Assign household tasks and help the child to successfully complete the task.
- Talk with the child about their everyday activities and feelings, encouraging their questions.

SUMMARY OF DEVELOPMENT MILESTONES

- Uses scissors.
- Rides bicycle with training wheels.
- Throws a ball.
- Writes a few letters.
- All parts of speech well-developed.

SUMMARY OF NURSING INTERVENTIONS

- Encourage parents to be involved in care of child.
- Provide safe versions of medical equipment for playtime.
- Give clear explanations about procedures and illnesses.

SCHOOL AGE

SCHOOL AGE

School-age period is between the age of 6 to 12 years. The child's growth and development is characterized by gradual growth.

Physical Development

- **Weight:**

- **School–age child gains about 3.8kg/year.**
- **Boys tend to gain slightly more weight through 12 years**

SCHOOL AGE

Height:

The child gains about 5cm/year.

Body proportion during this period: Both boys and girls are long-legged.

Dentition:

Permanent teeth erupt during school-age period, starting from 6 years, usually in the same order in which primary teeth are lost.

Replacement of baby teeth with permanent teeth

Increased ability in large motor skills – kicking and catching a ball

PHYSIOLOGICAL GROWTH

Pulse: 90±15 beats/min

(75 to 105).

Respiration: 21±3C/min

(18–24).

Blood Pressure: 100/60±16/10.

COGNITIVE DEVELOPMENT

- **At 7-11 years, the child now is in the concrete operational stage of cognitive development. He is able to function on a higher level in his mental ability.**
- **Greater ability to concentrate and participate in self-initiating quiet activities that challenge cognitive skills, such as reading, playing computer and board games.**
- **Exploring and testing of their environment and ideas**
- **Asking many questions about how and why things are as they are**
- **Learning math, reading and writing skills**
- **Expanding vocabularies by about 5000 words per year**

NORMAL DEVELOPMENT: COGNITIVE

	Preoperational	Concrete Operations	Formal Operations
Age	**2-7**	**7-11**	**>12 (or never)**
Problem Solving and Reasoning	Concrete (based on past experience), trial and error, magical thinking	Based on rules of logic, planning	Abstract, flexible, rational, testing hypotheses
Ability to take perspective of another person	No	Yes	Yes
Morality	Objective (rules only)	Subjective (can by gray)	Laws are valid if they are just. "Question authority."
Ability to work with symbols (i.e. numbers)	Sorting, matching, ordering	Manipulating (i.e. add and subtract)	Abstract concepts (geometry, algebra)
Understanding that characteristics of object conserved despite looking different	No	Yes	Yes

EMOTIONAL AND SOCIAL DEVELOPMENT

- Continues to be egocentric.
- Erickson describe social development (industry vs inferiority)
- Wants other children to play with him.
- Improves relationship with siblings.
- Respects parents and their role.
- Joints group (formal and informal).
- Engage in tasks in the real world.
- Taking more responsibility for their behavior

EMOTIONAL AND SOCIAL DEVELOPMENT

- Discovering that rules may be flexible
- Knowing difference between right and wrong
- Recognizing others have feelings
- Feeling of fear may decrease

PROBLEMS OF SCHOOL CHILD

- School phobia
- Aggressive behavoir
- Stealing
- Enuresis:
- Encopresis
- Difficult in learning
- Lie or lying
- Aggressive behavoir
- Stealing
- Enuresis:

PROBLEMS OF SCHOOL CHILD

- Encopresis
- Difficult in learning
- Lie or lying
- Dental problems
- Exposure to communicable diseases
- Malnutrition or obesity
- Bad language
- Destructiveness
- Hurting other
- Smoke and alcoholism

NEEDS OF SCHOOL CHILD

- Healthy nutrition
- Sleep (10-11 hr.)
- Playing
- Learning language
- Safety measures
- Routine health examination or scho (visual ,auditory screening test ,heig posture)

COMMON SCHOOL ACCIDENTS AND INJURIES

- Motor accident or bike accident
- Drowning
- Falls
- Burn
- Injury by sharp instruments or play contact
- Suffocation
- Poisoning

GUIDANCE OF SCHOOL AGE

- School problems
- Sexual education (female)
- Accident prevention
- Behavioral problem
- Health maintenance

SCHOOL AGE CHILDREN CARE GIVING GUIDELINES

Support the child's involvement in learning and participating in school activities.

Help the child to develop one or two special interests, such as collecting stamps or rocks, studying birds, playing an instrument, or getting involved in a sport.

Help them develop one or two special interests such as collecting of something like stamps, rocks, or studying birds.

SCHOOL AGE CHILDREN CARE GIVING GUIDELINES

Encourage friendships and involvement in groups of children you know well.

Provide ways for the child to learn responsibilities such as caring for pets.

Encourage healthy eating habits and appropriate feelings about body image.

SUMMARY OF NURSING INTERVENTIONS

- Provide for privacy and modesty.
- Explain treatments and procedures clearly.
- Encourage continuation of school work.

SUMMARY OF DEVELOPMENT MILESTONES

- Better reading ability.
- Rides a two-wheeled bike.
- Jumps rope.
- Plays organized sports.
- Mature use of language.

Adolescent stage and Adulthood

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* **Adolescence** is a transition period from childhood to adulthood. It is based on childhood experiences and accomplishments.
* It begins with the appearance of secondary sex characteristics and ends when somatic growth is completed and the individual is psychological mature.

Physical growth:

Weight:

* Growth spurt begins earlier in girls (10–14 years, while it is 12–16 in boys).
* Males gains 7 to 30kg, while female gains 7 to 25kg.

Height:

* By the age of 13, the adolescent triples his birth length.
* Males gains 10 to 30cm in height.
* Females gains less height than males as they gain 5 to 20cm.
* Growth in height ceases at 16 or 17 years in females and 18 to 20 in males

Physiological growth

- **Pulse:** Reaches adult value 60–80 beats/min.
- **Respiration:** 16–20C/minute.
- **Note :**The sebaceous glands of face, neck and chest become more active. When their secretion accumulates under the skin in face, **acne will appear**.

Appearance of secondary sex characteristics

1- Secondary sex characteristics in girls:

- Increase in transverse diameter of the pelvis.
- Development of the breasts.
- Change in the vaginal secretions.
- Growth of pubic and axillary hair.
- Menstruation (first menstruation is called menarche, which occurs between 12 to 13 years).

Appearance of secondary sex characteristics

2- Secondary sex characteristics in boys:

- Increase in size of genitalia.
- Swelling of the breast.
- Growth of pubic, axillary, facial and chest hair.
- Change in voice.
- Rapid growth of shoulder breadth.
- Production of spermatozoa (which is sign of puberty).

Cognitive development:

- Through formal operational thinking, adolescent can deal with a problem.
- Abstract thinking

Emotional development:

- This period is accompanied usually by changes in emotional control. Adolescent exhibits alternating and recurrent episodes of disturbed behavior with periods of quite one. He may become hostile or ready to fight, complain or resist everything.

Social development:

- He needs to know "who he is" in relation to family and society, i.e., he develops a sense of identity. If the adolescent is unable to formulate a satisfactory identity from the multi-identifications, sense of self-confusion will be developed according to **Erikson develop sense of (identity vs role confusion)**

Social development:

- Adolescent shows interest in other sex.
- He looks for close friendships
- As teenagers gain independence they begin to challenge values
- Critical of adult authority
- Relies on peer relationship

Adolescent problems

- Nutrition problems (Anorexia nervosa ,Bulimia and Pica)
- Attention deficit
- Anger issues
- Acne
- Postural disorder
- Fatigue or quickly tired
- Anemia

Adolescent problems

- Nocturnal emission
- Masturbation
- Menstrual problems (amenorrhea, dysmenorrheal)
- Sleep problems (nightmares ,insomnia)
- Psychological problems (depression ,isolated and Suicide)
- Obesity
- Bad school performance

Adolescent Needs and Teaching

- Relationships
- Love and respect from other
- Privacy
- Sleep
- Playing and exercise
- Nutrition
- Sexuality – STD's / AIDS
- Substance use and abuse
- Driving
- Access to weapons

Summary of Nursing Interventions for adolescent

- Provide privacy.
- Interview and examine adolescent without parents present, if possible.
- Encourage adolescent participation in treatment and decision making.
- Encourage visitation of peers.

Summary of Milestones for adolescent

- Fine motor skills well-developed.
- Gross motor skills improve due to growth spurts.
- Able to apply abstract thought and analysis.

Adulthood

* **Early adulthood** - begins in late teens/early 20s and lasts through the 30s

- Early adulthood is a time of:
  - establishing personal and economic independence
  - developing a career
  - Identity exploration, especially in **love** and **work**
  - selecting a mate
  - learning to live with someone in an intimate way
  - starting a family
  - rearing children

Physical Development in Early Adulthood

- Physical strength typically peaks in early adulthood (the 20's and 30's)
- Physical changes are minimal during this phase , the weight and muscle mass change as a result of diet , exercise ,pregnancy and lactation.
- Growth and strength in early adulthood, then slow process of decline afterwards
- Decline affected by health and lifestyles

Cognitive Development in Early Adulthood

- Piaget believed that the **formal operational stage** (ages 11 to 15) is the highest stage of thinking
- Adults gain knowledge, but ways of thinking are the same as those of adolescents
- Thinking in early adulthood becomes more realistic and pragmatic

Psychosocial Development in Early Adulthood

- During early adulthood, individuals enter Erikson's **intimacy versus isolation stage** (developmental task of forming intimate relationships with others or becoming socially isolated)
- Independence: separation from family of origin
- Learn to function without using parents as major source of comfort, security, direction
- Establish sense of "equal

Middle Adulthood

Middle adulthood - period from 40 years of age to about 60

- Middle adulthood is time of:
- expanding personal and social involvement and responsibility
- assisting next generation in becoming competent, mature individuals
- reaching and maintaining satisfaction in a career
- A decline of physical skills
- Balancing work and relationships

Physical Development in Middle Adulthood

- Females may experience bone loss as early as age 35. Men may not experience it until age 65.
- Muscle strength may begin to decline.
- Hair may begin to turn gray and thin; wrinkles appear in the skin.
- Chronic health problems such as hypertension, heart disease, and diabetes may surface.
- Sensory Effects of Aging
- -Decline in vision becomes more pronounced
- -Hearing undergoes a gradual decline beginning in middle adulthood.
- The Female Climacteric & Menopause, Starting about age 45

Physical Development in Middle Adulthood

- The most common is the enlargement of the prostate gland.
- Symptoms are problems with urination, including difficulty starting to urinate and frequent need to urinate during the night.
- Men still produce sperm and can father children through middle age.
- Accidents because of decrease visual acuity.
- Men have higher mortality rates than women

Cognitive Development in Middle Adulthood

- Some intellectual abilities decline in middle age, but others increase
- Acquired store of information, skills, strategies increases in middle adulthood
- Ability to deal with new situations begins to decline in middle adulthood

Psychosocial Development in Middle Adulthood

- **Generativity versus stagnation** - Erikson's seventh stage, in which individuals leave a legacy of themselves to the next generation (generativity)

Late adulthood

Late adulthood - period that begins in the 60s and lasts until death

- Late adulthood is the time of:
  - adjusting to retirement
  - decreasing strength and health
  - new social roles
  - reviewing one's life

Physical Changes

- The blood vessels shrink
- Reduction in the capacity of the heart to pump blood throughout the circulatory system
- Produces less digestive juice
- Constipation
- Wrinkles and age spots become more noticeable, skin loses its elasticity & collagen
- –Hair becomes thinner and grayer

Physical Changes

- Nails become thicker and more brittle with ridges
- Yellowing of teeth
- Sleep has more wakeful periods, with more time spent lying in bed – more tiredness in the mornings

Cognitive Development in Late Adulthood

- When speed of processing is involved, older adults do more poorly than younger adults
- Older adults do more poorly in most areas of memory
- Wisdom (expert knowledge about practical aspects of life) may increase with age
- Speed of processing information declines in late adulthood
- decline in brain and CNS functioning
- Attention: less effectively older adults attention

Psychosocial Development in Late Adulthood

- **Includes achieving what Erikson called Ego Integrity: The** feeling that one's life has been meaningful, **vs. Despair** – feelings of regrets or bitterness about past mistakes, missed opportunities, or bad decisions; a sense of disappointment in life

*

Aspects of Elderly Care

- The need for sleep may decrease, but short periods of rest throughout the day may offset the loss.
- –Social contact should persist.
- –Regular health and dental checkups should continue.
- –Individuals should maintain active interests.

Adjustment Strategies for Successful Aging

Don’t abuse alcohol and don’t smoke

2. Exercise regularly and avoid being overweight
3. Be well educated
4. Use your intellectual skills
5. Develop coping skills
6. Have good friends and/or a loving partner

Ageism

The definition of Ageism

- Discrimination based on chronological age. Ageism includes negative beliefs, attitudes, and stereotypes about elderly persons.
- Although ageist attitudes are relatively easy to identify, it is unclear how these attitudes translate into actual behavior Ageism in common parlance and age studies usually refers to negative discriminatory practices against old people

Ageism

- **AGEISM,** prejudice and discrimination directed at older people, is manifested in several ways.
- Negative attitudes about older people, especially about competence and attractiveness.
- Job discrimination
- Identical behavior by an older person and a younger person is interpreted differently