SUBJECT NAME : CHILD HEALTH NURSING

UNIT : II UNIT, THE HEALTHY CHILD

TOPIC : GROWTH & DEVELOPMENT

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- Objectives
- Definition
- Principles
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GROWTH AND DEVELOPMENT

OBJECTIVES

- Definition of growth and development
- Principles of growth and development
- Factors affecting growth and development
- Growth and development from birth to adolescence

INTRODUCTION

- Growth denotes increase in physical size of the body and development denotes improvement in skills and function of an individual.

- Together they denote physical, intellectual, emotional and social wellbeing of a person.

- Normal growth and development is observed only if there is proper nutrition and without any recurrent episodes of infection.

GROWTH AND DEVELOPMENTAL AGE PERIODS

- Infancy
  - Neonate (birth to 1 month)
  - Infancy (1 month to 1 year)
- Early childhood
  - Toddler (1-3 years)
  - Preschool (3-6years)
- Middle child hood
  - school age (6-12 years)
- Late childhood
  - Adolescent(13 years to approximately 18 yrs)

DEFINITION

GROWTH

- It refers to an increase in physical size of the body and various organs.
- It is quantitative changes of the body. It can be measured in kgs, pounds, meters, inches etc..

DEVELOPMENT

- It is the process of functional and physiological maturation of the individual.
- It is progressive in skill and capacity to function.
- It is a qualitative change in the child's functioning. It can be measured through observation

GROWTH

- Growth is cellular. It takes place due to the multiplication of cells.
- Growth may or may not bring development.

DEVELOPMENT

- Development is organizational. It is organization of all the parts which growth and differentiation have produced.
- Development is also possible without growth.

GROWTH

- It is a part of development process. Development in its quantitative aspects termed as growth.
- Growth does not continue throughout life. It stops when maturity has been attained.

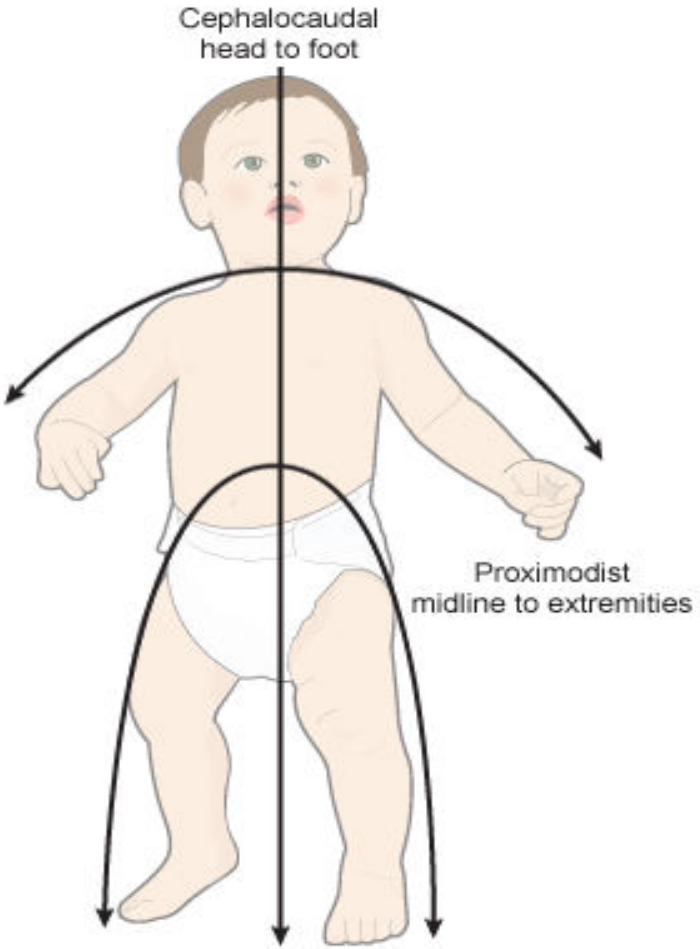
DEVELOPMENT

- It is a comprehensive and wider term and refers to overall changes in the individual.
- Development is a wider and comprehensive term and refers to overall changes in the individual. It continues throughout life and is progressive.

PRINCIPLES OF GROWTH AND DEVELOPMENT

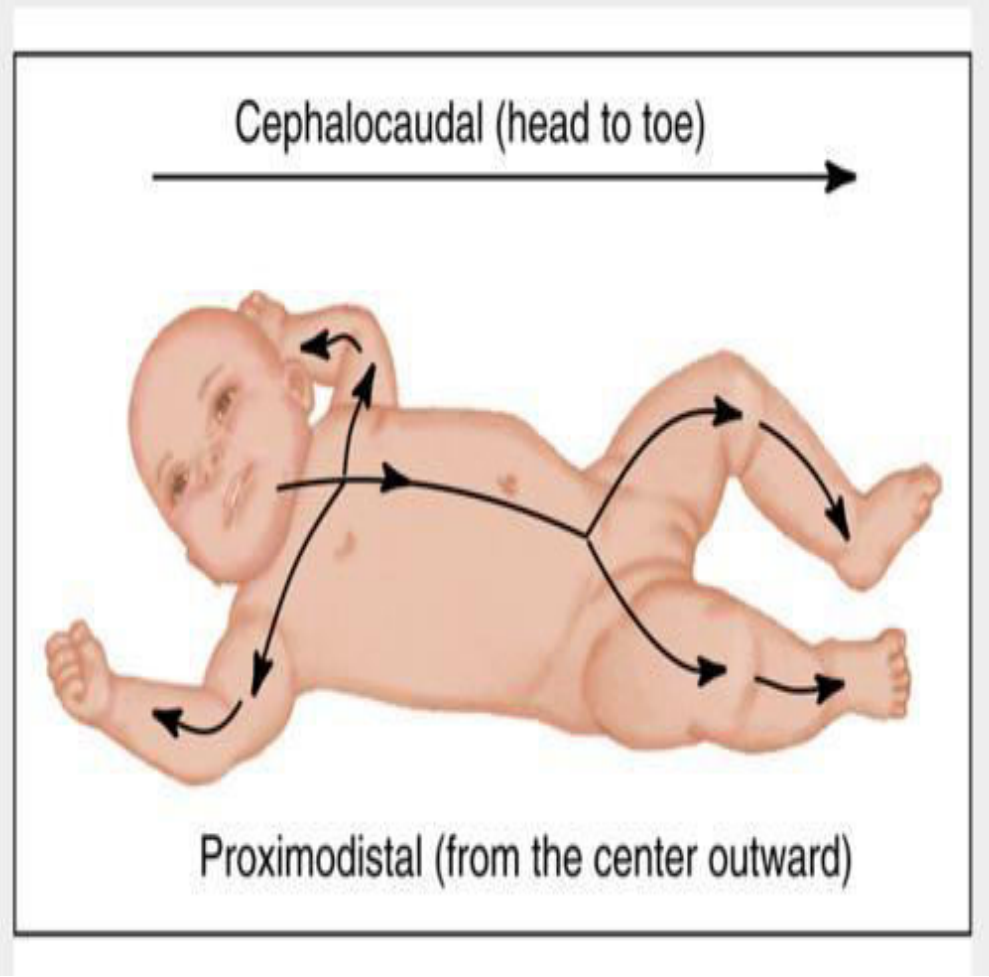
1. Cephalocaudal

- Describes the direction of growth and development.
- The head region starts growth at first, following by which other organs starts developing



2. Proximodistal

- The directional sequence of development during both prenatal and postnatal stages may either be (i) from head to foot,
- (ii) from the central axis to the extremities of the body.
- The spinal cord develops before outer parts of the body.



3. Development is Continuous:

- The process of growth and development continues from the conception till the individual reaches maturity.
- It goes on continuously throughout life. Even after maturity has been attained, development does not end.

4. Development is Gradual:

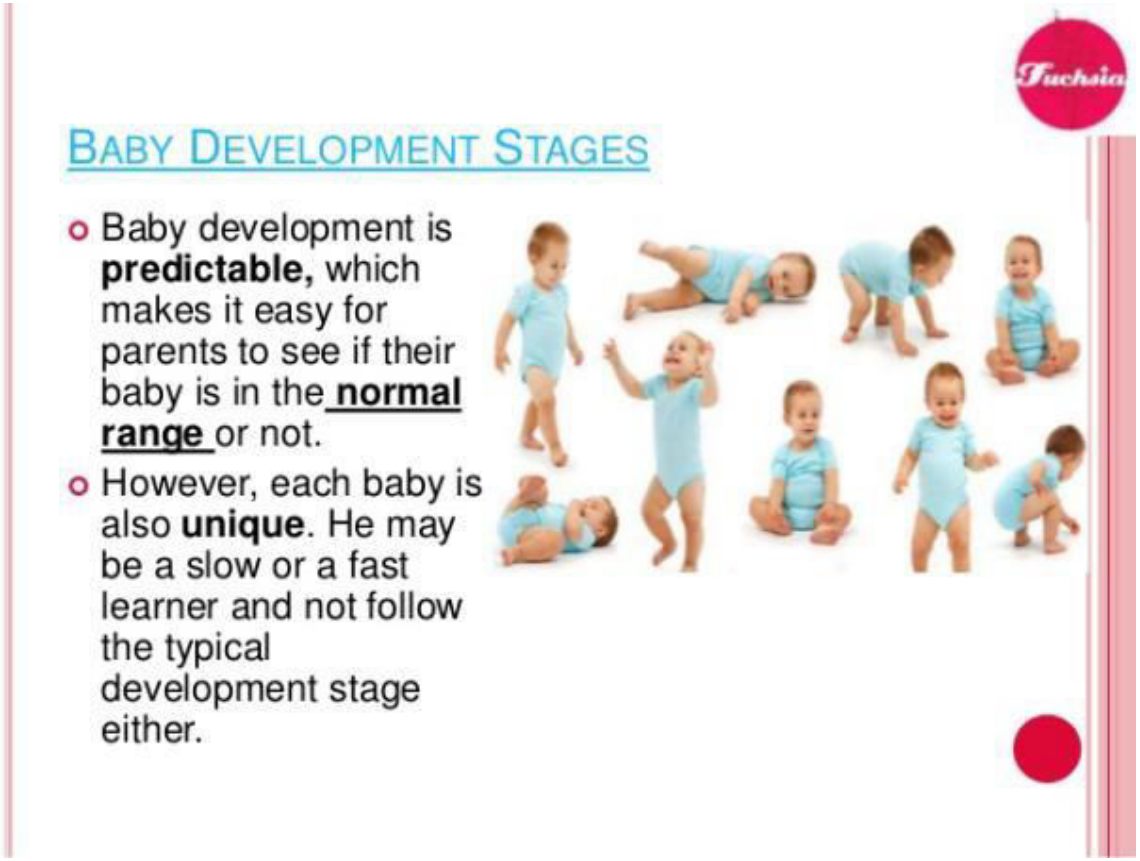
- It does not come all on a sudden. It is also cumulative in nature.

5. Development is Sequential:

- development is sequential or orderly
- the sequence of development is that the child learns sitting first before it can stand; it learns standing first before it can walk.

6. Growth and development is predictable

- The difference in physiological and psychological potentialities can ‘ be predicated by observation and psychological tests.



7. Development proceeds from simple to complex

- 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

8. Development Proceeds from General to Specific:

- In all areas of development, general activities always precedes specific activity.
- Eg:The fetus moves its whole body but incapable of making specific responses
- Infants wave their arms randomly. They can make such specific responses as reaching out for an object near them.

9. Growth is uneven

- Asynchronous development refers to an uneven intellectual, physical, and emotional development.

10. Certain stage of Growth and development are more critical

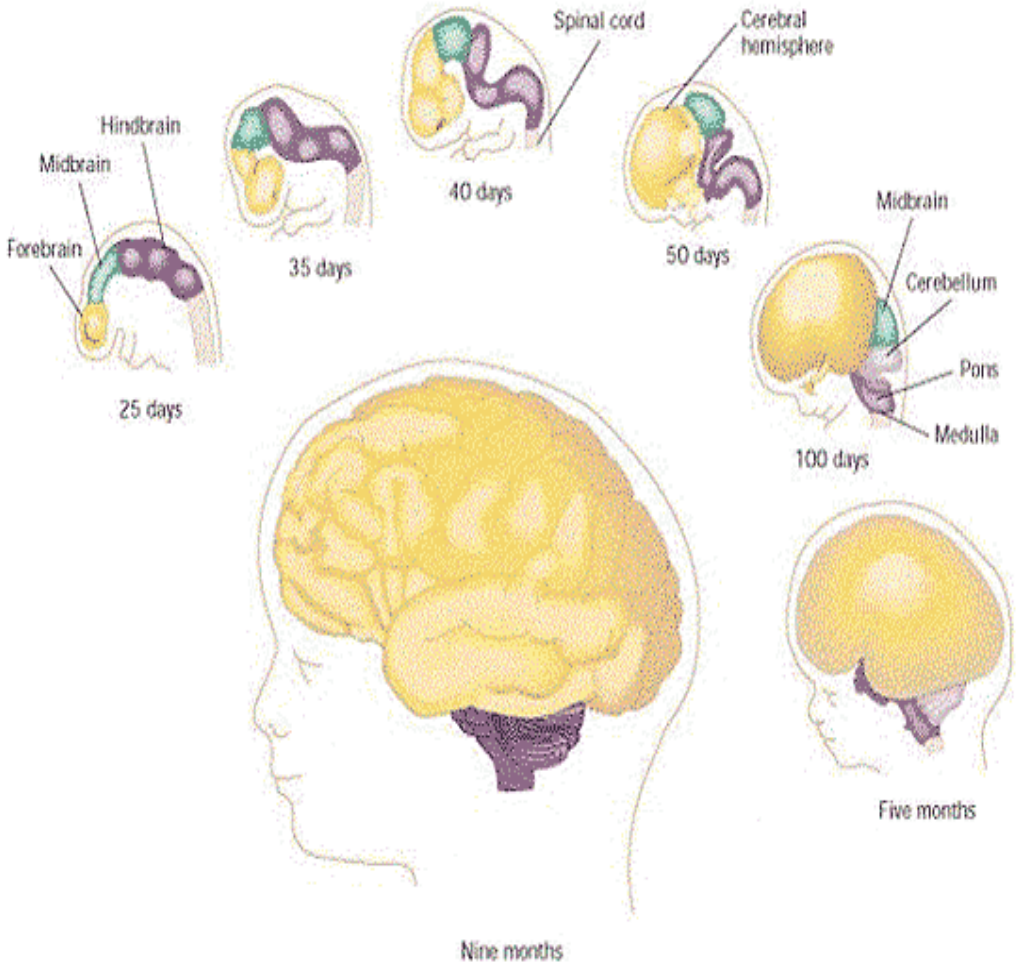
- By age five **most** children demonstrate fairly good control of pencils, crayons, and scissors.
- Gross motor accomplishments may include the ability to skip and balance on one foot.
- Physical growth slows down between five and eight years of age, while body proportions and motor skills become more refined.

11. Principle of individual difference

- Individuals differ in the rate of growth and development.
- Boys and girls have different development rates.

12. Co-ordination between increase in size and maturation

- Maturation refers to the sequential characteristic of biological growth and development.
- Changes in the brain and nervous system account largely for maturation. And help children to improve in thinking and motor skills.



14. The Principle of Developmental Pace:

- Maturity indicators do not appear at regular intervals.
- Infancy is a period of accelerated growth when maturity indicators appear in various aspects of growth.
- During the pre-school and early school years, the pace of growth slackens

15. Skills are learned by practice

FACTORS INFLUENCING GROWTH AND DEVELOPMENT

1. **Heredity** is the transmission of physical characteristics from parents to children through their genes.
   - It influences- physical appearance such as height, weight, body structure, the colour of the eye, the texture of the hair, and even intelligence and aptitudes.
2. **Environment** involves the physical surroundings and geographical conditions of the place the child lives in, as well his social environment and relationships with family and peers.
   - well-nurtured child does better than a deprived one; the environment children are constantly immersed in contributes to this.

3. **Sex:** It affects the physical growth and development of a child.
   - Boys and girls grow in different ways, especially nearing puberty.
   - Boys tend to be taller and physically stronger than girls.

4. **Exercise and Health:** children deliberately engaging in physical activities knowing it would help them grow.
   - Exercise here refers to the normal play time and sports activities which help the body gain an increase in muscular strength and put on bone mass

5. Hormones: Their timely functioning is critical for normal physical growth and development in children.

- Imbalances in the functioning of hormone-secreting glands can result in growth defects, obesity, behavioural problems and other diseases.

6. Nutrition: it's a critical factor in growth as everything the body needs to build and repair itself comes from the food we eat.

- Malnutrition can cause deficiency diseases that adversely affect the growth and development of children

7. **Familial Influence:** Whether they are raised by their parents, grandparents or foster care, they need basic love, care and courtesy to develop as healthy functional individuals.

- The most positive growth is seen when families invest time, energy and love with child through activities, like reading, playing with them and having deep meaningful conversations

9. Socio-Economic Status: Children from poorer families may not have access to educational resources and good nutrition to reach their full potential.

10. Maternal nutritional deficiencies: Mal positions, metabolic , endocrine disturbances.

- Infectious diseases(or diseases like rubella, toxoplasmosis, syphilis, herpes)
- Rh incompatibility, smoking , alcohol and intake of certain drugs.

11. Genetic factors: Actual outcome of growth= genetic potential+ environmental influences. Mutations- inherited by offspring Genetic studies make use of twin and family data

GROWTH AND DEVELOPMENT MONITORING

Assessment of growth:

- Assessment of physical growth can be done by anthropometric measurement and the study of velocity of physical growth.
- Measurement of different growth parameters is the importance nursing responsibility in child care.

WEIGHT

- Weight is one of the best criteria for assessment of growth and a good indicator of health nutritional status of child.

- Among Indian children ,weight of the full terms neonate at birth is approximately 2.5kg to3.5 kg.

- There is about 10% loss weight first week of life, which regains by 10 days of age.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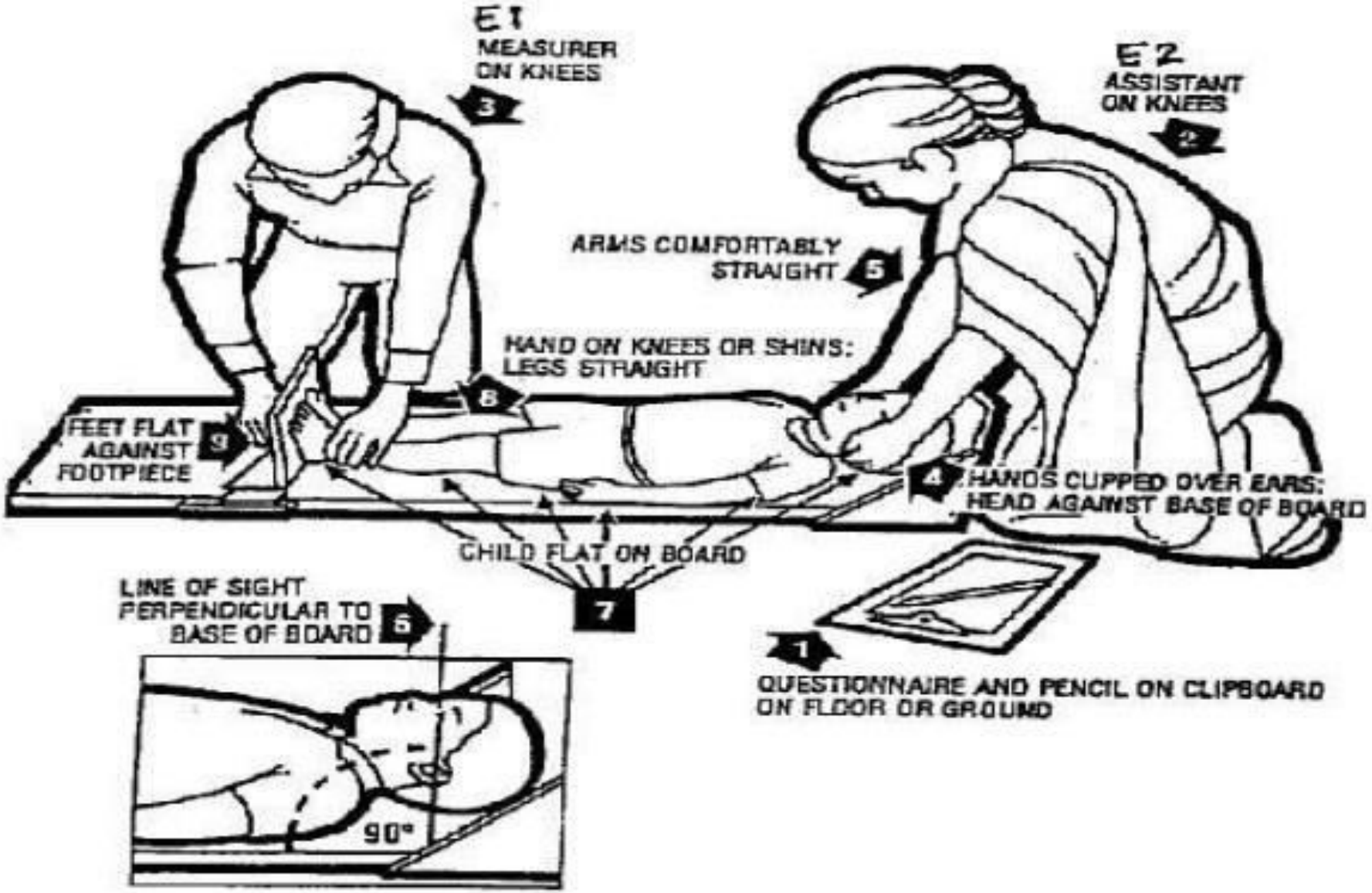
LENGTH AND HEIGHT

- Increase in height indicates skeletal growth. Yearly increments in height gradually diminished from birth to maturity.
- At birth average length of a healthy indian newborn baby is 50 cm.
- It increases to 60cm at 3 months,70cmof a 9 month and 75cm at 1 year of age.
- Then weight gain is about 25-30gmper day for 1st 3 month and 400gm/month till one year of age.


E1
MEASURER
ON KNEES
3
E2
ASSISTANT
ON KNEES
2
ARMS COMFORTABLY
STRAIGHT
5
HAND ON KNEES OR SHINS;
LEGS STRAIGHT
8
FEET FLAT
AGAINST
FOOTPIECE
9
4
HANDS CUPPED OVER EARS;
HEAD AGAINST BASE OF BOARD
CHILD FLAT ON BOARD
7
LINE OF SIGHT
PERPENDICULAR TO
BASE OF BOARD
6
90°
1
QUESTIONNAIRE AND PENCIL ON CLIPBOARD
ON FLOOR OR GROUND

- The infants double weight gain their birth weight by 5 month of age, trebled by 1 year,4th time by 2 years ,five times by3 year ,6 times by 7 year and ten times by ten year.
- Then weight increases rapidly during puberty followed by weight increases to adult size.
- In 2nd year ,there is 12cm increase,3rd year it is 9 cm, 4th year it is 7cm,and in 5th year is 6cm.
- So the child double the birth by4to4.5 years of the age afterwards there is about5cm increase in every year till onset of puberty.

BODY MASS INDEX(BMI)

- It is an important criteria which helps to assess the normal growth or its deviations.

  BMI = kg/m^2

- BMI remains content up to the age of 5 Years . If the BMI more than kg/m^2,it indicates obesity and if it is less than 15 kg/m^2 it indicates malnutrition.

BMI Categories

- - Underweight= ≤18.5
- -Normal weight=18.5-24.9
- -Over weight=25-29.9
- -Obesity=BMI of 30 or greater

HEAD CIRCUMFERENCE

- It is related to brain growth and development of intracranial volume .Average head circumference measured about 35cm at birth.
- At 3 months it is about 40cm, at6 month 43cm,at 1 year 45cm, at 2 years 48cm,at 7 year50cm and at 12 years of age it is about 52cm,almost same a adult.


Name
Length
Date
23 24 25 26 27 28 29 30 31 32 33 34 35
1 2 3

CHEST CIRCUMFERENCE

- Chest circumference or thoracic diameters is an importance parameter of growth and nutrition status.

- At birth it is 2-3cm less than head circumference at 6 to12 months of age both become equal.

- After 1st year of age, chest circumference is greater than head circumference by 2.5cm and by the age of 5 year ,it is about 5cm larger than head circumference.

GROWTH OF NEWBORN

DEFINITION:

period from birth to 28 days of life is called neonatal period and the infant in this period is termed as neonate or newborn baby.

REFLEXES:

Rooting reflex:

when the cheek or corner of the mouth is stroked, infants head should turn towards the stimulus and the mouth should open.

- Sucking reflex:

  when touching or stroking the movements begin.
- Swallowing reflex:

  The passage of food from the posterior aspect of mouth to the stomach.
- Gagging reflex:

  When the posterior pharynx is stimulated with food, there is an immediate return of undigested food.

- Extrusion:

  when substance placed on anterior portion of the tongue ,it will be expelled out.

- Blinking reflex:

  Protection of eye by rapid eye lid closure when the eyes are exposed to bright light.

- Dolls eye reflex:

  When you are showing on object to a newborn, normally eyes do not move but the head turns to the right or left side towards the object.

- Papillary reflex:

  Pupil contracts when bright light shines, it persists throughout life.

- Sneeze reflex:

  passage respond spontaneously to irritation or obstruction, persists throughout the life.

- Glabellar reflex:

  tapping briskly on glabellas(bridge of nose) cause eyes to close tightly.

- Yawn reflex:

  infant has spontaneous response to decreased oxygen by increasing amount of inspired air, persists throughout life

- Cough reflex:

  Irritation of mucous membranes of larynx or tracheobronchial tree causes coughing, persists throughout the life usually present after 1st day of birth.

- Babinski reflex:

  stroking outer sole of food upward from heel and across ball of foot to hyperextend and hallux to dorsiflex.

- Ankle reflex:

Briskly torsi flexing foot while supporting knee in partially flexed position results in 1-2 oscillating movements eventually no beats should be left.

- Tonic neck reflex:

  Turning the head quickly to one side while the baby is supine ,arm and legs on the side the head is turned towards extent ,arm and legs on the opposite side.

- Perez reflex:

  while the baby is prone on firm surface and thumb is passed along spine, defecation or urination may occur disappears by 4-6 months.

- Palmar grasp:

  when the objects are place in the palm of the newborn, it grasps the objects.

- Planter grasp:

  when objects touch the soul of the foot at the base of the toes, toes grasps around very small objects.

- Dancing or stepping reflex:

  Hold newborn in vertical position with the feet touching a flat firm surface, there will be a rapid alternating flexion and extension of the legs.

- Moro reflex:

  The newborn head is suddenly allowed to drape backward an inch, there will be symmetric abduction and extension of the arms and legs with fanning of fingers.

Reflexes of Newborn

Reflex of oral automatism

Babkin's reflex

Grasp's reflex

Robinzon's reflex

Babinski's reflex

Moro's reflex

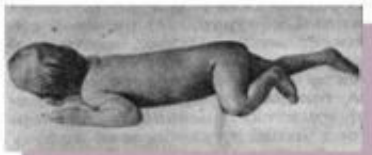
Defensive reflex

Righting reflex

Automatic reflex

Galant's reflex

Peres's reflex



Crawling reflex

Tonic reflex

GROWTH OF INFANT(1-12 MONTHS)

- **Milestones:**

1st month : social smile

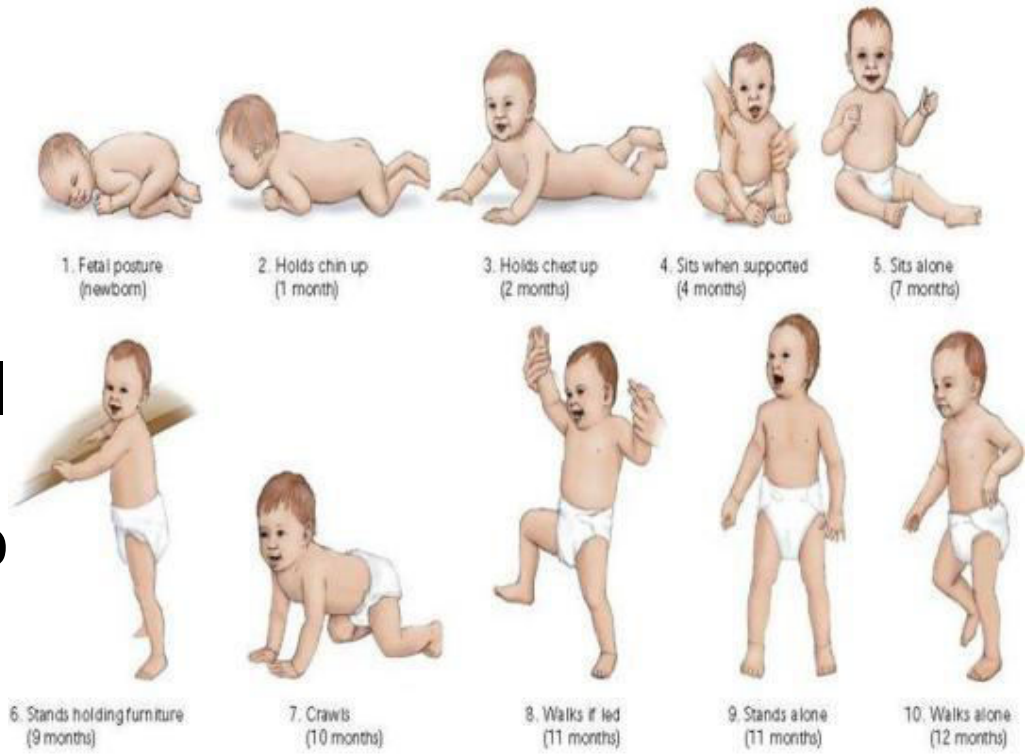
2nd month: vocalize

3rd month : head control

4th month : hand contro

5th month : turns over

6th month: sits alone



7th month : crawl

8th month: creeping

9th month: stands with support

10th month: walk with support

11th month: stands alone

12th month: walk without support

1st MONTH

- **Reflexes:**

  -primitive reflexes present and strong

  - dolls eye reflex and dance reflex fading

  -obligatory nose breathing(most infants)

Gross Motor:

-Assumes flexed position with pelvis high but not under abdomen when prone

- can turn head side to side when prone

- in sitting position, back is uniformly rounded with absence of head control.

Fine Motor:

-grasp reflex strong

-hand clenches on contact with rattle

3rd MONTH

- **Reflexes**:

  -primitive reflexes fading

- **Gross motor:**

  -able to hold head more erect when sitting.

  -assumes symmetric body positioning

  -when held in standing position, able to hear slight fraction of weight on legs.

- **Fine Motor:**

  -actively holds rattle but will not reach for it.

  -grasp reflex absent

  -Pulls at blankets and cloths

4th MONTH

- **Reflexes:**

  -drooling begins

  -Moro, tonic neck and rooting reflexes have disappears.

- **Gross Motor:**

-has almost no head lag when pulled to sitting position.

-balances head well in sitting position.

- rolls from back to side

- able to sit erect if propped up.

- **Fine Motor:**

  - inspects and plays with hands ,pulls clothing or blanket over face in play

  - tries to reach objects with both hands

  -play with rattle placed in hand, shakes it but cannot pick it up if dropped.

  -can carry objects to mouth

5th MONTH

- **PHYSICAL:**

  -Beginning signs of tooth eruption

  -birth weight doubles

- **Gross Motor:**

  -able to sit for longer periods when back is well supported back straight.

  -when sitting, able to hold head erect and steady.

  -can turn over from abdomen to back

  -when supine, pulls feet to mouth.

- **<u>Fine Motor:</u>**

  -able to grasp objects voluntarily

  -uses palmer grasp approach

  -plays with toes

  -takes objects directly to mouth

  -holds one cube while regarding as second one.

6th MONTH

- **Physical:**

  -growth rate may begin to decline

  -weight gain of 90 to 150 gm weekly for next 6 month

  -height gain of 1.25cm monthly for next 6 months

  -teething may begin with eruption of two lower central incisors

  -chewing and biting may occur.

- **Gross Motor:**

  -when prone, can lift chest and upper abdomen off surface ,bearing weight on hands

  -sits in high chair with back straight

  -when held in standing position, bears almost all of weight

- **Fine Motor:**

  - re secure a dropped objects
  - grasps and manipulates small objects
  - holds bottle
  - grasps feet and pulls to mouth.

7th MONTH

- **Physical:**

  -eruption of upper central incisors

- **Gross motor:**

  - Sits, learning forward on both hands

  -sits erect momentarily

  -bears full weight on feet

  -when held in standing position, bounces actively.

- **Fine Motor:**

-transfers objects from one hand to another

- holds two cubes more than momentarily

- bangs cubes on table

8th MONTH

- **Physical:**

  -parachute reflex appears

- **Fine motor:**

  - sits steadily un supported

  - may stand by holding a furniture

- **Gross Motor:**

  -retains two cubes while regarding 3rd cube

  -rings bell purposely

  -reaches persistently for toys out of reach

9th MONTH

- **Physical:**

  -eruption of upper lateral incisor may begin

- **Fine Motor**:

  -creeps on hands and knees

  -pulls self to standing position and holds a furniture

  -recovers balance when leaning forward but cannot do so when leaning sideways.

- **Gross Motor:**

  -grasp 3 rd cube

  -preference for use of dominant hand now evident

10th MONTH

- **Reflexes:**

  -labyrinth-righting reflex is strongest when infants is in prone or supine position, is able to raise hand.

- **Gross Motor:**

  -can change from prone to sitting position

  -recovers balance easily while sitting

  - while standing lifts one foot to take a step.

- **Fine Motor:**

  -crude release of an object begins

  -grasps bell by handle.

11th MONTH

- **Physical:**
  - eruption of lower lateral incisor may begin
- **Gross Motor:**
  - when sitting, pivots to reach toward back to pickup an object.
- **Fine Motor:**
  - explores objects more thoroughly
  - has neat pincer grasp
  - puts one object after another in to a container

12th MONTH

- **Physical:**

  -birth weight trebled

  -birth length increased by 50%

  -anterior fontanel's almost closed

  -landau reflex fading

  -lumbar curve develops during walking.

- **Gross motor:**

  -can sit down from standing position without help.

- **Fine Motor:**

  -releases cube in cup

  -tries to insert a pellet into a narrow necked bottle but fails.

- **Language/ speech development:**

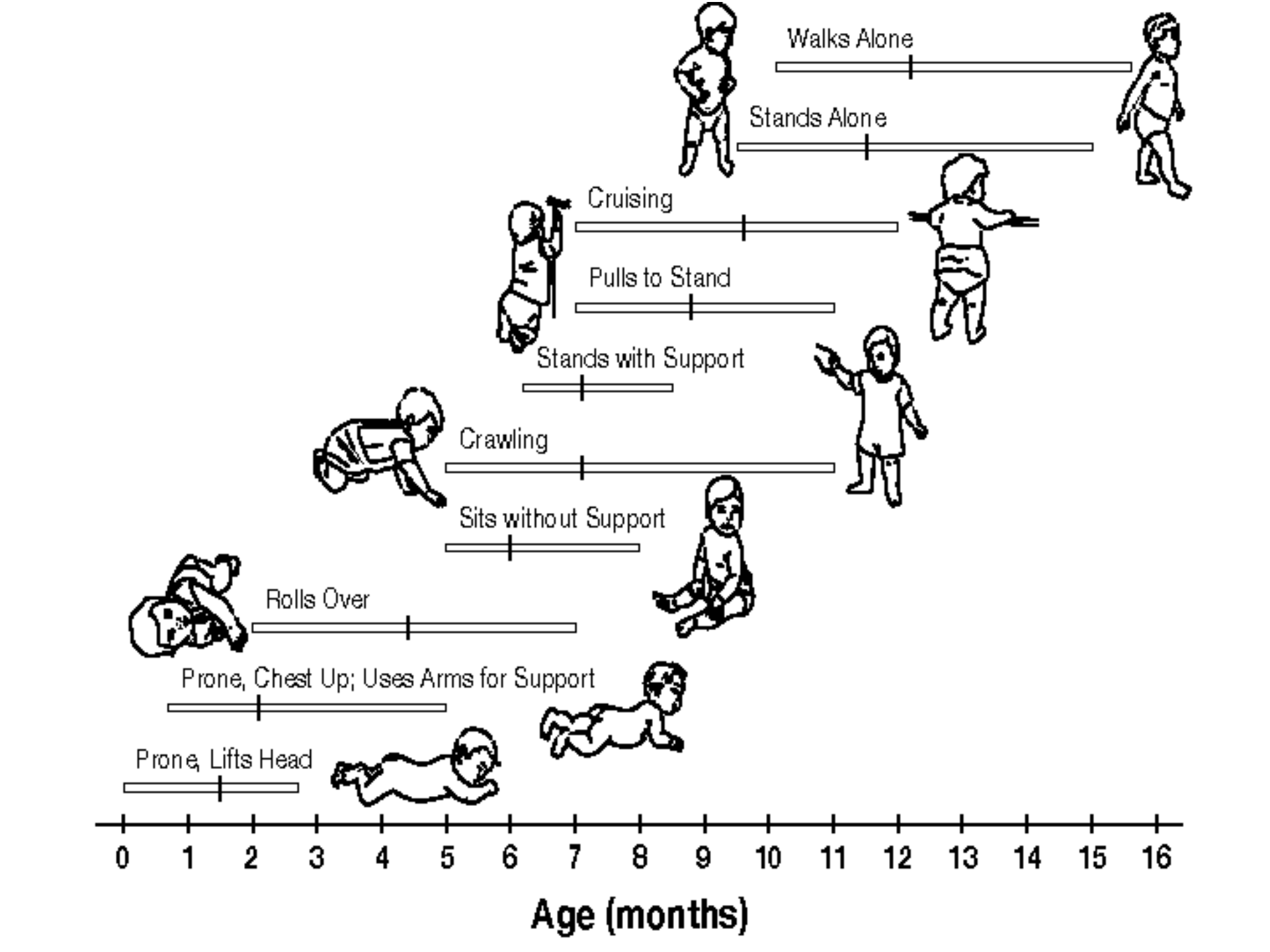
  Receptive language:

  - responds to human voices

  Expressive language:

  - cries when hungry or un comfortable

  - 6-8 words at 1 year


Walks Alone
Stands Alone
Cruising
Pulls to Stand
Stands with Support
Crawling
Sits without Support
Rolls Over
Prone, Chest Up; Uses Arms for Support
Prone, Lifts Head
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
Age (months)

Hearing

- 3-4 months : child turns his head towards the source of sound.
- 5-6 months : child turns the head to one side and then downward if a sound is made below the level of ears.
- 10 month : child directly looks at the source of diagonally.

Vision

- 1st month – baby can fixate on his mother as she talks to him.
- 3-4 month : child can fixate intently on an object shown to him (grasping with eye).
- 6 weeks : binocular vision begins and is well established by 4 months .
- 6 months : child adjusts his position to follow object of interest.
- 1 year : follow rapidly moving object.

Psychosocial **(Erick Erickson)**

[Sense of trust Vs Mistrust]

Trust – Firm believing the reliability, truth or ability

Mistrust – Lack of trust or confidence; distrust.

Complete dependence on care giver.

Intellectual development (Jean Piaget)

[Sensory motor] (0-2 years)

Stimuli are recognized, absorbed and incorporated into existing action

Psychosexual (freud)

[Oral stage] – This is the first social and sexual stage of an infant's development, during which the infant focuses on satisfying hunger. This is satisfied by chewing, sucking and biting.

Spiritual development (fowler)

[Undifferentiated] – Feeling of trust, warmth and security from the foundation of the later development of faith.

Moral development (Kohlberg)

[Pre-conventional morality stage] (0-2 years)
Unable to understand good or bad.
The good is what I like and want.

Language/speech development:

Receptive language:

- Responds to human voices.

Expressive language:

- Cries when hungry or uncomfortable.
- 6-8 words at one words.

GROWTH OF TODDLER(1-3 YEARS)

1 Year

Gross motor:

- walks without help
- creeps upstairs
- runs clumsily
- falls often

Fine Motor:

- builds tower of 2 cubes
- holds 2 cubes in one hand
- scribbles spontaneously
- uses cup well but often rotates spoon before it

.

2 YEARS

- **Physical development:**

  -hand circumference49-50cm

  -usual weight gain of 1.8-2.7kg/year

  -usual height gain of 10 to 12.5 cm/year

  -primary dentition of 16 teeth.

- **Gross motor:**

  -picks up object without falling

  -kicks ball forward without over balancing.

- **Fine motor:**

  -builds tower of 6 or 7 cubes

  -aligns two or more cubes like a train

  -turns door knob

  -able to remember and imitate some actions and gestures.

3 years

- **Physical development**:

  -birth weight quadrupled

  -may have day time bladder control

- **Gross motor:**

  -jumps with both feet

  -stands on one foot momentarily

  -takes a few steps on tiptoe

- **Fine motor:**

-builds tower of 8 cubes

-good hand finger co ordination

-in drawing ,imitates vertical and horizontal strokes.

- **Language/speech development:**

1 year(6 to 8 words)

2nd year(300 words)

3 rd year (900 words)

Psycho social (Erick Erickson)

[Autonomy Vs Shame]

Autonomy – The right of a person, an organization, r

Shame – The unpleasant feeling of guilt and embarrassment when you are wrong.

Psycho sexual (Freud)

[Anal stage] – Obtain pleasure from the feeling of a distended bladder, from masses of feaces in the rectum and from release of content from those organs

Spiritual development (Fowler)

[Intuitive projective] – Imitates religious behavior such as bowing the head in prayer, but does not understand the meaning.

Intellectual development(jean Piaget)

- Preoperational (2 to 7 years).
- Pre-conceptional phase (2 to 4 years).
- Beginning of mental representation of events and differentiates past and present.

Moral development (Kohl berg)

[Pre conventional morality]

Birth to 2yrs – The good is what the child like and wants.

2 to 3yrs – Child is punished for doing something, its wrong; if not punished it must be right.

Language/Speech development

- 1 year - 6 to 8 words
- 2 year - 300 words
- 3 year - 900 words

GROWTH OF PRESCHOLER(3-5 YEARS)

- **3 years**

Gross motor:

- rides tricycle

-jumps of bottom steps

-broad jumps

-may turn to dance but balance may not be adequate.

- **Fine motor**:

-builds tower of 9-10 cubes

-builds bridge with 3 cubes

-in drawing copies a circle imitates a cross.

4 Years

- **Gross motor:**

  -skips and hops on one foot

  -catches ball

  -throws ball over head

  - walks down stairs with alternate footing

- **Fine motor:**

  -uses scissors successfully to cut out picture following

  -can lace shoes but not able to tie

5 years

- **Gross motor:**

  -skips and hops on alternate feet

  -jumps rope

  -walks backward with heels to toe

  -balance on alternate feet with eyes closed

- **Fine motor:**

  -ties shoelaces

  -uses scissors ,simple tools

  -in drawing, copies a diamond and triangle

Psychosocial (Erick Erickson)

[Sense of initiative Vs Guilt]

Initiative – An introductory act or step;

Guilt – A feeling of responsibility

Psycho sexual (Freud)

[Phallic stage]

Oedipus complex – Boys desire their mothers

Electra complex – Girls want their fathers

Spiritual development (Fowler)

[Intuitive projective]

Imitates religious behavior such as bowing the head in prayer, but does not understand the meaning.

Intellectual development(Jean Piaget)

[Intuitive phase] (4-7yrs)

Children can repeat the event in play that occurred many hours or day before.

[Pre conventional morality] – Strictly for the purpose of self interest that avoid punishment and to have favors turned.

Language/speech development

- 3 years-900 words
- 4 years-1500 words
- 5 years -2100 words

  play(new hall) co-operative play

GROWTH OF SCHOOLER(6-12 YEARS)

6 Years:

Motor changes:

-central mandible incisor erupt

-loses first tooth

-likes to draw, print color

Mental changes:

-develops concepts of numbers

-can count 13 rupees

-knows right and left hands

-attends first grade

-define common objects

7 years

- **Motor changes** :

  -maxillary central incisors and lateral mandible incisors erupt.

  -repeats performance to master them

  -more cautious in approaches to new performances

- **Mental changes:**

  -can copy a diagram

  -repeats 3 numbers backward

  - attends 2nd grade

8 years

- **Motor effects:**

  -movement fluid ,often graceful and poised

  -always on the go, jump, chase, skips

- **Mental effects:**

  -gives similarities and differences between two things from memory

  -makes change out of a quarter

  -attends third grade

  -reads more, may plan to wake up early just to read.

9 years

- **<u>Motor effects:</u>**

  -dresses self completely

  -hard to quite down after recess

  -more limber, bones grow faster than ligaments.

- **<u>Mental effects;</u>**

  -reads class books

  -more aware of time

  -attends 4th grade

  -produces simple paintings and drawings.

10 years

- **<u>Motor effects:</u>**

  -posture is more similar to an adult

  -perform tricks on bicycle-races participate in sports.

- **<u>Mental effects:</u>**

  - writes brief stories

  - attends 5th grade

11 years

- **Motor effects:**

  -will over come lordosis

  -dresses neatly

  -likely to over do

- **Mental effects:**

  -uses telephone for practical purposes

  -attends 6th grade

  -knows right and wrong

12 years

- **Motor effects:**
- **Girls;**

- pubescent changes may begin to appear, body lines soften and round out

- **Boys:**

- slow growth in height and rapid weight gain, may become obese in this period.

- **<u>Mental effects:</u>**

  -responds to magazine , radio or other advertising

  -attends 7th grade.

- language/speech development:

  20,000-30,000 words.

- play (competitive play)

  girls(cooking ,grooming ,teaching)

  boys(kites ,cycling team sports

Psychosocial development(Erick Erickson)

[Sense of industry Vs Inferiority]

Industry –involved in providing a service.

Inferiority – A state of feeling less important.

Psycho sexual (Freud)

[Latent phase]

- Associate with same sex
- Peers ignore the opposite sex

Spiritual development (Fowler)

[mythical literal faith]

- Follows the rituals practiced in the family/society

Intellectual development (Jean Piaget)

[Concrete operational stage]

- Able to understand, read and write,
- Development problem solving abilities,

Language/speech development:

20,000 – 30,000 words.

Play [Competitive play]

Girls:

- Cooking
- Grooming
- Teaching .

Boys:

- Kites
- Cycling
- Team sports.

GROWTH OF ADOLESCENCE(13-18 YRS)

- **13 Years:**

  Reproductive organ development:

  male:

  -prostate begins functioning

  -penis begins to lengthen

  female:

  -internal and external organs continue growing.

Cognitive development:

- adolescent learn to think new ways to understand complex ideas

14 years

- **Reproductive organ development**
- **Male**

  -pubic hair grows

  -growth spurt may begin
- **Female**

  -under arm hair growth

  -onset of menstruation.

Cognitive development:

- mind has great ability to acquire and utilize knowledge
- members of the peer group often try to act.

15 years

- **Reproductive organ development:**

male:

- rapid growth of the penis
- testes color deepens

female:

-underpants may be wet at times with a clear mucous.

Cognitive development:

-imaginative thinking develops

- the peer group expands to include romantic friendships.

16 years

- **<u>Reproductive organ development:</u>**

  male:

  -under arm hair

  -voice change begins

  female:

  -most of the growth spurt complete

<u>Cognitive development:</u>

-they learn selectively

-they have better memory

17 years

- **<u>Reproductive organ development:</u>**

  male:

  - average age that sperm matures
  - majority of the growth spurt complete

  female:

  -acne

  -voice deepens.

Cognitive development:

-problem solving skills gets improved

- learn to express and receive intimate or sexual advances

18 years

- **<u>Reproductive organ development:</u>**

male:

- chest and shoulders fill out
- facial body hair becomes heavier
- acne

female:

-full height achieved

<u>Cognitive development:</u>

-able to think in logical way

-able to sound judgment

- **Language/speech development:**

  continuous to learn new concepts

- **play: social play**
  - sports
  - parties
  - watching television
  - computer game

Psycho sexual (Freud)

[Genital stage] – Masturbation and sexual fantasies are common.

Spiritual development (Fowler)

[Conventional faith]

Personal and social values evolved to support their identity to explore religious affiliation.

Intellectual development(Jean Piaget)

[Formal operational stage]

Thinking is oriented to things and events that they can observe directly.

Moral development (Kohl berg)

[post conventional stage]

Able to differentiate from right and wrong.

Language/speech development:

Continuous to learn new concepts.

Play

[Social play]

- Sports
- Parties
- Telephone conversations
- Watching TV
- Computer game

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THANK YOU