

CHAPTER-II

SOME SPECIFIC CHARACTERISTICS OF CHILDHOOD

2.1 INTRODUCTION :

In the previous chapter, you have studied about the growth and development of a child in mother's womb. In first year course, you have learnt about what is growth and development, its principles and different stages. In this lesson, growth and development of children in various aspects have been described. If you observe a child closely, you will notice various stages of growth and development.

After reading this chapter, you will be able to understand the following -

- Physical development of a Child from birth to three years, changes in height and weight, body proportions, motor development etc.

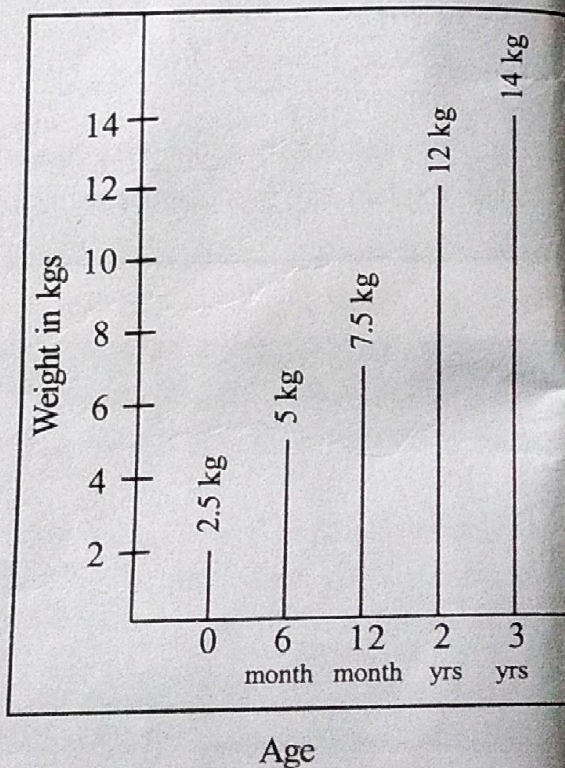
- Social and emotional development.
- Cognitive development and language development upto three years.

2.2. PHYSICAL DEVELOPMENT

Physical development means changes in height and weight along with changes in size and shape of the child.

Weight of the child : Do you know the weight of a new born infant at birth? The average weight of an Indian child at

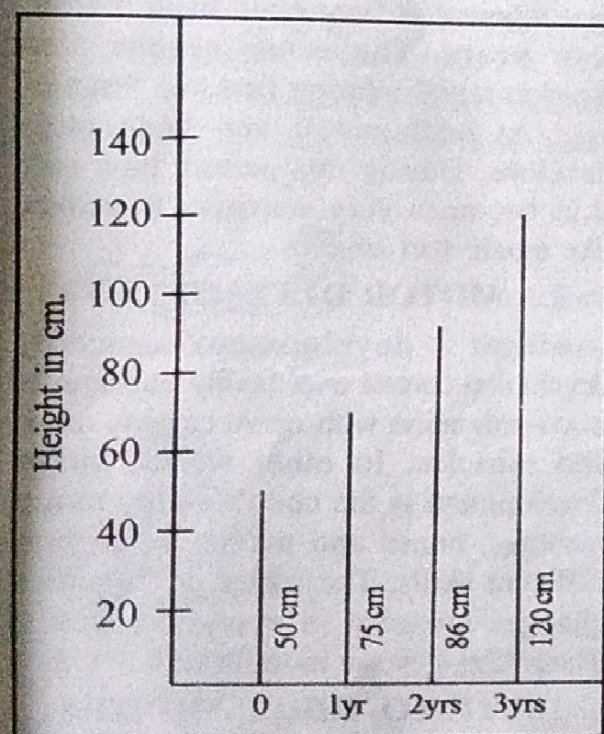
birth is 2.5 kgs. This initial weight doubles i.e. to about 5 kgs. by the time the child is 6 months old. With one year, the birth weight increases three times more than the initial weight. The child weighs about 12 kgs and 14 kgs at two and three years respectively. Soon after that, the rate of increment in weight becomes slow. The following figure shows the changes of weight of a child from birth to three years.



SOME SPECIFIC CHARACTERISTICS OF CHILDHOOD

7

Height of the child : The height of a newborn infant at birth is 50 cm. After birth to two years, height increase rapidly. At 4 months, the baby measures 58 cms to 61 cms, at 8 months. 66 cm to 71 cm and an one year old baby is 20-25 cm more than his height at birth, i.e. at 1 year the baby measures 81-86 cm and at 3 years, the height of a child is about 100-120 cm. After that, there is a slow gain in height. Generally, the rate of height increment is more in boys than girls. The following figure shows the changes of height of a child from birth to 3 years of age.



Age

Body size : Body size of a new born infant is controlled by two factors. They are heredity and environment. For proper body size, a growth hormone, secreted by pituitary gland is needed. For the normal physical growth, this hormone must be produced in right amounts at right time. If too little is produced, the rate of growth becomes slow. Excess Production will result in over growth. Because of this, Some children are thin and some are fat. The production of this growth hormone not only depends on pituitary gland alone, but also upon the thyroid gland and reproductive primary organs. Oestrogen in females and androgen in males stimulates the deposition of calcium in bones, which in turn helps the bone to become strong and hard.

Body size also depends on the condition of pre-natal period and post-natal environment. Malnutrition, excessive smoking, maternal stress, unhygienic living conditions etc. also affects the body size of the infant and children.

Body Proportions: The body proportion of a new born infant is different from an adolescent boy / girl or from an adult. The size of the head of a new born infant is relatively larger than the arms, legs and bones. At birth, the head is about 20% of the total body length. The lower portion of the head is thin and small, arms and legs are also thin, short and small. The nose is small

and flat, eyes are comparatively bigger in size. Have you ever seen a new born baby? If so, you will notice that-how body size and proportion changes from birth to two years of a child and proceeds toward normal size and shape. From birth to 15 months, the head size grow faster and later it slows down. The following figure shows body proportions of a child from two months (foetal) to two years.

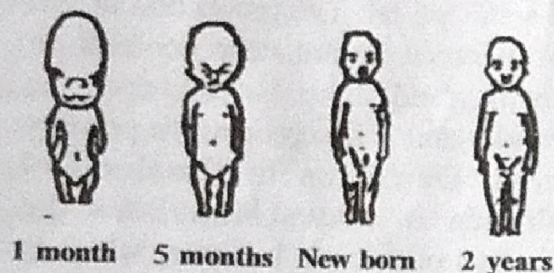


Fig- 1

Body Proportion of Children from
1 month (foetal) to two years.

Along with the changes in body proportion, bone formation in a child begins during pre-natal period. During this period and after child birth, bones become smooth, but gradually, as age advances, bones become harder. There is also growth of muscle tissues. The tissues of a new born baby is soft and smooth. With advancement of age, the tissues becomes hard, strong and firm.

The growth of teeth is one of the most important aspect of physical growth and development. During pre-natal period, the teeth begins to form in the jaw and after 6 months of birth, the first two

lower teeth appears. After some days, another two teeth appears at the middle portion of the upper jaw. By the time the child is one year, 4-6 teeth appear. At two to three years, this number increases to 16-20. These teeth are known as 'temporary teeth' or 'milk teeth'. As the child is 5-6 years old, temporary teeth are replaced by new teeth, which are known as 'permanent teeth'. The primary teeth consists of 32-36 teeth.

The development of brain and nerve tissues in various parts of the body takes place parallelly with physical growth and development. Brain is an important part of nervous system and its growth and development is very rapid from birth to four years. The sense organs also develop rapidly during first two years of age. At birth smell and taste buds develops. During this period, their soft skin becomes very sensitive to senses like touch, feel etc..

2.3. MOTOR DEVELOPMENT

Motor development means, developing control over bodily movements in co-ordination with nerve centres, nerve and muscles. In other words, motor development is the child's ability to use muscles, bones and nerves to perform different skills. The motor development changes are seen in every 3-4 weeks. These changes are as follows-

BIRTH TO THREE MONTHS (0-3) MONTHS)

Motor development begins when the

baby is in mother's womb. During this period, the rate of development is slow. When the foetus is 2 months old, physical movement takes place and from 3 months onwards, these movement increases. From 6 to 8 months, foetal movements are almost similar to that of a new born infant. At this stage, the pregnant mother can feel certain actions of the foetus like shaking, kicking etc.

Soon after birth, the infant becomes helpless. After one week, he can move his hands and feet. The child starts holding his head from the age of one month and can turn his head while lying on bed. He is also able to hold his neck. At two months, the child can raise his head and chest while lying on the abdomen. At 3 months, the child tries to reach out to the object held near him.

Due to inadequate focussing of vision, he cannot hold the object. At birth, the neck of an infant is hardly visible. The neck is visible from 3 months onwards. The children at this age can respond to smile of other person. As age advances, the colour of the eyes changes. The child can raise his hands and feet at this age.

FOUR TO SIX MONTHS (4-6 MONTHS)

Children at 4 months gain control over different tissues in neck, chest and waist region. Therefore they are able to sit for sometime with the help of pillow, cushion etc. At 5 months, they have complete control over head and can grasp small objects like rattle, toys etc. At this age, they cannot use their fingers, instead they use the entire hand.



1 month- Chin up



2months- Chest up



3 months- reaches the object but cannot hold



4 months
Can sit with support



5 months
Can grasp object properly



6 months- Can sit easily in
Chair and grasps dangling objects

Figure- 2

Motor development of children from birth to 2 years

Six months old children can grasp mobile or hanging objects. They can even sit independently in a chair. They learn to focus on the colourful balloons or any objects hanging over their cots. They can hold bottle or cup for drinking water.

SEVEN TO NINE MONTHS (7 to 9 months)

At 7 months, children can sit independently without any help. They are



7 months
Can sit alone



8 months
Crawls on abdomen



9 months
Can stand by holding furniture

Figure- 3

Motor development of Children from 7-9 months

capable of shifting from lying position to sitting and back again to lying. At 8 months, the child starts crawling on his abdomen. The child learns to put his weight on hands and use legs to provide the push needed to move forward. Nine

TEN TO TWELVE MONTHS : (10-12 MONTHS)

At 10 months, the child is able to crawl better on his hands and knees. A 11 months old child learns to stand and can take one to two steps by holding the



10 months
Crawls on hand
and Knees



10 months
Can walk if both
hands are held



11 months
Stand alone



12 months
walks when only
one hand is held.

Figure- 4

Motor development of children from 10-12 months

hands of parents, siblings or other people.

ONE TO TWO YEARS (1-2 years)

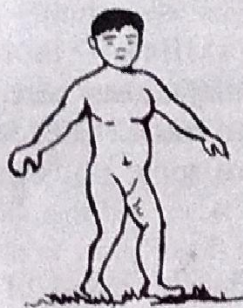
After one year, the child is able to sit and stand independently. At this period, the child can move here and there, but cannot walk on stairs. At first he tries to crawl up the steps. When the child is 14 to 15 months old, he tries to walk in coordination with the hand and feet movements and becomes independent. He tries to go up the stairs by holding the railings. At 16-18 months, the child goes up the stairs in standing position. When the child is 2 years old, he can climb stairs in a standing position without any hesitation. Two years old child can even walk forward, backward and can stand on one leg for short duration. Some children can ride tricycles at the

age of two years with the help of adults.

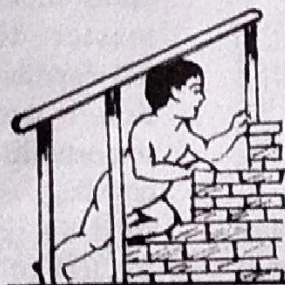
TWO TO THREE YEARS (2-3 years)

Most of the children at this age shows improvement in motor development due to physical and muscular development. Two years old child can run and play well. Generally small boys love to play football and cricket and girls like to jump, run and skip. The children can jump up with both the feet. They acquire the skills of grasping any objects with their hands. A three years old child can balance on toes to reach any object kept at a height. Have you reached out anything kept at a height by your parents?

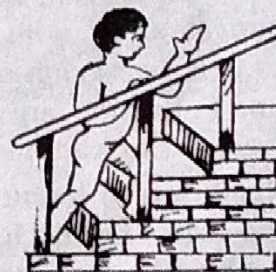
At the age of 2-3 years, the child is able to put on his clothes, can zip up his pant. He can eat at a table, learns to control bowel movements and can go to the bathroom alone. Therefore, children



13 months
walks alone



18 months
Can go up and down
the stairs slowly.



2 years
Can climb stairs in a
standing position

Figure- 5
Motor development of Children from 1.5 yrs to 2 years



can run and

Motor development of

at this age should be encouraged to develop good habits and to play independently.

ASPECTS IN