

**Course Name - Bachelor of Physical Education**

**Year – IInd (Part-1)**

**Paper Name - Psychology with Special Reference to Physical Education**

**Topic Name - Growth & Development**

**Topic No. - Sec - B (6)**

**Paper No. - IInd**

**Lecture No. - 8**

### **Lecture Title**

## **Growth and Development**

### **Script**

Welcome to the Bachelor course of physical education. Today we will discuss about growth and development.

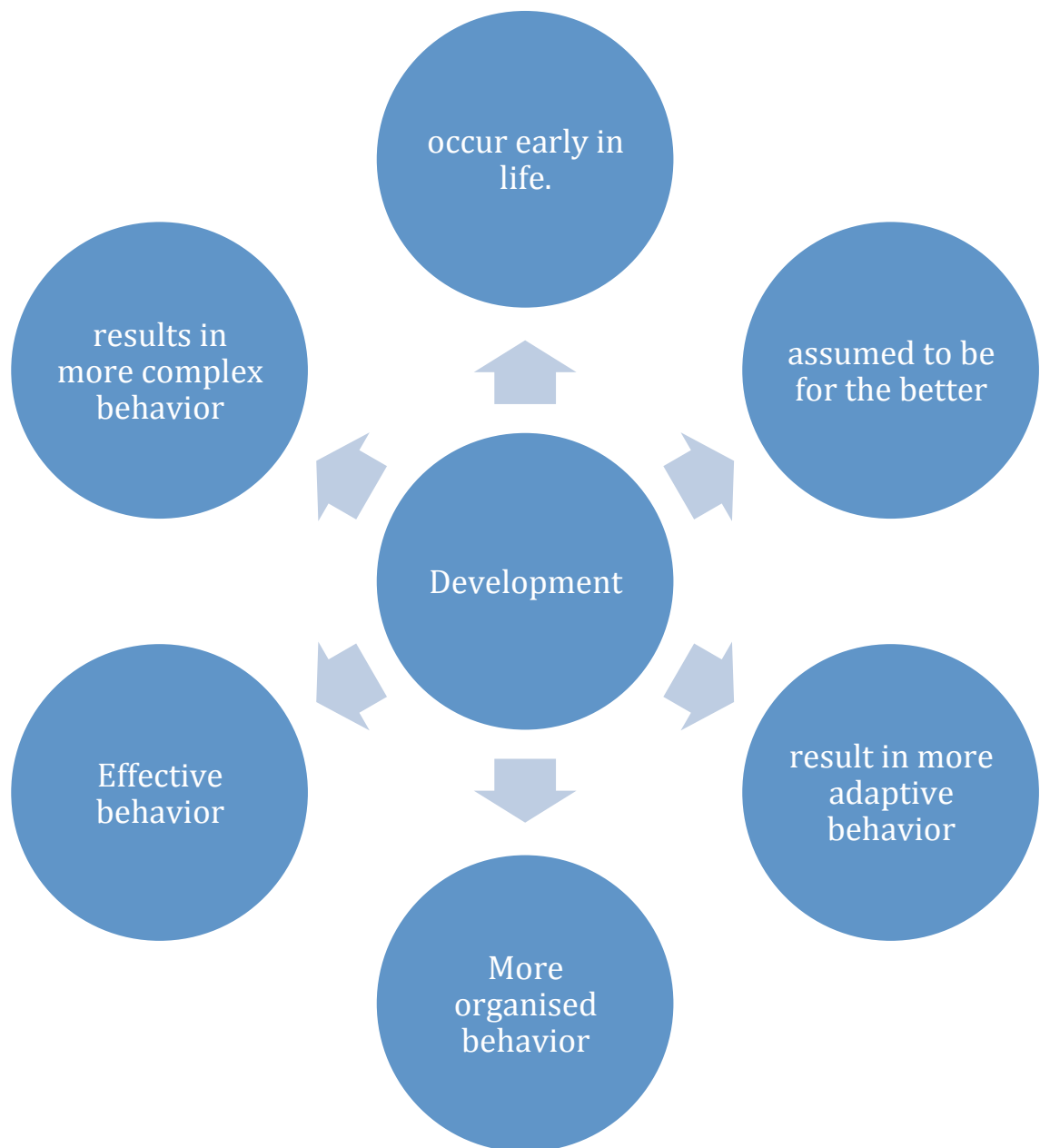
Growth and Development is a process of concern for parents, teachers and coaches. With the proper knowledge of Growth and Development, Parents, teachers and coaches can predict what to expect and when to expect. They can anticipate the various changes which the growing and developing individual are likely to manifest.

First we will discuss what growth is

Growth refers to an increase in size, length, height and weight. Changes of Physical nature which can be quantified come into the domain of growth. It is caused by enlargement of cells, muscles, elongation of skeleton and increase in general volume.

The term development in the most general psychological sense refers to certain changes that occur in humans and animals between conception and death. Term development is not applied to all changes but it's applicable to those changes which appear in orderly manner and remain for a reasonably long period of time.

Psychologists make a value judgment in determining 'which changes qualify as development'. According to them those changes are called development



- that occur early in life.
- assumed to be for the better
- to result in behavior that is more
  - Adaptive
  - more organized
  - more effective

➤ more complex

Mostly these two terms growth and development are used inter-changeably. Both relate to the measurement of changes taking place in individual after conception till death.

Life starts from a fertilized egg and results into full-fledged human adult. During this transforming process individual undergoes a series of changes brought about by the process of growth and development in various aspects. Important of which are

- Physical
- Mental
- Social
- Emotional

Therefore in a wider sense both the terms growth and development can be used for any change brought about by maturation and learning.

Although growth and development are used inter-changeably but these two differ in many ways. We will discuss how growth and development differ.

- The term growth is used in purely physical sense. It generally refers to an increase in size, length, height and weight. Changes in the quantitative aspects come under the domain of growth Whereas DEVELOPMENT implies overall changes in shape, form or structure resulting in improved working or functioning. It indicates the changes in the quality or character rather than of quantitative aspects.
- Growth is one of the part of development process. In strict sense development in its quantitative aspect is termed as growth. On the other hand, Development is a wider and comprehensive term. It refers to overall changes in the individual and Growth is one its parts.

- Growth may be referred to describe the changes which take place in particular aspects of the body and behavior of an organism whereas Development describes the changes in the organism as a whole and does not list the changes in parts.
- Growth does not continue throughout life. It stops when maturity has been attained. On the other hand, Development is a continuous process. It goes from womb to tomb. It does not end with the attainment of maturity. The changes, however small they may be, continue throughout the life span of an individual.
- The changes produced by growth can be measured. They can be quantified and are observable in nature whereas Development, as said earlier, implies improvement in functioning and behavior and hence brings qualitative changes which are difficult to be measured directly. They are assessed through keen observation in behavioral situations.
- Growth may or may not bring development. A child may grow (in terms of weight) by becoming fat but this growth may not bring any functional improvement (qualitative change) or development. On the other hand, Development is also possible without growth as we see in the case of some children that they do not gain in terms of height, weight or size but they do experience functional improvement or development in physical, social, emotional or intellectual aspects.

As discussed, when observed in minute details, both growth and development show differentiation. But in a wider and practical sense both terms are used to denote changes in the organism's physical aspect and functioning. These changes cover

- Physical
- Emotional
- Intellectual

- Social aspects

And these changes go hand in hand.

These two terms are used collectively covering and explaining all the changes, functional as well as constitutional.

Changes brought by the process of growth and development in the individual follow certain principles known as principles of growth and development. Now we will discuss the important principles of growth and development.



1. **Principle of Continuity:** Development follows the principle of continuity. Development starts from womb and continues till death. Individual starts his life from a tiny cell (fertilized egg) and develops continuously throughout his lifespan.

**Next Principle is**

2. **Development follows of Pattern.** All human beings follow a definite pattern i.e.

- Development follows cephalo-caudal sequence which means development proceeds from head to tail (downwards).
- Development follows proximo-distal sequence which means spinal cord develops first and it proceeds outward.

3. **The rate of Growth and Development is not uniform** – Although development follows continuity yet the rate is not uniform at all the times and for all parts of body like

- It is rapid in early years of life.
- Slows down in later years of infancy.
- Brain attains its maximum size around the age of six or eight
- Reproductive organs develop with the onset of puberty.
- Creativity develops rapidly in childhood and reaches the peak in Adolescence.

Next is the

(4) **Principle of Individual difference:** It states that there exist wide Individual differences in growth and development in various dimensions each individual has unique mode of growth and development.

(5) **Development proceeds from General to specifics:** Which means the responses of an individual are of general nature before they become specific. For e.g. a new born baby when cries, his whole body is involved but gradually when child grows and develops, crying is limited to eyes and vocal cords

- Learns general words before he learns specific words.
- Learns general body movements before he learns specific movements.

Next Principle is the

(6) **Principal of Integration:** It is also observed that process of development is a two way process. It is from whole to parts and from parts to the whole. Development of individual integrates both the wholes and the parts. This integration brings about entire development process.

(7) **Principal of Interrelation:** Growth and Development in various dimensions is interrelated and interdependent. Growth and Development in one aspect affects Growth and Development in other aspects. For e.g. an individual with above average intelligence generally manifest above average physical and social development.

Next is

(9) **Development is predictable:** Growth and Development can be predicted because the rate at which the individual is growing and developing helps us to predict the range within which the individual's mature development is going to fall. On the basis of present mental status of the individual, we can predict the ultimate mental development.

(10) **Development is spiral not linear:** Rate of growth and development is constant and steady. Individual does not proceed straightly on the path of development. He advances in a particular period but takes rest in the following period which helps to consolidate his development. He turns back and moves forward again like a spiral.

(11) **Growth and Development is a joint product of heredity and environment:** An individual is the product of heredity and environment. Both (Heredity and Environment) play their important role in the process of Growth and development.

Well students principles discussed so far give a comprehensive view about the process of Growth and Development. These principles have some educational implications. Now, We will discuss the educational implications of these principles:

- Knowledge of the principle of growth and development, which states that Heredity and environment both play their significant role in the process of Growth and Development helps us all to pay proper attention to environmental conditions of children to ensure proper Growth and Development and also keep in mind his heredity potentialities while deciding the course of action.
- Next we will take up the principle of Individual differences: This principle makes us aware that there are wide individual differences among children with respect to their rate of growth and development. Therefore we as parents, teachers, coaches and mentors should pay attention to their individual pattern and growth rate while planning a course for their education and training and helping them to set their goals and levels of aspiration.
- Knowledge of Principles of Growth and Development with help us to know what to expect and when to expect from an individual with respect to his Physical, Mental, Social development at different stages of development. The appropriate knowledge of trend of Growth and Development of an individual is very helpful to us (as Parents, Teacher, Coaches and Mentors) so that we do not overestimate or under estimate future competency of an individual.
- This knowledge (Knowledge of Principles of Growth and Development) helps us to locate the degree and direction of Abnormality in an individual and guides to take remedial steps.



- The knowledge of the principle that development starts from whole to parts and then from parts to whole helps us to plan learning procedure and methods accordingly.
- The principle of interrelation and interdependence helps us to plan for harmonious Growth and Development of the personality.

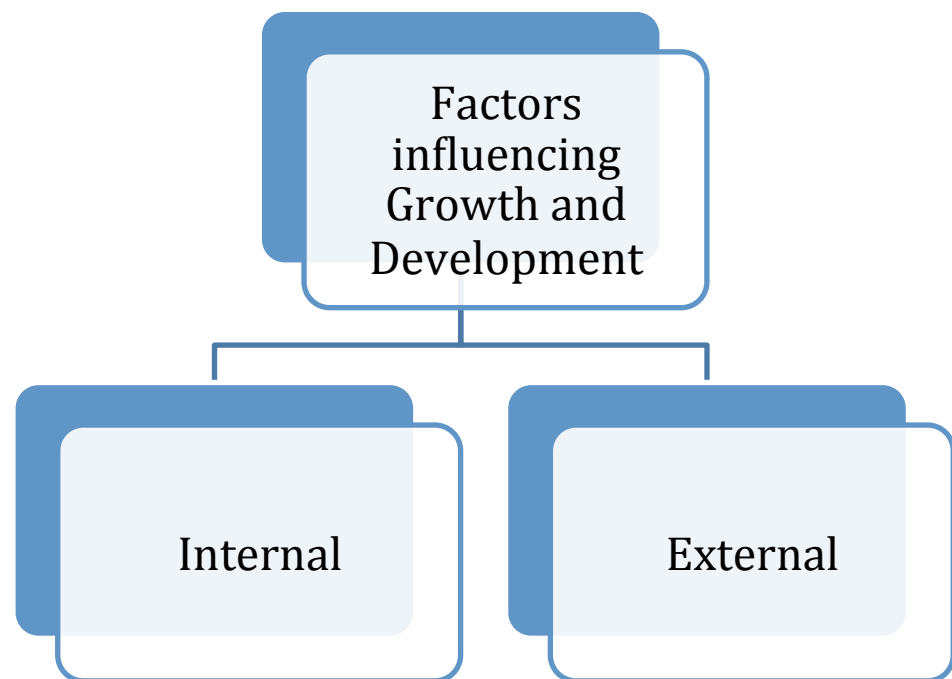
To sum up, we can say that, proper educational implications of the principle of growth and development helps in harmonious development of the individual.

Growth and development of an individual is determined by a number of factors.

Now we will have an appraisal of

### **Factors Influencing Growth and Development**

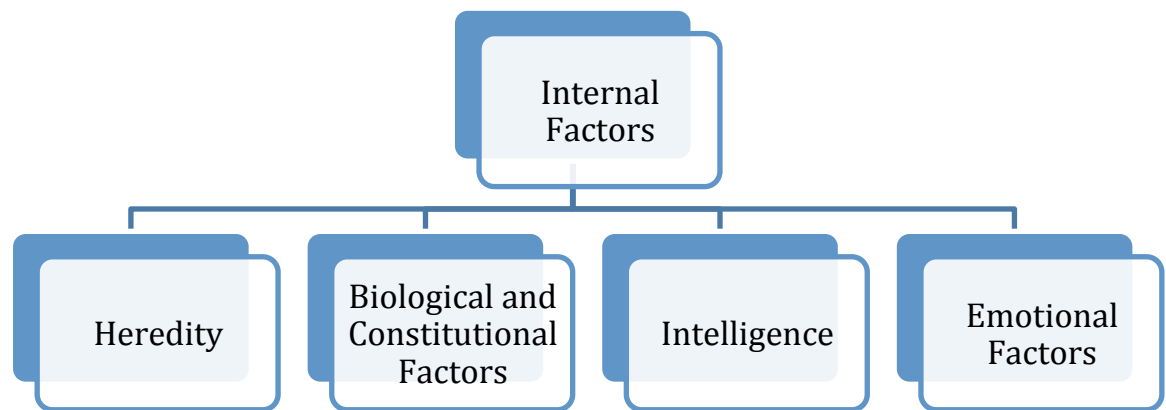
Right from the conception, the beginning of life in the womb of the mother, the growth and development of the human beings is influenced by a variety of factors categorized broadly as internal and external.



#### **A) Internal Factors**

All those factors which lie within the individual are designated as internal factors.

Now we will discuss the internal factors.

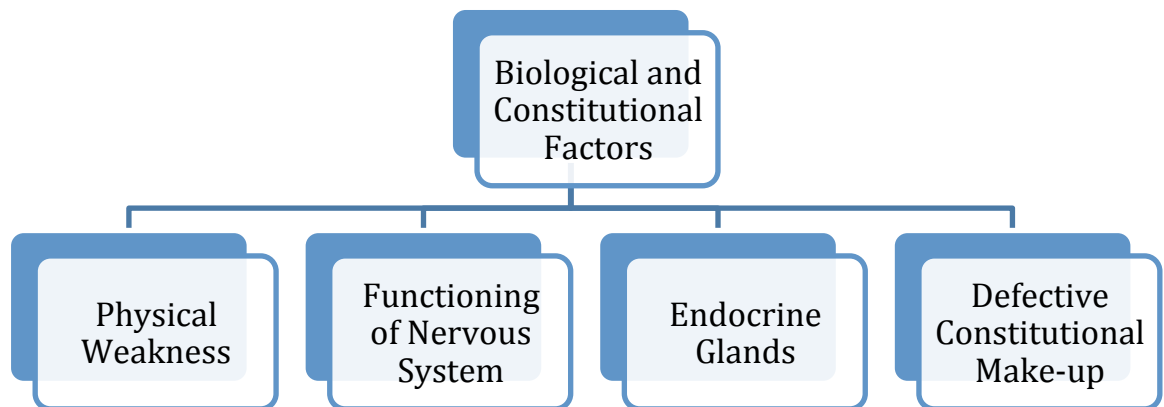


- 1) **Hereditary Factors:** Heredity plays their part at the time of the conception of the child in the womb of the mother. What is transferred to the offspring from the immediate parents in the form of genes and chromosomes at this time constitutes the hereditary contribution.

If hereditary contributions are satisfactory, then with meager efforts of the environment forces, we can expect the satisfactory results. However in case hereditary contribution is quite meager, then we have to make tremendous efforts for achieving the desired success in terms of the children's satisfactory growth and development.

- 2) **Biological and constitutional factors:** What individual possesses in terms of his constitutional make up, somatic structure, physique and body chemistry influences his growth and development throughout his life.

Now we will take up these factors in brief



(I) The children who are physically weak or have internal disturbances within their physical organs can't be expected to achieve satisfactory results in terms of their normal physical growth and development. They usually suffer with illness and diseases which do not only hamper their progress in physical dimensions but also affects their growth and development in other dimensions i.e. mental, social and emotional etc.

(II) The functioning of Nervous system of an individual at any stage of his growth and development, affects his further growth and development. The normal functioning of nervous system positively affects growth and development whereas the malfunctioning has adverse effect on the growth and development of the child.

(III) The endocrine or Ductless glands are the potent factors that affect the growth and development of the individual from the very early age. The chemistry of the body is governed by these glands. Each of these glands secretes their own chemicals known as hormones. These hormones are directly poured into the blood stream. Development process is largely affected by these hormones. Appropriate amount of secretion helps

in proper growth and development but under secretion and over secretion of these hormones adversely affects the process of growth and development.

(IV) Biologically weak or defective constitutional make up like ugly face, short stature, deformities of the body, etc. may give birth to feelings of inferiority in the child. Moreover, he may face the adjustment problems in the social environment and consequently he may lag behind in the race of growth and development pertaining to various aspects of his personality make up.

Another Internal Factor that affects growth and development is

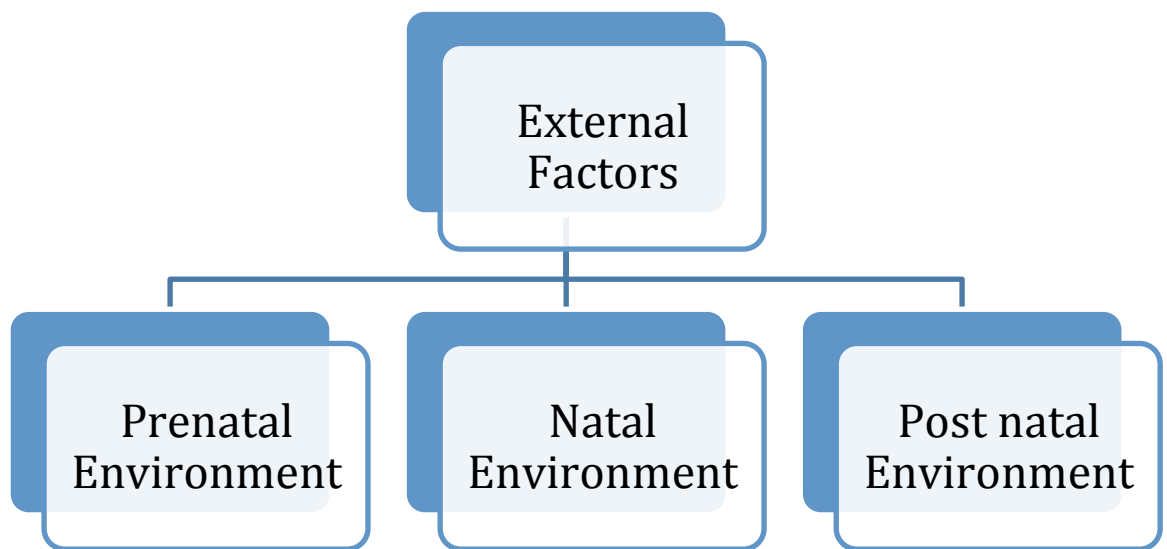
**3. Intelligence:** Intelligence, as the ability to learn, adjust and take the right decision at the right time has a significant correlation with the overall growth and development of the children. It affects their social behavior, moral judgment and emotional make up. An intelligent person is said to exercise reasonable control over his emotions, and is found to carry on well with his personal and social adjustment. In this way, physical, social, emotional, moral and language development of the child is greatly influenced and controlled by the level of his intelligence.

**4. Emotional factors:** Emotional factors like emotional adjustability and maturity play a big role in influencing one's overall growth and development. The children who are found to be overwhelmed with negative emotions like fear, anger, and jealousy etc. are adversely affected in terms of their normal physical, mental, social, moral and language development. If one can't exercise a reasonable control over his emotions, he is sure to suffer in terms of his growth and development. He will have to face difficulty in his social adjustment. He may fail in doing some serious mental activity. He may spoil his physical and mental health on account of his bad temperament and abnormal emotional outburst.

Next are the

## **B) External Factors**

The factors lying outside the individual in his environment are said to be the external factors for influencing his growth and development. They begin their role of influencing one's growth and development just after one's conception in the womb of his mother. They may include the following.



### **1. Prenatal Environment**

What is available to the child for his care and nourishment in the womb of the mother from the time of the conception till birth is quite important from the angle of one's growth and development. A few mentionable things or factors associated with this period may be

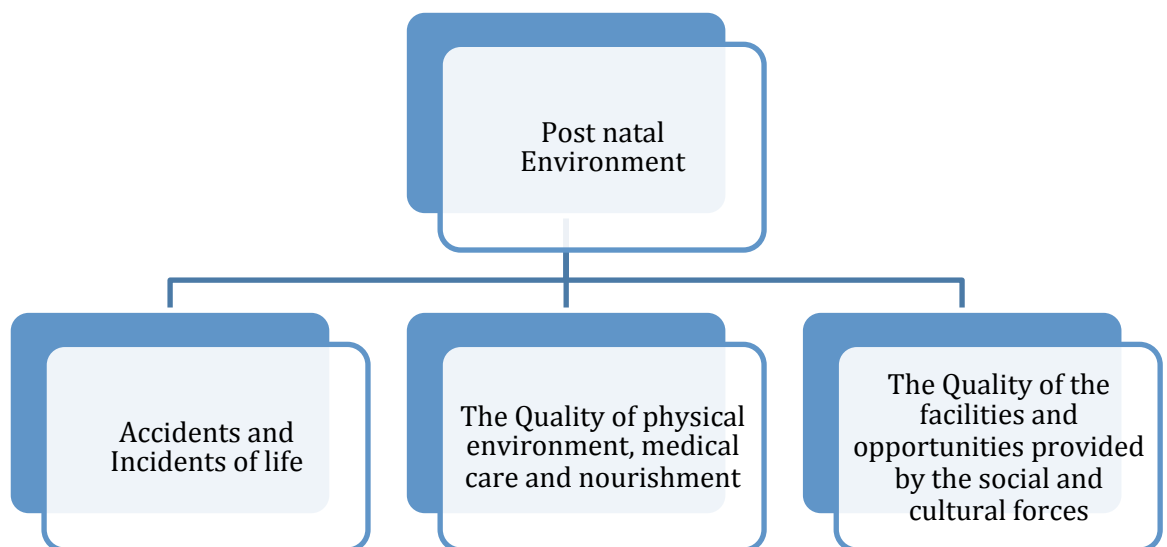
- The physical and mental health of the mother during pregnancy.
- Single child or multiple children getting nourishment in the womb.
- The quality and quantity of nutrition received by, the embryo within the womb of the mother.
- Whether or not the embryo has been subjected to harmful radiation or rays etc.
- Normal or abnormal delivery.

—Any danger or accident to the child in the womb.

2. **Natal Environment:** Natal period i.e. during the birth of the child, though very brief have a detrimental effect on the growth and development of the child. The type of birth i.e. caesarian or normal delivery determines his development. For example, if this period is smooth i.e. smooth delivery without any complications, individual will grow and develop smoothly. If there is difficult labor or if the child undergoes difficult forceps delivery, he is likely to develop complications and the period of growth and development is not normal or smooth.

### 3. **Postnatal Environment**

What one gets from the different conditions and forces of one's environment after his birth influences his growth and development in so many ways. Some of the environmental forces and conditions may be:



- (I) **Accidents and incidents of life:** The growth and development of an individual is greatly influenced by the good and bad incidents and accidents which one happens to meet in his life time. Sometimes a small injury or

incident may change the entire development course of the individual. For example if nervous system gets a setback, it will affect the mental development of the child and in turn it will affect his development in other dimensions i.e. social, emotional, moral and physical.

**(II) The Quality of physical environment, medical care and nourishment:**

One's growth and development is greatly influenced by the quality of physical environment, medical care and nourishment available to him for his living and working. It may demand open space, balanced diet, good living and working conditions, proper timely medical care etc. One will achieve the heights of his growth and development to the tune of the proper availability of these things.

**(III) The Quality of the facilities and opportunities provided by the social and**

**cultural forces:** What one gets from his social and cultural environment and forces for the growth and development of his potentials influences the entire course of his development. In true sense, one develops and becomes what is permitted and desired by these social and cultural forces. A few of such conditions and force are:

—Parental and family care received by the child.

—Economic and social status of the parents and the family.

—The quality of the neighborhood and surrounding environment.

—The quality of the schooling received by the child.

—The quality of the peer group, relationships and company of the child.

—The quality of the treatment made available to the child and child's family on account of their caste, religion, domicile or citizenship.

—The quality of the educational and vocational facilities and opportunity available to the children.

—The quality of the government, laws and origination of the society to which the child belongs.

—The quality of the power and status enjoyed by the country to which the child belongs.

To conclude, we can say that growth and development is a comprehensive process. It is determined by a number of internal and external factors. It follows many principles.

It is of concern for the parents, teachers, coaches and mentors to have appropriate knowledge of factors affecting growth and development, principles of growth and development proper knowledge, understanding and application on their part will stimulate and ensure proper growth and development.

That's all for today.

Thank you!