

Growth and Development



Growth

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

Development

- It is the process of functional and **physiological maturation** of the individual. It is progressive increase in **skill** and **capacity** to function. It is related to maturation and **myelination** of the **nervous system**. It includes psychological, emotional and social changes. It is **qualitative** aspects.

Principles of Growth and Development

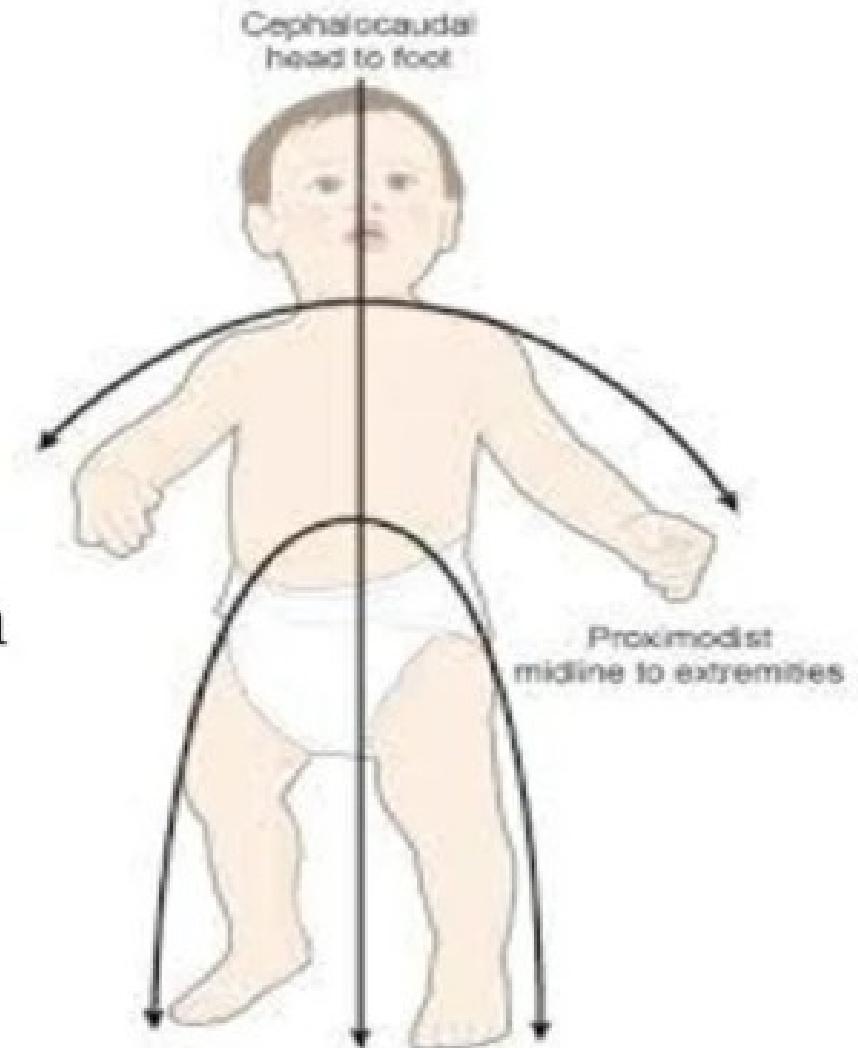


- Growth and development are ***continuous, orderly, sequential processes*** influenced by maturational, environmental, and genetic factors.
- All humans follow the ***same pattern*** of growth and development.
- The ***sequence*** of each stage is predictable, although the time of onset, the length of the stage, and the effects of each stage vary with the person.
- Each developmental stage has its ***own characteristics*** .

Principles of Growth and Development

- Growth and development occur in ***a cephalocaudal*** direction, that is, starting at the head and moving to the trunk, the legs, and the feet.

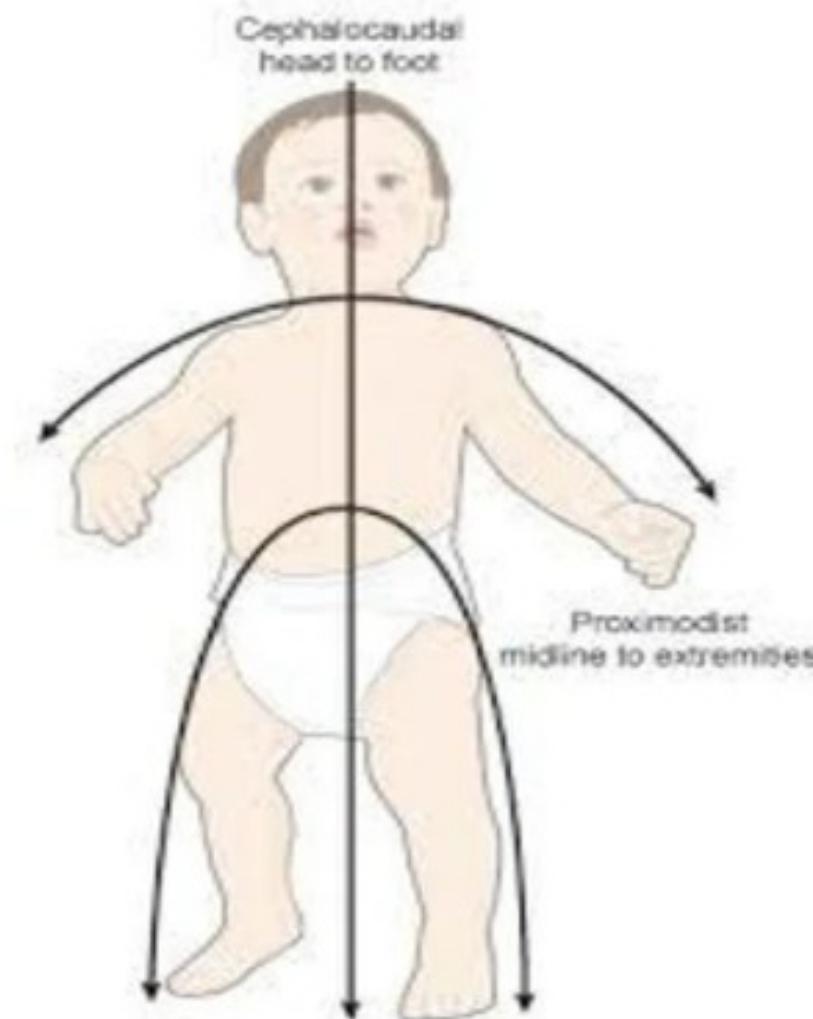
This pattern is obvious at birth when the head of the infant is disproportionately large.



Principles of Growth and Development

- Growth and development occur in *a proximodistal* direction, that is, from the center of the body outward.

For example, infants can roll over before they can grasp an object with the thumb and second finger.



Principles of Growth and Development

- Development proceeds from **simple to complex**, or from single acts to integrated acts.
- Development becomes ***increasingly differentiated***. Differentiated development begins with a generalized response and progresses to a skilled specific response.

Principles of Growth and Development



- Certain stages of growth and development are ***more critical*** than others. (the first 10 to 12 weeks after conception are critical).
- The pace of growth and development ***is uneven***. growth is greater during infancy than during childhood. Asynchronous (uneven) development is demonstrated by rapid growth of the head during infancy and the extremities at puberty. ***Growth spurts***