
Infancy: Landmarks of Development

Overview

In infancy development proceeds in an orderly fashion in brain development, physical growth, locomotion, and fine motor skills. From the early ability to lift one's head the baby progresses through stages to finally take the first steps in walking. From the early grasp reflex the baby gradually develops the ability to use the visually guided reach and this maturation eventually leads to handling small objects with precision. Principles of development help explain this natural progress of developmental landmarks. Because some children accomplish landmarks earlier and some later, developmental norms, are given only as approximate guidelines. Both natural development and current practice influence the landmarks of development. Culture and current practice also influence the experiences of breast feeding, or bottle and weaning. The understanding of early brain development brings focus to what is optimal in relationships and stimulation in the first two years. The normal experiences in a loving environment is seen as best for optimal development of the very young child.

Questions to Consider

1. Why do some babies skip learning to crawl before walking?
2. How would the practice of holding the young infant in a standing position affect the timing of walking?
3. What would you explain to a parent whose baby is not walking at thirteen months?
4. How would an early grasping and holding ability affect the child's learning?
5. What influences landmarks of development?
6. How does early experience change the developing brain during the first two years?
7. What kinds of experiences are the best for optimal early brain development?

Vocabulary

Read these terms with their definitions before viewing the program.

Crawling Means of locomotion in which the infant moves on all fours.

Landmarks Newly acquired skills and competencies achieved by infants as they grow and develop.

Locomotion Action of moving from place to place.

Milestones Achievements in physical growth.

Neuron Nerve cell of the central nervous system, including the brain

Neuron Connections Pathway of the nerve impulse or message as it travels from one neuron to another or to a specific point in the body.

Norms Average ages for appearance of developmental landmarks.

Sequence Orderly steps of occurrence.

Visually Guided Reach The ability to keep an eye on an object and reach for it directly.

Weaning The process of changing the feeding of the infant from bottle or breast to solid food

Instructional Objectives

When you have successfully completed this module, you will be able to:

1. Arrange in correct sequence landmarks of the development of locomotion.
2. Arrange in correct sequence landmarks of the development of the visually guided reach and grasp.
3. Illustrate the following principles of development with examples:
 - head-to-tail direction of growth
 - midline to extremity direction of growth
 - general to specific
 - simple to complex
 - variation in rate, but not sequence of development.
4. List factors that influence rate of development and explain how current child care practices can influence development.
5. List three milestones in physical growth during the first year.
6. Through discussing putting the baby to sleep on his back, explain how a current practice can affect landmarks of development.
7. List advantages of breastfeeding.
8. Identify the changes in neuron development in the first two years.
9. Discuss the result of early experiences on brain development and recommendations for optimal brain development early in life.

Self-Test

After studying the objectives and watching the video, take the self-test to check your progress.

1. Number in sequence the following landmarks of development of locomotion.

- | | |
|---|---|
| <input type="checkbox"/> a. creeping | <input type="checkbox"/> e. lifting chest |
| <input type="checkbox"/> b. walking | <input type="checkbox"/> f. standing |
| <input type="checkbox"/> c. lifting head | <input type="checkbox"/> g. sitting |
| <input type="checkbox"/> d. rolling front to back | |

2. Number in sequence the following landmarks of the development of the grasp and the visually guided reach.

- | | |
|---|---|
| <input type="checkbox"/> a. Tracks objects | <input type="checkbox"/> d. Bats at objects |
| <input type="checkbox"/> b. Reaches and grasps object directly | <input type="checkbox"/> e. Uses whole hand grasp |
| <input type="checkbox"/> c. Arms stretch in general direction of the object | <input type="checkbox"/> f. Uses thumb and forefinger together. |

3. Explain how head-to-tail direction of growth is seen in the development of locomotion.

4. Explain how midline to extremity direction of growth is seen in the development of visually guided reach.

5. Give an example of each principle of development.

a. General to specific:

b. Simple to complex:

6. Using a landmark of development, explain the principle that development varies in rate but the sequence remains the same.

7. Select the following factors that influence rate of accomplishing physical landmarks of development.

- a. Health
- b. Maturational time table
- c. Physical appearance
- d. Culture
- e. Opportunity to practice
- f. Economic stability of family
- g. Parent-child interaction

8. List three milestones of physical growth in infancy.

- a. _____
- b. _____
- c. _____

9 To show how child care practices influence development explain how the practice of putting infants to sleep on their backs as a prevention against SIDs can change landmarks of locomotor development.

10. Norms for development landmarks are

- a. the wide age range within which a specific landmark will appear.
- b. the gauge to determine normal development developed by psychologists and pediatricians.
- c. approximate guidelines for the achievement of a landmark.
- d. b. and c. only.
- e. all of the above.

11. List three advantages of breast feeding:

- a. _____
- b. _____
- c. _____

12. Describe the neuron development in the first two years and how this relates to the baby's early experiences.

13. Explain the following phrases concerning brain development:

“Use it or loose it.”

“More is not better.”

14. What would you advise parents in providing the best for early brain development during infancy?
