

Physical development of premature babies

Reviewed by SickKids Staff | Last updated: October 31st 2009

Learn about a normal full-term baby's physical growth in the first year of life. Premature babies will likely grow at a slower pace than described.

Key points

- All babies grow at their own pace and have growth spurts and fluctuations in their rate of weight gain.
- All babies develop according to the same sequence of events, such as crawling before walking.
- Your baby's eyesight, hearing, and communication skills will develop over their first year of life.

A lot will happen in your baby's first 12 months of life. Before you know it, your tiny, "helpless" newborn baby will be a person in their own right, able to move around and communicate. This section gives a detailed description of your baby's growth and physical development in their first year.



Parents of preterm babies should be attending regular follow up clinics so an expert can monitor their baby's physical progress. Depending on how premature a baby was born and whether there were other complications, premature infants may be at risk for physical disabilities, most commonly, cerebral palsy and autism spectrum disorder.

Sometimes, these conditions are diagnosed during the first year of a baby's life. This page describes various aspects of a full-term baby's general physical growth and development in the first year of life. Parents of preterm babies can use this to gauge their own baby's progress. Depending on the condition of your preterm baby however, not all the information may apply.

Growth

Most healthy, full-term newborn babies double their birth weight by four months and triple it by their first birthday.

Keep in mind, though, that all babies grow at their own pace. A small or large baby may be perfectly healthy. Also, babies have growth spurts and fluctuations in their rate of weight gain.

Motor development

All babies develop according to the same sequence of events. For example, all babies learn to sit before they learn to walk. However, some children reach developmental milestones such as sitting and walking early, and others later.

Babies generally develop from the top down. The first thing to develop is head control and strengthening of the neck muscles. Later, hand coordination develops, which allows a baby to pull themselves forward before learning how to crawl. Once a baby has better control of their lower body, they can use their hands and knees to crawl. All of this happens in preparation for learning to walk.

A baby develops as their central nervous system matures. Along the way, many of the primitive reflexes they had as a baby, such as the grasp and walking reflexes, are lost. These primitive reflexes need to disappear in order for a baby to learn to move themselves voluntarily. The walking reflex, for example, disappears by the end of the first month of life. The grasp reflex starts to disappear at two to three months of age. Also, while a young baby wildly moves their arms and legs in every direction, an older baby learns to make specific responses.

Vision, hearing and communication

Your baby's eyesight, hearing, and communication skills will develop over their first year of life. While newborn babies can only see things about 25 cm (10 inches) in front of them at first, their sight improves to near adult levels by the age of eight months. Newborn babies can hear rather well at birth, and this, along with their ability to respond to sound and their communication skills, improves throughout the first year.

Please visit [AboutKidsHealth.ca](https://www.aboutkidshealth.ca) for more child health information.

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