

Your Child's Brain

Stages of Brain Development

Child's Age	What's Happening	What Adults Can Do
Before Birth	Most of a child's brain cells are formed.	Eat a healthy diet during pregnancy and avoid smoking or drinking alcohol.
Birth to One Year	Movement, vision, hearing, and verbal skills begin to develop. Fatty coating forms to strengthen brain cell links.	Talk, sing, and play with the baby. Respond to baby's babbling. Provide nutritious foods, including breast milk.
One to Three Years	Higher level thinking starts to develop. Verbal skills continue to grow.	Provide hands-on experiences for children. Read to children often.
Three Years and Up	Links between brain cells continue to form and higher level thinking develops.	Keep communicating positively with children. Keep reading to children. Provide hands-on experiences.

"Serve and Return"

When a baby coos, babbles, or smiles, most adults talk or smile back. This "serve and return" form of communication is important to a baby's growing brain.

Children's brains develop best in a relationship with a caring adult. This includes relationships in the home, relationships with family outside the



"It is certainly no accident that the affection most parents feel toward their babies and the kind of attention we most want to shower them with—touching, holding, comforting, rocking, singing, and talking to—provide precisely the best kind of stimulation for their growing brains." *Zero to Three National Center for Infants, Toddlers, and Families.*

Numbers to Know

- 700** Number of new brain cell links made each second during the first few years of a child's life.
- 90 %** Chance a child will have delays in development if he is exposed to more than one risk factor such as poverty, a parent's depression, abuse or neglect.
- 18 months** Age at which there is an important difference between vocabularies in young children based upon the amount and quality of caregivers' talk early in life.
- 100 billion** Number of cells in an adult brain. Most of them are already present at birth!
- 2 years** Age at which children should switch to a lower fat diet. Children younger than two need a high level of fat to develop a healthy brain.



Facts to Know



- Babies learn movement, then verbal skills, then more complex thinking skills.
- The brain changes the most during a child's early years.
- Both genes and experiences play key roles in a child's developing brain.
- Early experiences determine which brain links are strengthened and which are removed. "Use it or lose it!"
- Children learn best through play. Teacher guided instruction is less important than time to play, both indoors and outdoors.
- Toxic stress, such as severe poverty, exposure to violence, abuse or neglect, and parent depression, damages a child's brain structure.
- Quality early childhood experiences can lessen the need for expensive health care, welfare payments, mental health services, and even jail time later in life.
- Building a healthy brain early is more effective, and less expensive, than working to repair it later.

The Most Important Things

- Good nutrition is important to brain development. Expectant mothers should get plenty of protein and iron. Breast milk is the best food to help infants develop healthy brains. Children younger than two-years-old should drink breast milk or whole milk.
- Research shows that a positive, back-and-forth relationship between a child and his caregivers is one of the most important factors in healthy brain development. Interactions with caring people are more important to brain development than providing specific toys, music, or DVDs.