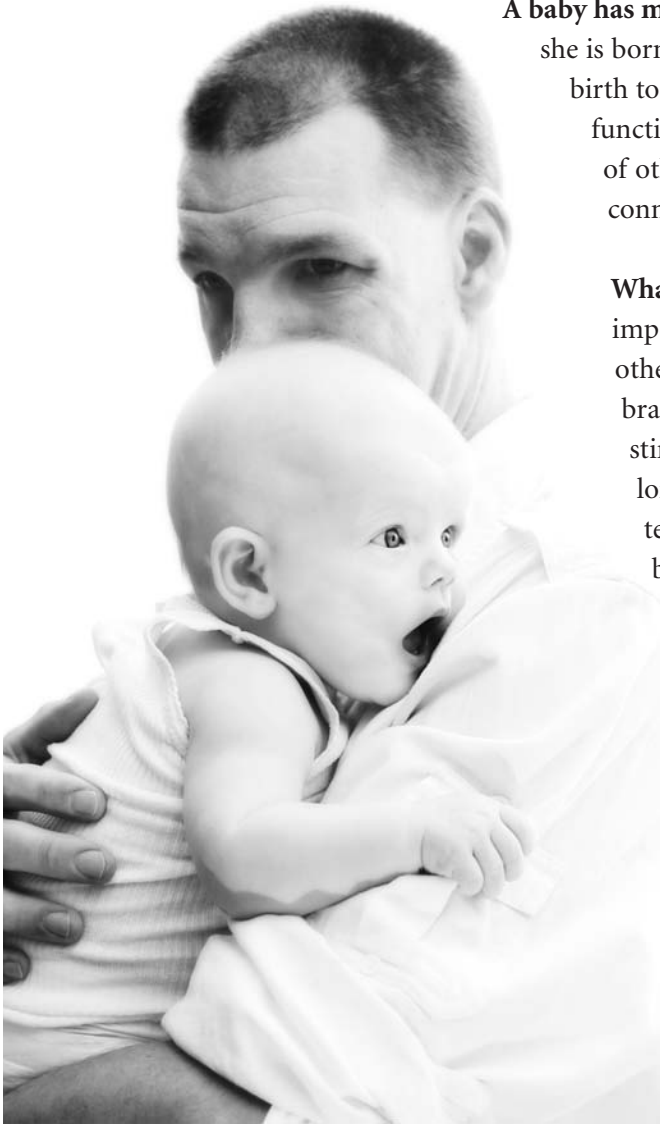


# What is Brain Development?



**A baby has more than 100 billion brain cells or neurons** when he or she is born. Some of these brain cells are connected, or wired, at birth to control the newborn's breathing, heartbeats, and other functions. However, during the early years of life, quadrillions of other connections are made between the brain cells. These connections shape how the child thinks, feels, and acts.

**What a baby or child sees, hears, smells, tastes, and feels** is important in building these connections. How parents and other caregivers care for children helps determine how the brain wires these connections. Connections that are not stimulated are eliminated. They wither and die and are no longer there for use by the child. We can think about this in terms of our bodies. Our brains, just like the muscles in our bodies, become stronger with exercise. If we don't exercise, eventually our muscles would grow so weak they would not be useful to us. If children's brains aren't exercised or stimulated, connections among brain cells weaken and no longer help children develop memory, problem solving skills, language, and the capacity to relate to people and to cope with the challenges of life.

**The things most parents already do** contribute to the building of brain power. When you rock and cuddle your baby or hug and kiss your preschooler you're helping to develop the connections that lead to your child's ability to experience healthy emotions and relate well to people.

**Through nurturance, warmth and affection**, and by consistently and lovingly meeting the needs of babies, parents are helping to develop the part of the brain that deals with emotions such as empathy, happiness, sadness, and hopefulness.

**Also, reading to babies and young children** can stimulate language development. Some people feel silly talking to babies because they can't talk back. But talking to your baby as you feed, dress, or play with him or her is developing those brain cell connections that will contribute to language development.

**Keeping to a regular schedule or routine** helps children to understand their world and what to expect from it. Allowing children to play with different materials and toys enables children to gain skills and develop curiosity.

*Adapted from: FAQ, University of New Hampshire, Cooperative Extension, 2004*