



Your Baby's Brain

At birth, all of your baby's organs—the heart, lungs, kidneys—are fully developed. They are just smaller than an adult's organs, all except one...

The Brain Builds Itself

Can you imagine living in a country where every home had a telephone, but only a few phones had wires to connect them? The phone system wouldn't work. This situation is like your child's brain at birth. Between the sixth week and fifth month of pregnancy, your baby's brain grew about 100 billion cells! Some of these brain cells are connected at birth, but most are not. During the first five years of life (and afterwards at a slower rate), your child's brain is hard at work connecting these brain cells.

Have you ever noticed what happens when you walk through deep snow or through tall grass over and over along the same route? You make a path. Something like this happens as the brain develops. Each time your baby uses one of her senses—seeing, tasting, touching, hearing, and smelling—a connection or path is made. When a child has different kinds of experiences, and these experiences are repeated over and over again, the connections in the brain become stronger. These connections shape the way a child thinks, feels, behaves and learns.

By about age three, the brain has made many more connections than it will ever need. Just as you might cut back the branches from a tree so that the roots grow stronger, the brain gets rid of connections that are rarely used. This cutting back of the connections that are not used continues, leaving only the important connections in place.

Windows of Opportunity

Scientists tell us that there are times when certain parts of the brain can learn new information more easily than at other times. They call these times *windows of opportunity*. Some of these windows open and then close completely during the first few years of life. For example, the connections for sight must be made in the first three or four months. If they are not made during this time, they are lost forever. This means the child will *never* be able to see.

Other windows may remain open longer, but learning is easier and more natural at certain times. Scientists call these sensitive periods. For example, the first five years are the prime time for learning language. This does not mean that children will learn all there is to know about language by age five. Learning continues to take place throughout life. Although it takes 15-20 years for your child's brain to fully grow and develop, some things are just easier to learn at certain times.

Feeding the Brain

What is most important for you to know is that you can make a difference in building your child's brain! When you talk or read to your child, play or sing with him, touch him, and nourish him with healthy food and love, you are actually "feeding" that very central organ: the brain.

Source: US Department of Education