

Building Your Baby's Brain

A Parent's Guide
to the First Five Years

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Introduction

Are you expecting your first child?

Are you the parent of an infant? a toddler? a preschooler?

Have you been hearing or reading about brain research?

Do you want to learn what this research means for your child?

If you said “yes” to any of these questions, this book is for you. It tells you what scientists know about your baby’s brain—and why you should care.

You will find that things you never dreamed would help build your baby’s brain in fact *do* make a difference. And *every* parent can make a difference. It doesn’t matter how much money you have. Where you live. Or how much time you spent in school. You don’t need to be an expert or read lots of books. All parents can help their baby’s brain to grow.

Scientists know that the first five years of life are very important for building a baby’s brain. And that’s exactly what you—parents, grandparents, caregivers—do every day. In fact, everything you do and say can help to “wire” your child’s brain—for thinking, feeling, moving, and learning. These are the years when you can make a big difference in your child’s development—and your child’s future.

Children grow and develop at different rates. Some children have special needs that require special help. All children need the love and support of a few key people in their lives—most especially their parents.

So we invite you to take a journey with us as we tell you what scientists know about these very important topics:

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Your Baby's Brain

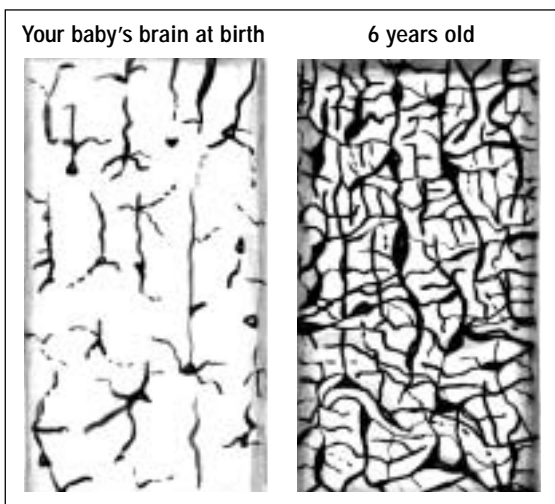
At birth, all of your baby's organs—the heart, lungs, kidneys—are fully developed, but smaller than an adult's organs. All except one—the brain.

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 your 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 your 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 the connections that are rarely used. The brain keeps only the important connections.

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 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. (We'll talk about how to prevent this from happening on page 7.)

Other windows may remain open longer, but learning is easier 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 than at others.

Feeding the Brain

There are many ways to “feed” 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.

All children need the kinds of experiences described in this book to help them grow and develop in healthy ways. If your baby was born too early or with a disability, it is especially important to provide experiences that feed the brain. Talk with a health care provider to learn what special help your baby needs.



Remember This

To give your baby the best start in life and a healthy brain, keep these ideas in mind:

- What you do with your child, good or bad, can affect how her brain grows and develops. It takes 15-20 years for a child's brain to grow to its full size, but most of the connections are made in the early years.
- Take care of yourself, both before and after your baby is born, by eating healthy foods, getting daily exercise, having regular check-ups, and trying to stay calm.
- Help your child to feel safe and secure by responding to her needs, staying calm, and reassuring her when she is frightened.
- Touch, cuddle, and hold your child to let her know you love her and to help her calm down.
- Provide lots of sensory experiences—tasting, touching, seeing, hearing, and smelling. These experiences build the connections that build your child's brain.
- Ask the doctor to check your baby's eyes during the first few months.
- Build a relationship with your child. Children who form attachments to a few special people in their lives are more likely to grow up to be people who feel secure, can relate well to others, and are ready and eager to learn.
- Talk, sing, play music, read, tell stories, touch, and play with your child every day.
- Take the time to find a child care or preschool program that is warm, loving, and safe. Don't settle for less.

To protect your baby's brain and healthy development:

- Avoid alcohol, drugs, and smoking during pregnancy.
- Never shake or throw your baby in the air.
- Make your home safe.
- Take your baby for regular check-ups.