

Your baby's brain: How parents can support healthy development

Your baby's brain is built over time: It starts during pregnancy, and continues through to early adulthood. And like a building, it needs a strong foundation.

The brain is made up of several different areas that control everything we do—from hearing and walking to problem-solving and how we feel. Each area has millions of brain cells, or neurons. These neurons communicate with each other by passing chemical messages over tiny spaces called synapses. As the messages are repeated over and over, more links are made and “neural pathways” are formed. Think of these pathways as the brain’s “wiring.” In the first years of life, these connections develop at an extremely fast pace.

So how does this development happen? That’s where parents come in. You can help your baby’s brain develop in healthy ways. It doesn’t take special toys or equipment, and it’s easier than you might think!

Did you know...?

- Your baby’s brain wiring is not fully connected at birth. It is very active, changing and developing in response to what’s going on all around them. It is the day-to-day experiences—activities like playing, being read to, learning, and interacting and being responded to by people—that helps to develop your baby’s brain.
- How well all the wiring gets set up—that is, how your baby’s brain develops—will affect her ability to learn language, solve problems, and do well in school. Later in life, it can affect her physical and emotional health and how she gets along with other people.
- **Relationships are crucial.** Loving, consistent, positive relationships help build healthy brains and protect your baby’s brain from the negative effects of stress.
- Even very young infants can experience stress when the places they live and play in feel unsafe, or are frightening. “Toxic” stress—which is much more serious than short-lived, everyday stress—is caused by persistent problems like extreme marital conflict, poverty, abuse, neglect, being exposed to violence, having a parent who misuses drugs or alcohol, or having a parent with an untreated mental illness. Toxic stress is harmful to your baby’s developing brain. It can lead to physical, learning and emotional problems in childhood, and these problems can carry on right into adulthood. **If you’re concerned about the situation in your home, talk to your doctor or your baby’s doctor.**

:: Highlights

- Your baby's brain needs a strong foundation.
- Loving, consistent, positive relationships help build healthy brains and protect your baby's brain from the negative effects of stress.
- Everyday experiences help shape your baby's brain—from your daily routines to the people your baby comes in contact with.

Your baby's developing brain needs:

- **Responsive, nurturing, positive experiences:** Everyday experiences help shape your baby's brain—from your daily routines to the people your baby comes in contact with. Babies need to live and play in healthy spaces with opportunities to learn and grow. And they need you to learn how to recognize when they are tired, or hungry, or stressed or that they want a cuddle or hug from you. Responding warmly and predictably to your baby and creating routines help babies feel safe. It shows them that they can count on you when they are sick, upset or distressed, and that you can meet their needs. Babies need their parents and caregivers to respond to them in loving, caring and consistent ways.
- **Fun activities:** Talking, reading and singing to your baby are all fun and easy ways to help her grow. So are simple games like getting down on the floor for some tummy time with your young baby, or playing peek-a-boo with your 5-month-old.
- **Good food:** If you are able to breastfeed, breastmilk is the best food you can give your baby for the first 6 months of life (and well beyond, with complementary foods). Whether you breastfeed or use formula, think of feeding time as a brain-building time too: making eye contact, smiling, and having skin contact are all positive experiences. As your baby grows, be sure to offer iron-rich foods and foods with a variety of nutrients, like fruits and vegetables (see below for links to resources on healthy eating).
- **Your baby doesn't need expensive toys.** The loving, smiling faces of adults who respond to them are the best toys EVER. Many electronic toys, DVDs, and TV shows are marketed as "educational" for babies. But there is no research to back up claims that these products help babies learn. Watching a DVD or TV show is **passive**. Babies need to actively interact with you and other people in their lives, and explore their world. Screen time is not recommended for children under 2.

What can you do?

- **Respond to your baby.** This is especially important when your baby is sick, hungry, upset, or just needs some comfort. But babies also reach out for you in countless positive ways—by babbling, making sounds, or smiling. When you respond in a loving and consistent way, you help your baby's brain develop.
- **Provide a safe and loving home for your baby.** Develop daily routines that your baby can count on. Keep your home calm.
- **Help your baby explore his surroundings, both inside and out.** Play helps babies learn, and you are your child's first playmate. Playing simple games will help him learn about the people and the world around him. And remember to talk to your baby as you go through your daily routines. Tell your baby what is going on, point out interesting things that you see together, and help him develop his other senses—hearing, touch, taste, and smell.
- **Get regular health care for your baby.** Your baby should be seen by a healthcare provider on a regular basis. Keep vaccines up-to-date and talk to your provider about development and what to expect next.
- **Develop community connections.** Get to know the services and programs available in your neighborhood. Many communities have agencies or centres that serve young families. Playgroups and drop-ins are great places to meet other parents, and many have visiting professionals who can answer questions. If you're not sure where to go, try contacting your local community centre, public library, public health unit, or family resource program.
- **Choose quality child care.** When you need to be away from your baby, make sure you leave your baby with a caregiver who will care for your baby like you do. Choose someone you trust, who will respond to your baby's emotional needs, and provide a safe and healthy environment with opportunities to learn and grow.

- **Reach out if you need help.** If you feel stressed, overwhelmed, depressed or need some support caring for your baby, don't be afraid to reach out for help. Talk to your health care provider, your family or contact a local community agency.

More information from the CPS:

- Breastfeeding
- Attachment: The bond that lasts a lifetime
- Playtime with your baby: Learning and growing in the first year
- Your child's development: What to expect
- Read, speak, sing to your baby: How parents can promote literacy from birth
- Your busy toddler: Games, toys and play in the second year of life
- Guiding your child with positive discipline
- Child care: Making the best choice for your family

Additional resources:

- Encyclopedia on Early Childhood Development
- Zero to Three: Resources for Parents
- Healthy Baby, Healthy Brain: Best Start

Reviewed by the following CPS committees:

- Mental Health and Developmental Disabilities Committee
- Public Education Advisory Committee

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The information on Caring for Kids should not be used as a substitute for medical care and advice. If you have specific concerns about your child's health, please see your child's paediatrician, family physician, or another health care provider.