

# SUPPORTING EARLY BRAIN DEVELOPMENT: BUILDING THE BRAIN

Our brains are like gardens that we nurture over the course of our lifetime. What we nurture and what we practice determine which connections in our brains blossom and grow strong. In our earliest years, we need extra support to grow a healthy brain. Caring relationships, child centered interactions, and responsive care are keys to nurturing healthy brain development.

### THE TAKE HOME:

1. In the first years of life, children's brains grow faster than they ever will again.
2. Children's early experiences shape brain development and set a foundation for a lifetime of learning.
3. Relationships build our brains. Responsive caregiving is key to supporting healthy brain development.



### WHAT DOES THE RESEARCH SAY?

- In the first five years of life, children's brains grow faster than they ever will again.
- Every time we learn something new, our brains make new physical connections between the brain cells, or neurons, in our brains. If you learn something new as you read this, your brain will be physically different than it was when you started reading!
- Children's brains are built to learn new things. Scientists estimate that between birth and age 3, children's brains make 1 million new neural connections per second. While adults can learn new things too, it may take longer or require more practice. For example, it is much harder for an adult to learn a second or third language than it is for a child.
- Children learn so much so quickly that their brains make more connections than they need. Between ages 2 and 3, children's brains have twice as many connections in their brains as the brains of adults.
- As children continue to grow and learn, their brains remove the extra connections that they don't need. This process is called pruning. Children's early experiences determine which connections remain and grow stronger. The more often a child has an experience, the stronger those connections become. Through this process, our earliest experiences shape the brain's physical development.
- Think about experiences with a broad lens. It's not just about the books we read, it's about the people, places, languages, and traditions that surround us. These fundamental early experiences build our brains and our identities.
- Relationships are the most important factors in brain development. You don't need fancy toys, gadgets, or programs. Children build their brains in the context of supportive, responsive relationships.



This resource was supported by the Administration for Children and Families (ACF) of the United States (U.S.) Department of Health and Human Services (HHS) as part of a financial assistance award totaling \$10,200,000 with 100% funded by ACF. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by ACF/HHS, or the U.S. Government. This resource may be duplicated for noncommercial uses without permission.



## WHAT DOES IT LOOK LIKE?

- **Language support.** Children’s brains are primed to learn different skills at different times. For example, it is easiest for children to learn new language sounds early in life. As we age, it becomes harder, and our brains aren’t as good at recognizing new language sounds. Children can learn multiple languages easily and without confusion with high-quality, intentional language support. This window of opportunity is critical to supporting children who are learning more than one language. The Head Start Program Performance Standards recognize bilingualism and biliteracy as strengths. Because we know children have this window of opportunity, programs must include teaching practices that focus on developing infants’ and toddlers’ home languages.
- **Child-centered interactions.** Young children’s brains are particularly attuned to social interactions. Back-and-forth, child-centered interactions build neural pathways. Child-centered interactions will look different with each family, community, and culture. Some children may be expected to follow along as an adult models a task or listen attentively to a story. These verbal and non-verbal back-and-forth interactions are powerful. They communicate to children that they are part of a family or community that values their participation and presence.
- **Responsive caregiving.** Responsive caregiving is key to supporting healthy brain development. Responsive caregiving refers to care and teaching practices that are nurturing and responsive to an individual child’s temperament and needs. Responsive caregiving helps children build social and emotional skills, as well as executive functioning skills. Executive functioning skills include short term memory, the ability to focus, control impulses, and think flexibly and creatively. We build these skills over the course of childhood, but even young children can start to build these foundational skills.



## TRY THIS!

- **Support brain development.** Following children’s leads, offering choices, and encouraging their interests are keys to supporting brain development. Children learn so much by exploring their interests with a supportive adult. Talking about this concept with parents is a great way to boost children’s learning at home. During home visits, work with parents to help them support, but not dominate, an activity their child is doing.
- **Modify spaces.** Make modifications to spaces so that children are able to explore their interests as fully as possible. For children with disabilities or suspected delays, home visitors can help families modify spaces in their homes so that children can more easily participate. For example, create open floor spaces and pathways so a child can move easily throughout the home.
- **Focus on child-centered social interactions.** Young children recognize when they are part of the conversation or activities. Make space and take time to let children respond and build on the interaction, through language or actions. Home visitors can help families include children in tasks that they do regularly.
- **Create predictable routines for children.** Consistent, regular experiences help children feel more secure. Infants and toddlers love to do things again and again. This repetition helps them learn. Home visitors can look for opportunities to help caregivers build and improve their family routines to support consistency. For example, if a child often struggles with nap time, you might suggest signaling nap time with a favorite calming song, or a predictable cozy, quiet time that includes reading from a selection of favorite books.
- **Help young children regulate their emotions through responsive care.** Providing extra regulatory support, like holding toddlers to help them calm down, is key. Children under 5 don’t have the neural networks in place to control their impulses or fully regulate their emotions. Helping children regulate their emotions allows them to learn skills to self-soothe later. They also learn that they can depend on adults when they are feeling overwhelmed, frustrated, and upset. These early relationships are fundamental to healthy brain development.

---

LEARN MORE:

Child Development: Brain Building

<https://eclkc.ohs.acf.hhs.gov/school-readiness/article/child-development-brain-building>

Supporting Children's Early Brain Development

<https://eclkc.ohs.acf.hhs.gov/video/supporting-childrens-early-brain-development>

Early Essentials Webisode 8 - Responsive Interactions

<https://eclkc.ohs.acf.hhs.gov/video/early-essentials-webisode-8-responsive-interactions>

Let's Talk About Routines

<https://eclkc.ohs.acf.hhs.gov/video/lets-talk-about-routines>

You're the Best Teacher! Responsive Interactions with Young Children

<https://eclkc.ohs.acf.hhs.gov/publication/youre-best-teacher-responsive-interactions-young-children>



## CONNECTING AT HOME

# SUPPORTING EARLY BRAIN DEVELOPMENT: BUILDING THE BRAIN

In the first five years of life, children's brains grow faster than they ever will again. Children's earliest experiences shape the brain's physical development. These early experiences build the foundation for a lifetime of learning and development.

### MAKE IT SOCIAL

You don't need fancy toys or programs to help children build their brains. Children learn best by interacting with you! Try to share as many back-and-forth interactions with infants and toddlers as you can throughout the day. Finding dedicated time can be challenging, so try to include children in as many everyday activities as you can.

### FOLLOW THEIR LEAD

When your child expresses interest in something or someone, follow their lead. Even if it is just for a few minutes a day, following a child's lead can support their curiosity and provide playful moments for both of you! Resist the urge to take over, even if they may not be able to do everything on their own. Exploring their interests with your support helps children learn new things.

### BUILD ROUTINES

Routines help children feel comfortable and secure. It is easier for children to explore, play, and learn new things when they know what is going to happen. Even if you can't do something at the same time each day, try to build in everyday rituals. Do you always sing a song while you are putting shoes on? Can you listen to calming music while you read a few books before bed?

### BE A REGULATOR

It's no secret that children have big feelings. If we are honest with ourselves, we do too. As adults, we have learned how to regulate our feelings and impulses. Children are still building the networks in their brains that regulate those big feelings. They need our help to hold them close when they are upset, or to model what to do with angry feelings.

