



**LOVE.** A parent's gentle touch, attention and understanding help a child grow in every way. In fact, the stronger the relationship a parent and child have, the easier it will be for the child to make friends and do well in school because she feels safe and loved at home.

"Love. Talk. Play." has teamed up with researchers at the University of Washington's Institute for Learning & Brain Sciences (I-LABS) to look at the science behind why love, talk and play are important to the development of babies and toddlers.

#### INFANT AND TODDLER BRAIN DEVELOPMENT DEPENDS ON RELATIONSHIPS

Connections (or synapses) between a child's brain cells form rapidly in the first few years of life. The number and strength of the connections in her brain depend on her experiences and relationships — both good and bad. Showing a child love and being responsive helps her form healthy brain connections.

- Early interactions and experiences affect how a child's brain is wired. When babies and toddlers get love and attention, their brains will be wired to help them better cope with stressors and to show love and attention.<sup>1</sup>
- A young child's brain lights up when another person matches his actions, suggesting toddlers can identify the presence of a sensitive and responsive caregiver during interactions.\*<sup>2</sup>

try this!

Hugs, kisses and belly zrrrrrrrbrrrrts are all wonderful ways to shower me with affection. Even routines such as brushing my hair, putting on my pajamas, or lifting me into a high chair are opportunities to show me love.

try this!

When you go away, bring back something for me – even if it's just a pretty leaf, a poem you wrote or a doodle you drew.

#### BABIES ARE EMOTIONALLY CONNECTED TO US FROM BIRTH

Our earliest interactions with babies and toddlers lay the foundation for children's social and emotional development. Babies and toddlers learn what it means to "be like us" by listening to our voices and watching and imitating our actions.

- Newborn babies will imitate the facial expressions of an adult even though they have never seen the expressions before and have never even seen their own faces.\*<sup>3</sup>
- Newborns prefer their mother's voice compared to a stranger's voice.\*<sup>4</sup>

Smile and react positively when I gurgle at you, and encourage my attempts to mimic you. The more I practice making sounds, the clearer they will become.

try this!

FOR HAPPY, HEALTHY  
BABIES AND TODDLERS

[LoveTalkPlay.org](http://LoveTalkPlay.org)

## LOOKING INTO A BABY'S EYES HELPS HER FEEL SECURE AND LEARN ABOUT THE WORLD

Babies and toddlers connect to you and learn what is important to pay attention to in their world by looking at your eyes.

- Research shows that when children are about 3 months of age, babies and caregivers use eye gaze to emotionally connect to each other.<sup>5</sup>
- By 10 months of age, babies will follow an adult's eyes to look at a toy when the adult's eyes are open, but not when they are closed. They are beginning to understand the importance of eyes in sharing attention.<sup>\*6</sup>
- Beginning at birth, babies prefer to look at faces engaged in mutual eye contact compared with faces of people looking away.<sup>7</sup>

try this!

When I speak or tell you a story, show with your face and voice that you are interested, so that I build confidence. It is the same when I fall down or I am struggling with a task — give me hugs and encouragement.

try this!

When it is almost time to leave the house, eat a snack or take a nap, tell me what will happen next. Following routines and sharing information makes me feel safe and helps build trust.

## BABIES AND TODDLERS LEARN ABOUT EMOTIONS FROM WATCHING AND LISTENING TO OTHER PEOPLE

Young children pick up on our emotions, both happy and sad. They use this information to better understand their world.

- Young children listen when other people express positive and negative emotions, and they use that information to decide how to act.<sup>\*8</sup>
- Babies smile and express positive vocalizations more when their mothers engage with them in a positive manner first.<sup>9,10</sup>

Build a pretend "house" with chairs, blankets and pillows. Crawl in and snuggle with me, and tell me what home means to our family. Talk about other types of homes that people live in.

try this!

\* Indicates research from the Institute for Learning & Brain Sciences (I-LABS)

1. Gerhardt, S. (2004). *Why love matters: How affection shapes a baby's brain*. New York, NY: Brunner-Routledge.
- \*2. Saby, J. N., Marshall, P. J., & Meltzoff, A. N. (2012). Neural correlates of being imitated: An EEG study in preverbal infants. *Social Neuroscience*, 7, 650-661.
- \*3. Meltzoff, A. N., & Moore, M. K. (1977). Imitation of facial and manual gestures by human neonates. *Science*, 198, 75-78.
4. DeCasper, A. J., & Fifer, W. P. (1980). Of human bonding: Newborns prefer their mothers' voices. *Science*, 208, 1174-1176.
5. Butterworth, G. (2001). Joint visual attention in infancy. In G. Bremner & A. Fogel (Eds.), *Blackwell handbook of infant development* (pp. 213-240). Malden, MA: Blackwell.
- \*6. Brooks, R., & Meltzoff, A. N. (2005). The development of gaze following and its relation to language. *Developmental Science*, 8, 535-543.
7. Farroni, T., Csibra, G., Simion, F., & Johnson, M. H. (2002). Eye contact detection in humans from birth. *Proceedings of the National Academy of Sciences*, 99, 9602-9605.
- \*8. Repacholi, B. M., & Meltzoff, A. N. (2007). Emotional eavesdropping: Infants selectively respond to indirect emotional signals. *Child Development*, 78, 503-521.
9. Cohn, J. F., & Elmore, M. (1988). Effect of contingent changes in mothers' affective expression on the organization of behavior in 3-month-old infants. *Infant Behavior and Development*, 11, 493-505.
10. Cohn, J. F., & Tronick, E. Z. (1987). Mother-infant interaction: The sequence of dyadic states at 3, 6, and 9 months. *Developmental Psychology*, 23, 68-77.