

## How Important Is Physical Contact with Your Infant?

Touch and emotional engagement boost early childhood development, but can children recover from neglectful environments?

By [Katherine Harmon](#) | Thursday, May 6, 2010 | [23](#)



**BONDING TOUCH:** Many babies do not get as much physical contact or emotional engagement with care givers as they crave. An expert in the field explains how these behaviors can influence child development. Image: ISTOCKPHOTO/AREKMALANG

The stark institutional isolation prevalent in the [orphanages](#) of some countries might have mostly melted away decades ago, but many babies and young children all over the world still grow up in environments where touch and emotional engagement are lacking. Many children who have not had ample physical and emotional attention are at higher risk for behavioral, emotional and social problems as they grow up.

These trends point to the lasting effects of early infancy environments and the changes that the brain undergoes during that period. Below the surface, some children from deprived surroundings such as orphanages, have [vastly different hormone levels](#) than their parent-raised peers even beyond the baby years. For instance, in Romania in the 1980s, by ages six to 12, levels of the stress hormone cortisol were still much higher in children who had lived in orphanages for more than eight months than in those who were adopted at or before the age of four months, according to [a study from Development and Psychopathology](#). Other work has shown that children who experienced early deprivation also had different levels of oxytocin and vasopressin (hormones that have been linked to emotion and social bonding), despite having had an average of three years in a family home. "This environmental change [into a home] does not seem to have completely overridden all of the effects of early neglect," the researchers, led by Alison Wismer Fries of the Department of Psychology at the University of Wisconsin–Madison noted in [their study](#), published in 2005 in the *Proceedings of the National Academy of Sciences*.

Myriad biological and environmental factors shape development and can be difficult to

tease apart in scientific studies of children, who all have different genetic predispositions and experiences. But many stories of delayed development and troublesome behavior, such as in the seven-year-old Russian orphan who was returned by his adoptive family in the U.S. in April 2010, have spurred researchers to take an even closer look into the effects of early contact deprivation.

On the flip side, researchers have been discovering how emphasizing skin-to-skin contact between baby and parent can be a boon to both and how consistent emotional engagement with infants can speed their development and [recognition of self](#).

What is so special about these basic behaviors that come without thinking to most parents? We spoke with [Ann Bigelow](#), a professor and researcher of developmental psychology at St. Francis Xavier University in Antigonish, Nova Scotia, whose [lab](#) has been conducting research into parent behavior and infant development.

*[An edited transcript of the interview follows.]*

**We have known for a long time that skin-to-skin contact with babies is important for their development. In what ways does it help them?**

Particularly in the newborn period, it helps calm babies: they cry less and it helps them sleep better. There are some studies that show their brain development is facilitated—probably because they are calmer and sleep better.

**Does skin-to-skin contact with their babies have benefits for the parents?**

It seems to help the mothers, too. It reduces their stress level—they report lower levels of depression, they seem to be able to be more sensitive to their baby's cues and the babies are more responsive to the mother through the whole first three months. They're recognizing their mother earlier, so the relationship between the mother and baby is off to a facilitated start. It works the same way with fathers, too.

There is some interesting work showing that mothers who have just given birth, their skin area on their chest is a degree or two higher than the rest of their body, creating a natural warming area for the newborn. They have the ability to thermoregulate for the baby—if the baby's temperature drops, the mother's temperature rises, and if the baby's temperature rises, the mother's drops. There seems to be a connection between mother and baby from the birthing process itself.

**What is happening in the body—of both parent and child—when there is skin-to-skin contact?**

From the mother's perspective, it probably releases [oxytocin](#). On the behavioral level, if you have a baby that is more relaxed and sleeping better, that's going to relax the mother more.

The newborn is coming out of a very restrictive environment, so anything that simulates that comforts them. Being touched or hearing a heartbeat is familiar because they heard it in the womb.

**Aside from contact, what are some of the other early interactions between**

### **adults and infants that are important for development?**

One of the things infants learn early in life is that their actions affect others' responses—they sense that they're active agents in their environment, so the world isn't just a sound and light show. They learn that probably most readily through other people because people are responsive to babies. Babies catch on very quickly that their actions get a predictable response—you know, "I smile, Mom smiles back"—not all the time but most of the time. They develop a sense that "I'm a causal agent."

There's research that shows babies like to be imitated. We interact with babies much differently than we interact with peers. We tend to imitate behavior back to them in an exaggerated way, which is exactly what babies need, and it helps them learn about their own emotional experience. Seeing it reflected back helps them understand themselves at a very basic perceptual understanding.

### **And do infants with mothers who are quick to imitate develop more rapidly?**

Yes, and that seems to be independent of how talkative mothers are or how smiley mothers are. I think there's probably an upper limit to it. If you're just doing everything the baby does, that could be irritating, just as it would be to anyone else. Most of this stuff is done outside of the mother's awareness—this is just what they do naturally when they are playing with their baby.

### **At what age do babies start to recognize that they are active agents?**

Babies can recognize that "you're imitating me," some say, within the first few hours. Certainly by four months, babies will respond differently if responses from mothers are a reflection of what they're currently doing.

It may also depend how responsive the mother—or the partner that the baby has experience with—is to the baby. If the mother was depressed and therefore not emotionally engaging with the baby, those babies are at risk because those babies are not learning about themselves.

Babies get used to the one person that's most familiar, so if you're with a [depressed mother](#) who has low responsiveness, those babies will be most responsive to those who are least responsive, so they're perpetuating a risk factor for themselves. There's nothing wrong with the baby; they're just responding to what they're experiencing.

### **A lot of these outcomes are measured by early developmental progress—do some of these differences eventually even themselves out?**

For many, yes. But of course it's easier if they start out on the right track than if they have to be rectified.

The more experience babies have with someone who is going to be emotionally engaged with them, the better off they're going to be. But babies are incredibly flexible and adaptable. It's probably the most adaptable point in our lives, which is a good thing because things can turn around.

### **Is there an age where skin-to-skin contact and other interactions lose some of their importance for early development?**

In certain countries, skin-to-skin contact is standard care for babies, and the babies will

determine when they have had enough because they will start to have an interest in other things.

### **Much has been made of children from orphanages, who might have missed out on a lot of the personalized physical and emotional engagement during their infancy. Does this really have long-term effects?**

There's been some interesting work done with children who have been adopted from Romania, where there wasn't a lot of individual attention. In Romania, at least initially after the country opened up [in 1989], there were few adults to many children, and they were also separated by age, so the children weren't interacting with one another as much. After they were adopted into Canadian homes, the longer they had been in the orphanage, the more likely they were to have longer-term deficits. But even if they had been in orphanages for a long time, going into a family environment was beneficial. Most of the kids ended up being okay. Some took longer than others to be okay, and some had long-term deficits.

### **What are some of the long-term deficits that are common in some of these children?**

There are some cognitive deficits initially, and there are some emotional differences. Some have found that children from Romania have indiscriminant friendliness—they're more likely to go off with strangers. It's almost as if they think "all adults are wonderful," and they don't have the sense "there are particular adults that are mine."

### **What can or should be done for children who are coming from an environment where they might not have gotten much physical touching or emotional engagement?**

The main thing would be to give them what they didn't get.

### **What else should we know about the role of infant engagement in development?**

It's not that anything is cut in stone. I don't want to give the impression that if babies don't get this they're marked for life. This early understanding of self and early understanding of other is developed through interaction. It teaches babies basic lessons that they have some agency in the world, so that allows them to explore the world and feel like they can affect their environment as opposed to just [being helpless](#) to whatever happens to them. We're basically a social species, and we learn those things through interacting with others.