Touch Improve's Your Baby's Development

by Dr. Jenn Berman

Physical, human contact is a profound and essential element of child development, good health, and proper brain development. A positive touch communicates love, acceptance, worthiness, and safety to an infant. Without it, a child is likely to die.

The most profound and heartbreaking documented examples of this took place in childcare institutions in Europe and the United States in the early 1900's. Due to a lack of adequate childcare and attempts to keep children germ-free, caretakers of the time had minimal hands-on care with institutionalized children. Even though the children were given proper food and medical care, they became sick and many of them died. Often these children cried for long periods of time, eventually became despondent and depressed, refused to eat and ultimately died. So common was this sequence of events that it became known by professionals as marasmus, hospitalism or "failure to thrive." In 1930, when Bellevue Hospital changed their policy to incorporate physical contact with children under hospital care, the mortality rate dropped from 30 percent to 10 percent.

Monkey Love

In 1958, a researcher named Harry Harlow performed an experiment with rhesus macaque monkeys. He chose them because they

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share roughly 94 percent of their genetic heritage with humans. After the monkeys were born, Harlow separated them from their mothers and gave them a choice between two surrogate "mother" monkeys. One was a soft terrycloth covered monkey surrogate that had a light bulb that provided warmth. The second was a wire monkey with a milk-filled bottle attached to it. The baby monkeys spent only the necessary time needed for feeding with the wire mother and clung for up to 22 hours a day to the cloth mother who provided comfort. Harlow's discoveries fundamentally changed how we view the mother-child relationship. Prior to these experiments, experts believed that the act of feeding bonded children to their caregivers but this graphically proved that touch, not food binds infants to their caregivers.

The Golden Touch

"Everything that newborns and infants know about the universe they learn through their physical sensations." ~ Dr. Reuven Bar-Levav

There are many ways parents can provide positive touch for their babies: holding, hugging, stroking, rocking, breast feeding, massage, and kangaroo care, to name a few. The benefits of touch, for infants, are all encompassing. This simple act can improve immunity, aid in restful sleep, reduce stress, increase IQ, develop positive self-esteem, help growth and improve parent-child bonding.

80 percent of a person's brain growth takes place during the first two years of life. Every time an infant is touched, that sensory input triggers the neurons in her brain to grow and branch out, allowing a greater spread, or arborization process, to take place, thereby increasing brain growth. In studies comparing rats who were deprived of touch and those that were not, the ones that were held and touched experienced:

- •an increase in gross brain mass
- an increase in the synaptic junctions that connect neurons
- a higher ratio of cortical functioning

But the physiological benefits are not limited to the brain. According to Tiffany Field, the Director of the Touch Research Institute at the University of Miami School of Medicine, when children are massaged the pressure stimulates a branch of the cranial nerve which, in turn, stimulates the gastrointestinal tract, releasing glucose and insulin, and therefore, aiding in digestion. In addition, Field reports that massage stimulates the circulation of blood and lymph fluids, allowing the muscles to receive fresh oxygen and nutrients while flushing away waste, releasing tension, soothing nerves, lowering stress hormones like cortisol and norepinephrine, and releasing endorphins in the brain.

The emotional benefits of touch are tremendous. To a preverbal infant, touch is the language of love signaling to a baby that he is wanted, loved, accepted and safe. This early message is crucial in the development of self-esteem. Studies have shown that verbal reassurances, even when given from close proximity, do not provide nearly the same calming effect as physical touch and cuddling.

The Benefits of Kangaroo Care

When my twin daughters were born premature they weighed 4 and 4 and-a-half pounds. They had trouble maintaining their body temperature, struggled to eat, and had a difficult time gaining weight. I had the great fortune to be introduced to kangaroo care by a very experienced neonatal intensive care unit (NICU) nurse. Nurse Shirley instructed my husband and me to place one baby on each of our bare chests covered with a warm, soft blanket. We did this for at least 15 minutes each day for months. As time went on, our girls grew bigger and stronger and we felt more and more attached to them.

Kangaroo care has been studied all over the world due to the amazing healing properties it provides, especially for preemies.

Parents who practice kangaroo care generally place a diaper clad infant in an upright position on a parent's bare chest, stomach to stomach, usually between the breasts allowing the baby's head to rest so that the ear is above the parent's heart allowing the infant to hear the parent's heartbeat much like she did in utero. This type of touch can be miraculous. The technique originated in Bogotá, Columbia where neonatologists Edgar Rey and Hector Martinez were trying to find a solution to the lack of reliable electrical power and equipment to take care of preemies. They found that this natural way of maintaining the babies' body temperature and restoring infant's vital signs also reduced the mortality rate from 70 percent to 30 percent. Not only was this intervention helpful for the survival of the babies, but also it they found that it was excellent for bonding and very comforting to both parent and child.

Since Rey and Martinez began their kangaroo care regimen many other hospitals and pediatricians have implemented similar programs as well. The studies consistently show that kangaroo care can:

- help stabilize heart rates
- regulate breathing, improving oxygen dispersion throughout the body
- prevent cold stress
- improve sleep

- improve weigh gain
- decrease crying
- increase periods of alertness
- increase bonding
- increase the likelihood of an early hospital discharge

Baby Massage

Preemies, in particular, stand to receive great benefits from proper massage techniques. Studies of premature infants who received massage by nurses in the neonatal unit gained weight faster, performed better on neonatal behavioral tests, and were able to leave the hospital sooner than their counterparts who did not receive massage. But massage isn't just beneficial for preemies. In another study of four-month-old babies who were tested for "novelty preference" (early memory and sensory discrimination skills) babies who were massaged scored significantly higher than control groups. Novelty preference is a strong predictor of later IQ.

Different Strokes for Different Babies

Incorporating touch, massage, and even kangaroo care can be an important staple in the bonding and wellness practices of any family. Of course, you should always check with your pediatrician before trying anything new with your child. Also, it is very important to be sensitive to your child's cues and to respect her limits and boundaries when incorporating touch. This will allow all parties to gain the maximum benefits of positive touch.

Dr. Jenn is a licensed Marriage, Family and Child Therapist in private practice. She is the author of the Los Angeles Times bestselling book The A to Z Guide to Raising Happy Confident Kids. Her "Dr. Jenn" column won the prestigious Parenting Publications of America award in Parenting and Child Development. She has appeared as a psychological expert on hundreds of television shows including The Oprah Winfrey Show, The Today Show, and The Tyra Banks Show. Dr. Jenn lives in Los Angeles with her husband and twin daughters. For more information on Dr. Jenn go to: www.DoctorJenn.com.

