

# A LINE ON LIFE

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## The Benefits of Touching \*

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April 15-22 is the **Week of the Young Child** in Yuma. Going along with the theme of that week – "*Good Beginnings Never End*" – this article will cover the effects of touching on infants.

It is clear that stroking can have a soothing influence on newborns. However, some fascinating new evidence indicates that touch does more than calm neonates. It may begin a complex chemical change in the baby's brain that helps the baby to grow and develop.

According to new evidence, touch has benefits that go well beyond expressing affection and developing an emotional bond. In 1988, developmental psychologist Tiffany field found that premature babies – who were massaged for 15 minutes three times a day – gained weight about 50% faster than other premature babies – who were not massaged and were left in their incubators. Their greater weight gain seems to be caused solely by the massaging they received. The massaged babies did not eat more than the others, so it seemed like the massaging made their **metabolism** – how well the baby uses the food – much more efficient.

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**Beside bonding and providing a good feeling,  
massages improve the physical development of the child.**

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Massage had other effects. Massaged children were discharged from the hospital earlier. The medical costs for the massaged children averaged \$3,000 *less* than for those children who were not massaged. In addition, the effects were also long lasting. After eight months, the massaged babies still weighed more than the controls. Beside that, they performed measurably better on mental and physical tasks than did the unmassaged babies. Touch seems to be a powerful factor in early growth and development.

A better understanding of what is happening with touching comes from a 1987 psychological experiment with rats. A group of rat pups were deprived of normal maternal contact. These pups neither gained weight nor developed as well as normally raised pups. The reason for this difference was traced to the increase in the brain chemical, **beta-endorphin**, which occurred during the mother's absence. (In humans, beta-endorphins are the brain's morphine linked to good feelings like the distance runner's "*high*.") Apparently, beta-endorphins not only lead to feeling better, but its production also slowed the pups' metabolism, which subsequently slowed the growth of the pups.

On the other hand, when the rat mother's touch was mimicked, the effects of deprivation were reversed by reducing the release of beta-endorphins. The baby rats were stroked with a wet paintbrush – similar to a rat mother's wet, rough tongue. The action led to an increase in protein production and weight gain by keeping beta-endorphin production at a lower level. Thus stroking seems to produce important biological effects.

However, with human infants, it is not just the touch that gives the beneficial effects of stroking. Researchers found that a gentle, slow, but firm touch was best. Too light a touch seemed to irritate infants. Of course, too heavy a touch can hurt the child. Added to this, different kinds of massage produced different effects. If you want to sooth an infant, a light massage or gentle strokes on its back or legs are beneficial. In contrast, the baby is more likely to be stimulated by stroking its face, stomach or feet.

Touch seems to be important in establishing a **positive emotional bond** between child and parent. In the mid-1970s, psychological studies indicated that there was a **critical period** to developing bonding with

touching. This critical period for skin-to-skin contact between mother and child was believed to be in the first few hours after birth. Since these results were widely publicized, many more hospitals started to allow immediate contact between newborns and their parents.

However, in the early 1980s, these studies were found to be flawed. The effects of the early critical period had not been separated from the length of contact. In other words, those parents who had early contact also had longer periods of overall touching after the birth. Also – even when the physical contact was not present during the first several days – the early differences found in touching and its effects did not seem to last after several weeks.

These results have special significance for parents who *cannot* have physical contact with their baby right after birth. For adoptive parents or those who missed out on early contact because of a newborn's illness, it is reassuring to know that bonding can be obtained at other times.

Clearly, touch plays an important role in the growth of infants. Evidence is increasing on the importance of touch in early life. Learning to massage an infant effectively may become as important as knowing what is the best kind of food for the child.

Whenever you begin – positive physical contact is a good beginning between parents and children. However, this is only one aspect of a life-long interaction. On the Yuma County Library lawn from 9:00 a.m. to 1:00 p.m. on Saturday, April 21, various agencies will be available to show you other ways to help maintain these bonds. In addition, they will have many activities for your children. Sharing these activities with your children might help to assure that your "*Good Beginnings Never End.*"

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\* Adapted from Robert S. Feldman's *Understanding Psychology*, McGraw-Hill Publishers, 1990, pages 428-431.