



GIVING INFANTS A HELPING HAND

By Sarah Van Boven/Newsweek

In between crusades and ideological battles with the pope, the Holy Roman Emperor Frederick II had time to conduct a little 13th-century-style child-development research. He removed a group of babies from their families and handed them over to nurses who attended only to their most basic needs—feeding but not holding them, bathing but not hugging them. Frederick wanted to learn what language the infants would speak if they never heard adults talk or sing a lullaby. He learned something else instead: the children all died. As one 13th-century historian explained, Frederick “laboured in vain... For they could not live without the petting.”

Fortunately, scientists now do more compassionate research. But their work with fragile neonates and classrooms full of romping preschoolers points toward much the same conclusion: touch is vitally important to the development of healthy, happy children. Whether bolstering the immune system or simply increasing communication between parents and children, an extra dose of cuddling and massage appears to have many positive effects.

At the University of Miami’s Touch Research Institute, director Tiffany Field can rattle off study after study on the effects of touch. Premature babies given daily massage gain 47 percent more weight and are discharged from hospitals six days earlier—at a savings of \$10,000 each in medical costs. Cocaine addicted and HI V infected newborns show lower levels of stress as well as better weight gain and motor skills with touch therapy. From colic to sleep disorders to hyperactivity, therapeutic touch seems beneficial. Says Field, “Most of us think touch only has psychological benefits, but it’s actually an important stimulus to the central nervous system.”

This stimulus works in several ways. Biological psychologist Saul Schanberg of Duke University found that newborn rat pups failed to grow when taken away from their mothers. Without regular maternal licking, pups showed decreased levels of important growth hormones. But when a lab assistant imitated the tongue strokes with a wet paintbrush, hormone levels rose and the pups resumed growing. Similarly, studies have shown that touch therapy can also lead to weight gain in human babies. “The pressure stimulates a branch of a cranial nerve called the vegetative vagus,” says Field. “It activates the gastrointestinal tract, releasing hormones like insulin.” The higher insulin levels make food absorption more efficient—and babies can grow faster. According to Field, touch also decreases stress. Infants who receive massage show lower levels of the stress hormone cortisol in their urine—a hormone that kills important immune cells at high levels.

Little 3 month-old Alexandra Reynolds doesn’t know anything about cortisol levels. She just knows that she likes the strokes her mother, Tracy Reynolds, is practicing on her chubby arms and torso during an infant-massage class at New York City’s 92nd Street Y. “At home I massage her after her bath, or when she’s a little crabby, and she calms right down,” says Reynolds as Alexandra coos and waves her fists, never taking her eyes off her mother. An estimated 10,000 parents learned baby massage last year, says Mindy Zlotnick of the International Association of Infant Massage. The association considers massage a way for parents to get to



know their babies' nonverbal cues, and for both to relax together. "I'm glad brain research is documenting the power of touch," says Ziotnick. "But for parents who take my classes, the baby's reaction is all the proof they need."

While Alexandra and her mother easily grasp the power of touch, the medical establishment isn't always quite as enthusiastic. Many doctors who heartily endorse the idea of extra hugs and back rubs stop short of prescribing regular massage for the purpose of helping babies to grow or reducing their stress. After all, touch research is still a relatively new field. Cautions Dr. Neena Moth, a pediatrician at London's Hammersmith Hospital, "It is very correct for the medical establishment to be skeptical. We're only at the beginning stage of addressing basic research questions." Still, more and more neonatal ICUs like those at Presbyterian Hospital in Dallas and the University of New Mexico Hospital in Albuquerque are beginning to utilize touch therapy, and the popularity of parental infant massage continues to grow. And if it doesn't accomplish anything else, touch research certainly gives parents a good justification for extra hugs and kisses.

Schanberg still laughs when he recalls his elderly grandmother's reaction to his discovery of a link between touch and growth. "She said, 'You went to Yale to get a Ph.D. and to get an M.D., and that's what you've learned? To touch a baby is good?' I told her, 'Grandma, sometimes science is slow.'" But after seven centuries, at least science is catching up with Frederick II.