



TENDER TOUCH

Infant massage helps babies find the connections that help them grow

In 1984, when Teresa Kilpatrick Ramsey's third and youngest child was five months old, a massage therapist friend who was visiting them had a great idea: Had Ramsey ever considered giving her son a massage?

At the time, Ramsey, a nurse by training, was working as the Perinatal Education Coordinator at St. Elizabeth's Medical Center in Dayton, Ohio. She knew a lot about infant care, but nothing about massage.

So she let her friend teach her the variety of stimulating and soothing strokes featured in the infant massage bible at the time—Frederick Leboyer's *Loving Hands*—until she got the hang of it.

Soon, she began to massage her son, David, every day, on a sunny spot on the living room floor. "As we got into the rhythm of it, he would open his body," she recalls.

After years as a nurse, Ramsey knew about infant eating habits, bowel movements and blood sugars, but this was new. "I had never seen a baby in such a blissful state," she says.

Inspired, Ramsey jumped to enroll when another friend opened a massage school around this time. She graduated in 1988 and brought her newfound expertise back to St.

Elizabeth's, where she started an infant massage program. Soon she saw that massage wasn't just helping the babies bliss out—it was helping them to thrive.

She looked for cold, hard facts to back this observation, and found them. For example, the Touch Research Institute (TRI) at the University of Miami School of Medicine found that massaged preemies, on average, gained 21 to 47 percent more weight than those not massaged. Massage also contributed to five to six days less of hospitalization, and \$10,000 less hospital costs for preemies.

"If you stimulate pressure receptors under the skin, you slow down the heart," says Tiffany Field, PhD, the TRI director. "You slow down blood pressure, you slow down

the release of stress hormones, and you facilitate growth hormones and gastric mobility. [Infant] massage is not just something that calms you down and makes you feel good. It also has significant impact on health."

It also helps to foster the bond between child and parent. "At birth, things mostly are done to the baby without any asking of permission," says chiropractor and massage therapist Debby Takikawa, producer and director of the film *What Babies Want*. This includes the nurses and doctors shining bright lights in the babies' eyes, suctioning their mouths, and rubbing them vigorously.

This abrupt transition from womb to world hinders the bonding process, says Takikawa. Instead, in the first few hours of life, the mother and baby should be making eye contact, smelling each other and listening to each other's voices. Massage can help repair this rift, most effectively by including the parents. "The child-parent bond is paramount," says Suzanne P. Reese, an educator and trainer in infant massage. "This is why the bond needs to happen between the baby and his or her family or primary caregiver."

Benefits for Baby

Although there are times when a professional will do the massage—on newly medically stable preemies in the ICU, for example, or infants with neurological damage, or going through withdrawal from illicit drugs, or when therapists are using specific modalities such as craniosacral work—most infant massage involves teaching the parents how to take over. "We are, in a way, midwiving this," says Ramsey, who eventually went on to establish *Baby's First Massage*, which trains and educates infant massage practitioners.

Typically, teaching a parent to massage his or her child involves several sessions with infant and parent (or parents), as the therapist slowly hands over the reins. Past AMTA President Brenda Griffith remembers teaching one nervous, first-time mom how to massage her newborn. "I did one leg while she did the other. I felt that both mother and baby needed that grounding," she

says. “By the end of the first session, I could see a difference. By the end of the third session, it was a piece of a cake.”

You can have the parent work on one limb as you work the other, as Griffith did, or you can work on a doll next to the infant, showing the appropriate touch and strokes. “Whatever makes everyone most comfortable,” Griffith says.

To this end, be articulate with the parents, and clearly express what you’re doing and how it benefits the child. Benefits may include colic relief, which is often the result of a highly sensitive system. Massage helps these children relax and moves the gas through the intestines. “Stress is the primary cause of digestion disturbances,” says Takikawa.

“Our culture is much too fast for babies, so we have to intentionally slow down to get to a place that’s healthy for them.”

Other benefits include soothing the muscle tugs that accompany bone growth—also known as growing



pains—and helping restless infants organize erratic sleep patterns.

Massage also benefits infants with Down Syndrome, where the child often has low muscle tone

and difficulty digesting. For children with cerebral palsy, massage helps to lengthen and relax muscles and improve the range of motion in the joints.

Older children benefit as well. “If you give a normal child a massage before a development assessment, he or she will perform significantly better,” says Field. Massage works on the vagus nerve, which stimulates the heart to slow down, a necessary step in focusing.

Massage also reduces cortisol, which can reduce depressive symptoms, and eases pain for ailments like juvenile rheumatoid arthritis. Massage seems to help even the sickest children, without side effects.

“When you reduce cortisol, you are enabling immune cells to survive,” says Fields. These are the natural killer cells found on the front lines of the immune system, and help fight serious diseases such as cancer, as well as the more common childhood ailments such as asthma, dermatitis, even diabetes, where glucose levels decrease. And no data exist, says Fields, that show any increase in cancer cells through massage.

Setting the Scene

For these results to occur, however, you need to create a soothing, non-stimulating environment. For preemies, the stakes are even higher. Ramsey mimics in-utero conditions for her most fragile clients.

“Wrapping babies in a blanket gives them the same boundaries as the uterus,” she says. The baby’s limbs can be unwrapped as needed. Or she keeps one hand

on the baby at all times, so the baby feels secure. Or you might massage a breast-feeding baby, secured in his mother’s arms.

The massage therapist must feel secure, too. “Start in a very slow, calm, settled core state of being,” Takikawa says. “If you approach the infant in any other place, it’s questionable—in my mind—how much good you do that baby.”

Follow your common sense. Stay away from tender spots, such as areas that have recently received shots or IVs. Since sounds in the uterus are muffled, except for the mother’s heartbeat, use music with great discretion, if at all.

For most infants, the human voice is best. “It’s really about the human interaction, and about the sensory development of the baby,” says Rosemary White-Traut, DNSc, RN, a professor at the University of Illinois at Chicago. “If you add a massage to an environment that is already chaotic, it overstresses the baby.”

So keep things mellow. Place your face within 7 to 12 inches of the baby’s face, where they can see the best. Don’t use flavored or scented oils. “Infants have noses like bloodhounds,” Reese says. She says no mineral oil, either, which is “like wrapping a baby in cellophane.”

Instead, use edible, all-natural fruit or vegetable oil, unscented and unflavored. Taste is important since babies suck on their hands and toes and on the massage-giver’s hands and fingers. Reese recommends pharmaceutical grade oil for preemies, because the protein content in a typical fruit or vegetable oil is too high for their thin skin.

The next step? Use the right touch. Studies show that moderate pressure is required for full benefits. “Light stroking is a tickle sensation and does not lead to [benefits],” Fields says.

Baby Knows Best

Fields instructs massage practitioners to look for a slight color change when working with Caucasian children, and a slight indentation when working with non-Caucasians.

And let the baby give you feedback. “If your touch is too light, the baby will give you signs that he is not comfortable,” she says.

Don’t err on the side of too much pressure, though. Make good contact, Ramsey says, but don’t drag on a newborn’s skin. “You have to be very careful with the pressure amount,” agrees Griffith. “There are no broad strokes with a baby—it’s all very delicate and precise.”

The infant will give you feedback, typically through signals, such as putting an arm up when you reach for his or her face. This means “no,” says Takikawa. Eye contact, or lack thereof, is another signal. “If an infant doesn’t make eye contact with you, it means ‘I’m not ready for direct connection,’” she says.

Respect these signals. “If an adult turns his head away, you don’t rush around to the other side and put your face

into his face," Takikawa says. "You wait for them to come back and make eye contact."

Simply slow down the massage, or your pace. The first time Takikawa worked with an infant, when she reached out and touched the infant's head, the child threw up her arms and hit Takikawa's hand away.

"I felt like a complete idiot," she says. "I took my hand back and thought, 'I'm a terrible therapist.' But I overcame that quickly." Instead, she said to the child, 'I'm so sorry, I think I put my hand up to your head too quickly and you weren't ready for it.' The infant turned her head back and made eye contact.

Treating the infant with respect will get you the best results, agrees White-Traut "Approach the child as you would approach an adult," she says. "Talk to the baby first." Specifically, use the child's name, and alert the child that someone is with him or her. Then, she recommends saying the following: "Are you ready for your massage?" Or, "We're going to do your massage now."

Observe the child's response. A baby who is looking away from you or avoiding your gaze, or pushing away, frowning or crying is a baby who is not enjoying the massage and should not be receiving one.

Wait it out. "If you never get the go ahead from the infant and you sit without making contact for a whole session, you will have given that infant such a gift," Takikawa says. "Many babies have been really hurt at birth, and the idea of having a professional touch them can be terrifying. You don't make it less terrifying by overriding their signals of fear. You get past it by acknowledging it in a respectful way."

Instead, keep talking and see if the child can come back to you. Make sure that you introduce different stimulations one at a time. "Use a gradual progression, so the child can accommodate a new sensory stimulation," says White-Traut.

Make sure you also tend to the parents' needs, especially since babies pattern their nervous systems on the mother's and those directly affecting the mother.

"It's better for human development if infants are surrounded by a state of peace," Takikawa says. The greatest service you can do for a baby, she says, is to help the mother settle in her body. "Just having the mother sit there and breathe with you. Or look at her every five minutes and make eye contact, or ask her how she's doing, or touch the mother's foot with yours and ask her to take a breath," Takikawa says. "She may not get it the first session, but by the third or fourth, she'll be releasing with the baby."

You'll benefit as well. For one thing, the skills you learn can be transferred to nearly any of your clients.

"Everything in infant massage is transferable to an adult," says Ramsey. For example, she used the same techniques on a man going through job stress. "It's a very protective form of massage," she says. "He was too tense to be able to take in all the variety of massage strokes that are stimulating to muscles and the nervous

system." She even "swaddled" him, tucking him in a sheet. And elder massage is simply a spin-off of infant massage, she says.

Perhaps most profound, however, is this: Infant massage becomes a spiritual experience for everyone involved. "I teach listening touch as part of my [infant massage] workshop," says Ramsey. "It's about using your hands like ears to pick up all kinds of information."

First, you'll feel the temperature, she says, the softness, the moistness— simple data collection. Then it happens. "Babies listen with their skin—they listen to your listening.

They begin to give back," she says.

"Try it for 10 seconds—really listening with your hands. It's a blissful experience."

CranioSacral Work on Infants

"Birth is not an easy process," says Rebecca Flowers, OTR, SCP, CST-D, a CranioSacralSM practitioner with the Upledger Institute in Palm Beach Gardens, Florida. "Whether it's an 'easy' delivery or not. Often the types of problems that manifest later might have been minimized or possibly avoided if we could have worked on that child as an infant."

These issues may include learning disabilities, attention deficit disorder, hyperactivity and some of the autism spectrum type of disorders, including sensory integration dysfunction.

CranioSacral work is suited for infants, says Flowers, in part because the gentle, light touch is so noninvasive. "All of [a baby's] senses are very acute," she says.

The work gives the body gentle help in correcting itself. "When we do cranio work we're facilitating the body to make corrections that it inherently tries to do all the time," she says.

The key, though, is early intervention. "The baby brain is thousands of nerve tracks waiting to get plugged in since the body, in what it does very best, is trying to correct itself all the time," she says. "The younger the child, the more rapid the change."

Flowers says cranio work helps with everything from motor skills to social skills to sensory processing issues. And nearly every baby can benefit, says Flowers, simply because birth— and pregnancy—can be so difficult. "Often problems might have started with the position in utero, or through genetics, or the mother's exposure to toxins in environment, or in her biochemistry, such as toxemia or diabetes."

Flowers says that CranioSacral also works with tissue memory. "The body retains memory, not only in the cortex of the brain, but in every cell of the body which can manifest as contracting itself around life experiences," she says. Ordinary traumas such as pricks for blood samples to IVs to shunts to intubations can cause the body to contract.

"There is thought and feeling that gets contracted in the tissue, as well as the literal contractions," says Flowers.

“When an infant has a problem that has been unaddressed—whether from birth or interventions after—it utilizes a lot of the body’s energy.”

As the child gets older, the symptoms begin, which can show up in the common cold or ear infections. In fact, says Flowers, CranioSacral work is especially effective for ear infections. “When we see a child with an ear infection, you can usually trace it back to the birth,” she says.

Flowers says that John Upledger, who founded the form of CranioSacral work that she practices, maintains that immediate CranioSacral work on newborns would prevent or minimize 80 percent of common childhood ailments, including ear infections, allergies, reflux, colic and hyperactivity.

Although many massage therapists practice CranioSacral work, it’s actually a gentle, osteopathic manipulation of the head, spine and body that deals directly with the central nervous system. It works well, however, with massage therapy.

“CranioSacral Therapy can be a stand-alone modality, or it can be woven into almost any other alternative practice,” Flowers says.

You’ll get best results as a trained CranioSacral practitioner, especially when working on children, where the palpation is much more subtle than with adults. Babies also tend to wiggle a lot more.

“CranioSacral work is a foundational way of facilitating change in the central nervous system, which controls all the other systems, including respiratory, cardiac, and digestive,” Flowers says.

10 Trials that highlight How massage benefits children

1. Infants who received massage therapy compared to those who were rocked experienced greater daily weight gain; more organized sleep/wake behaviors; less fussiness; improved sociability and soothability; improved interaction behaviors; and lower cortisol and norepinephrine and increased serotonin levels.

(Field T, Grizzle N, Scafidi F, et al. “Massage therapy for infants of depressed mothers.” Infant Behavior and Development. 1996: 19, 109-114.)

2. Cocaine-exposed newborns had fewer postnatal complications, increased weight gain, better performance on the Brazelton Neonatal Behavior Assessment Scale (particularly on the motor scale), and less stress behaviors following 10 days of massage.

(Scafidi F, Field T, Wheeden A, et al. “Cocaine exposed preterm neonates show behavioral and hormonal differences.” Pediatrics. 1996: 97, 851-855.)

3. Cocaine-exposed preterm neonates who were massaged averaged 28 percent greater weight gain per day, showed significantly fewer postnatal complications and stress behaviors, and demonstrated more mature motor behaviors on the Brazelton examination.

(Wheeden A, Scafidi FA, Field T, et al. “Massage effects on cocaine-exposed preterm neonates.” Journal of Developmental and Behavioral Pediatrics. 1993:14, 318-322.)

4. Depressed mothers increased their infant’s positive affect and attentiveness by providing touch stimulation.

(Pelaez-Nogueras M, Field T, Hossain Z, Pickens J. “Depressed mothers’ touching increases infants’ positive affect and attention in still-face interactions.” Child Development. 1996:67, 1780-1792.)

5. Teenage mothers who received massage therapy compared to those who received relaxation therapy were less depressed and less anxious both by their own report and based on behavior observations. In addition, their urinary cortisol levels were lower and their serotonin levels were higher, indicating they were less stressed and less depressed.

(Field T, Grizzle N, Scafidi F, Schanberg S. “Massage and relaxation therapies’ effects on depressed adolescent mothers.” Adolescence. 1996: 31, 903-911.)

6. Infants with Down Syndrome improved in muscle tone and in performance on motor tasks following massage therapy.

(Hernandez-Reif M, Ironson G, Field T, et al. “Children with Down Syndrome improved in motor function and muscle tone following massage therapy.” Journal of Early Intervention. 2006: 176, 395-410.)

7. Fathers who gave their infants daily massage 15 minutes prior to bedtime for one month showed more optimal interaction behavior with their infant.

(Cullen C, Field T, Escalona A, Hartshorn K. “Father-infants interactions are enhanced by massage therapy.” Early Child Development and Care. 2000: 164, 41-47.)

8. HIV-exposed newborns who were given massage showed increased weight gain and improved performance on the Brazelton Newborn Scale (motor and state scales).

(Scafidi F, Field T. “Massage therapy improves behavior in neonates born to HIV positive mothers.” Journal of Pediatric Psychology. 1997: 21, 889-897.)

9. Children with mild to moderate juvenile rheumatoid arthritis who were massaged by their parents 15 minutes a day for 30 days saw their anxiety and cortisol levels immediately decrease. Over the 30-day period their pain also decreased, based on self-reports, parent reports and physician’s reports.

(Field T, Hernandez-Reif M, Seligman S, et al. “Juvenile rheumatoid arthritis: Benefits from massage therapy.” Journal of Pediatric Psychology. 1997: 22, 607-617.)

10. Massage reduced spasticity, and increased muscle flexibility, motor function and positive social interaction in children with cerebral palsy.

(Hernandez-Reif M, Field T, Largie S, et al. “Cerebral Palsy Symptoms in children decreased following massage therapy.” Early Child Development and Care. 2005: 175, 445-456.)

For more info or to schedule infant massage lessons or a CranioSacral session for your baby, call Certified Somatic Therapist Karen Axelrod at 310-376-0113.



This article was written by Clare La Plante for Massage Therapy Journal.