

The Power of Touch

Understanding the Body-Brain Connection

By Cathy Ulrich

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I can't tell you how glad I was to see your name in my calendar this week," said Elaine as she rushed into my treatment room. "I've been really stressed at work -- the timing's perfect for a session."

"Any specific areas you want me to check today?" I asked.

"I guess mainly my neck and shoulders, whatever you find," she said.

She lay down on the table, and we both took a deep breath as I gently contacted her neck with an open palm. Before long, she was breathing deeply, relaxed and calm, on the verge of sleep.

A single mom with teenagers, Elaine's life revolves around work and caring for her kids with little time for herself -- and very little time spent receiving touch from another human being. When a friend gifted her with a bodywork session a year before, Elaine found that this single session had done more for relieving her stress than a week's vacation. Since then, she's been coming regularly for monthly sessions. We work out the kinks in her body, but more importantly, she gets touch in a safe environment -- nurturing that goes beyond getting rid of physical pain.

Bodywork and relaxation go together, but why? What is it about an hour-long bodywork session -- even one focused on pain relief or structural alignment -- that creates such a sense of well-being, calm, and energy? Why do we as human beings crave the touch of another?

Whether in giving or receiving, touch is as essential to human survival as is food. Infants deprived of touch, even when they are getting adequate nutrition, will fail to thrive. Elders isolated by loss of partners and friends become depressed not only because of the absence of social interaction, but also because of the simple loss of being touched.

We calm our pets by stroking them, we greet each other with a hug or a handshake, and we soothe our children by holding them. No other form of connection is as powerful and universal as touch.

Skin and the Brain

The adult human lives inside an envelope of about 18 square feet of skin. Every square inch houses thousands of nerve endings and various kinds of sensory receptors, all working to tell the brain about its surroundings. The cold of an ice cube, the softness of a cat's fur, a warm breeze, the caress of a loved one -- all of these feelings are possible because of our skin.

Oil versus water, hot versus cold, dull versus sharp, wet versus dry -- our skin tells us about our environment and ourselves. When we touch something with our fingers, we're not only sensing the object, we're also feeling our own skin, our own boundaries.

In the first few days of an embryo's life, the cells that eventually become a fully formed baby divide into three layers. The endoderm (inside layer) eventually becomes the internal organs, the mesoderm (middle layer) becomes the muscles and bones, and the ectoderm becomes the skin and nervous system. The brain and skin come from the same layer, and they develop together, not only before birth, but well into the first year of life.

When a baby is held, cuddled, and breast-fed, she's getting crucial stimulation to build neural connections between her skin and her brain. By receiving touch from family or caregivers, she in turn learns how to touch and can then explore the world and her relationship to it. Touch during these early formative months builds our complex and sophisticated nervous system so that throughout life we can feel an extensive variety of textures and temperatures and be able to locate exactly where on our bodies this touch occurs.

Lab studies have shown that animals given regular stroking and petting develop larger brains, stronger bones and muscles, better immune systems, and remain healthier as adults than those deprived of touch when young.

Study after study has shown that touch is not only important for development, but is crucial to survival. James H.M. Knox of Johns Hopkins Hospital reported in 1915 that babies left in orphanages and given proper nutrition died at a rate of about 90 percent. Other studies of the same era confirmed these findings and showed that those babies who did survive were often mentally handicapped and stunted in their growth. These valuable studies helped institutions understand the importance of touch. When staff was added to provide enough time for each child to be held, handled, and touched, mortality rates dropped

dramatically.

Touch and Children

Those early statistical studies showed how vital touch is to developing infants. Researchers are also finding that giving massage to premature infants can improve their growth and overall health. A study conducted by the Touch Research Institute (TRI) at the University of Miami found that when stable premature babies were given five, one-minute massages a day, they gained 47 percent more weight than their counterparts who didn't get massage.

Many massage schools now offer courses in neonatal massage, and most hospitals include some kind of program to introduce nurturing touch to hospitalized infants. Here, nurses, therapists, and parents are trained to give massage to premature babies so they get the necessary stimulation for optimal development without stressing their delicate systems.

While most infant studies involve preemies, a 2001 study conducted by TRI showed that when mothers gave their infants a 15-minute massage before bedtime, these sleep-challenged kids went to sleep more quickly and were more alert during daytime hours. The list of studies goes on and on, but what's most important to remember is that infants need touch to develop healthy nervous systems.

As kids grow up, they continue to need touch. Many school systems forbid teachers from touching kids for fear of litigation and the busy lifestyles of kids and working parents often keep kids from getting the touch they need.

Touch deprivation may lead to early and inappropriate sexual activity or inappropriate peer touching instead of wholesome touch from parents, grandparents, teachers, and friends. The 1980's advertising campaign "Have you hugged your kid today?" still has relevance when viewed from this perspective.

Clinical research and sociological studies link touch deprivation with aggression. A 2002 study reported that adolescents with a history of aggressive behavior showed less aggression and were less anxious after receiving a 20-minute massage twice a week for five weeks.

Massage also reduces the symptoms of Attention Deficit Hyperactivity Disorder so kids can concentrate better, and it's even been found that the right kind of touch can help kids with autism relate better to teachers and family members.

Touch and Adults

Ongoing research by The Touch Research Institute continues to prove that massage is an important therapy for many conditions. After a massage, levels of the stress hormone cortisol drop in saliva tests, examinations show an improvement in alertness and relaxation, depression scores decrease, and mental focus improves.

The exponential growth of the bodywork field is a testament to the value of safe, therapeutic touch. Of course bodywork can play an essential role in the healing of specific chronic or acute orthopedic conditions, but it also serves as a powerful aide in improving the quality of life for adults.

My client, Stan, was going through a nasty divorce. His wife of several years announced that she no longer loved him. He had friends to support him emotionally, but it seemed that the thing he missed the most was the nurturing touch of his partner. When he finished his Rolwing series with me he seemed anxious about leaving my care.

I recommended that he continue getting regular massages with a massage therapist. "It's really important that you get regular therapeutic touch through this process and, of course, keep working with your counselor," I said.

A few months later, he called to give me a report: "I'm so glad you recommended Doris. I've seen her weekly while continuing with my counselor. We both agree that the massage has made the difference in helping me to get past all this. I would have never realized how important massage was had you not suggested it."

We often equate the need for physical closeness with the need for sex, but anyone who's been in a close, long-term relationship understands that as time goes by sex becomes less frequent, however the need for nurturing touch remains strong. For those not in a relationship, massage can be a healthy way to get that much-needed human contact.

Touch and Elders

Isolation, loss of loved ones, loss of home and independence -- we often think of these things as primary causes of depression in the elderly, but what about the loss of human touch? People confined to nursing homes rarely get more than daily hygienic care and the stigma of touching elders seems to contribute to their physical isolation.

Elders need touch as much as infants, studies show that when they receive regular massage, the elderly have less depression and anxiety, experience better physical coordination, and show a decrease of stress hormone in their saliva. One study showed

that elders who participated as volunteer grandparents in a program to give massage to abused infants experienced the same benefits as when they themselves received massage. Simply by giving touch, they were able to improve their own health.

Geriatric massage is a growing field requiring specialized training and many massage therapists offer it in their practices. Some nursing homes now provide massage to their residents. In my own work, I've found that elders respond as well to the bodywork, if not sometimes better, than their younger counterparts.

Touch for All Ages

I love to walk through a sculpture garden near my home. As I enjoy a sculpture, I'm reminded of our primal need for touch, as here and there I'll see a spot of patina worn by the hands of numerous visitors. It's as if by touching, we bring that object into our being in a way that helps us fully understand it.

Not only do we need to touch, we need to be touched. In the early months before babies learn about their hands, feet, toes and fingers, they need the touch of parents, caregivers, and family to develop. We retain that need our entire lives.

Remember to savor touch the next time you're lying on a massage table. Your therapist is not only working out tight muscles, she's contacting your entire nervous system, communicating with you, calming you through pathways that were put in place before you were born.

Cathy Ulrich is a bodyworker with more than 20 years of experience. She practices Rolfing and physical therapy in Colorado and can be contacted at cathy@circleofbeing.com.