

# The Primacy of Human Touch



levels, fewer symptoms of depression, and improved self-esteem.

Why is touch so powerful? What magical events transpire when skin contacts skin? And what is the connection between physical human contact and virtually every aspect of health and well being?

**A** hundred years ago, about 99% of babies in orphanages in the United States died before they were seven months old. Orphanages were an everyday part of the social landscape. Unwanted babies were deposited in these institutions, where modern antiseptic procedures and adequate food seemed to guarantee them at least a fighting chance for a healthy life. But the babies died, not from infectious diseases or malnutrition; they simply

wasted away in a condition called “marasmus.” Sterile surroundings

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didn’t cure it; having enough food made no difference. These babies died from a completely different kind of deprivation: lack of touch. When babies were removed from these large, clean but impersonal institutions to environments where they received physical nurturing along with formula, the marasmus reversed. They gained weight and finally began to thrive.

Touch is vital for survival in the very young. Everyday in our nation’s hospitals sick and premature infants, isolated in sterile environments, are given the touch therapy of massage for fifteen minutes, three times a day.

Sometimes they are just taken out and simply held and rocked by hospital volunteers. Although these babies are given exactly the same amount of food as others, they grow faster, gain more weight and leave the hospital sooner than their untouched counterparts.

But that’s not all! The “volunteer grandparents” who give their time to massage, touch, hold and rock these babies also experience significant benefits: they drink less coffee and make fewer trips to the doctor. When they regularly massage babies, they also have lower anxiety

## Where Touch Begins

The sensation of touch actually begins in the womb. The skin, derived from the same cells as the nervous system, is a perfect instrument for collecting information about our surrounding environment long before birth. A fetus will withdraw from the touch of a probe at less than 8 weeks of gestation, showing that the link between touch and survival is one of the first and most important protective mechanisms to develop.

Did you know that all human babies are born before they are developmentally ready? Our heads are so big that we can’t afford to gestate any longer than we do, so we are born before we are physiologically ready. Most other mammals are able to move around, at least in a limited way, very soon after they are born. Think of newborn foals or deer, which are up and walking a few moments after birth.

Humans, on the other hand, are incredibly slow. In fact, the average time between birth and crawling is identical to the average time between conception and birth: nine more months. What does all this have to do with touch? Simply this: newborn human infants are not fully developed. They can’t see clearly, or differentiate sounds. They communicate with the world almost entirely through their skin.

Consider a newborn baby. One moment it is supremely comfortable, in a snug, climate-controlled, perfectly shaped uterus. The next moment it is painfully squeezed into our bright, noisy, cold, wall-less world. All babies, perfectly healthy ones and others who suffer from colic

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to cocaine exposure, AIDS and abuse, benefit from regular touch. Stress, as measured by chemicals in the blood, is reduced; babies cry less, sleep more and are generally easier to soothe. What the studies show makes sense: the messages we received through our skin, particularly about our safety and well-being, will have resonating effects on our behavior for the rest of our lives.

Even older babies who are not yet crawling use their skin as a way to get information about the world. Watch a baby explore a new toy: the first place it goes is into the baby's mouth. This baby is not really interested in how the rattle tastes.

It happens that a huge number of sensory neurons are located in the skin of the lips and tongue,

and this is where a baby gets his or her information. A baby puts a new toy into its mouth to find out what it feels like!

## Infants and Touch

Many experiments with lower mammals have been conducted to explore the connection between the touch they receive in infancy and their adult behavior. The results are



clear: the way an infant is touched, even in its first few hours of life, influences whether it survives, and how it copes in the world as an adult. Some examples include the way infant rodents and other mammals are licked by their mothers. This skin to skin contact stimulates the physiological reactions necessary for survival. Without the stimulation of touch, the babies die. Recent research also shows that baby rats, taken away from their mothers, suffer measurable brain damage: cells in the central nervous system actually degenerate and fall apart without their mothers' touch. Furthermore, baby rats that are removed from their mothers will in

turn not mother their own offspring: early nurturing through touch is vital to the survival of the species!

Consistent nurturing touch in infancy has also been shown to influence later coping skills. When nurtured young monkeys, who have previously been placed in stressful situations, approach new situations they do so with curiosity and a kind of tentative courage. When introduced to a new enclosure, for instance, they will explore it by degrees, frequently retreating to hug mom's leg for reassurance. Then they will venture forth again and again until they feel comfortable in their new surroundings.

Baby monkeys that are raised without comforting, nurturing touch don't have that source of security and assurance. They are easily overwhelmed by new experiences. Placed in an unfamiliar environment without a sense of safety, they simply collapse in hysterical screams. They can't cope

with challenging or threatening situations the same way that their touched and comforted cohorts can.

Many other studies show that children who are welcomed with

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lots of physical touch and tactile stimulation tend to grow into well-adjusted, capable and loving adults. Children who are touch-deprived in infancy show tendencies toward aggressiveness and violent behavior.

Naturally, there are countless other variables that influence human behavior besides how we are touched as babies. But it does make sense that during this most vulnerable time of our lives we would form patterns and expectations about how the world works, specifically, about how safe and valued we are in the world, through our skins.

What we can do is attempt to include more nurturing touch in the lives of our infants, our children, teenagers, our elders and ourselves. As we grow and develop, our need for touch does not disappear. We continue to benefit from the touch we receive from those who love and care about us. A wide range of body therapies offer another avenue for receiving the benefits of human touch; they can dissipate accumulated stress and activate relaxation within the body. Touch therapies offer a way to integrate the benefits of human touch in our lives.

*Authored by Ben Benjamin, PhD and Ruth Werner, LMT*

# R U N N I N G

**A**lways do warm-up exercises before you run. The different exercises you do should remain constant throughout the year, but the length of time you spend on them should be adjusted to correspond with the season, the temperature, and the vulnerable areas of your body. For instance, if you run outside when it's cold, warm up for a longer period of time. If you have knee problems, spend more time on the floor warming up your joints before standing up. In the event that you can't warm up fully, jog very slowly with your feet barely leaving the ground for the first five to ten minutes before picking up any speed. Do your daily running, as opposed to racing, at a comfortable speed.

You should be able to talk and have a conversation while you run. If you can't, you are running too fast. Slow down.

Try to run with the feeling that you're floating and barely touching the ground. Roll through your feet from heel to toe. Don't slam down on your heel; land softly. Don't run flat-footed and, as you are running, try to keep your feet and knees parallel.

The safest running surfaces for your legs are earth and grass; the next safest are indoor tracks. These absorb some of the shock to the legs. Concrete is the worst surface to run on because any vulnerabilities to injury can be aggravated. If you do run on concrete, run slowly and low to the ground to minimize the impact. Running on tar and asphalt is preferable to concrete.

– Benjamin

## STITCH PAIN

Clients often say to me, "I frequently get a stitch pain in my side when I run. What does that mean?" A stitch pain in the side results from a spasm of the diaphragm, which is the muscle primarily responsible for breathing. It usually results from demanding too much work from your breathing apparatus without preparation. If you begin to run when you are especially tense, the diaphragm tends to quickly reach its metabolic limit. When this happens it contracts, which is a painful way of telling you to stop. Unless you're very tense, a proper warm-up will usually eliminate stitch pain completely. Stitch pain can occur

even though you do the same activity at other times without any problem.

The next question usually

is, "Should I run through it, or stop?" Running through a stitch pain is not a good idea. More fibers of the diaphragm muscle can become involved, and doing this might cause you to strain the diaphragm.

I suggest that you walk or jog very slowly for four to five minutes to see whether or not the spasm releases. If the pain is gone, then slowly increase your speed. If the stitch pain does return, stop! Your body is telling you that you've had enough.

– Benjamin

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## A THOUGHT FOR RUNNING...

***You need to keep in mind that when you run you hit the ground with 3-5 times your body weight every time your foot hits the ground. Multiply that by hours of running and thousands and thousands of foot strikes and it's a lot of wear and tear.***

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