The skin is the largest organ of the body. Under a piece of skin the size of a quarter, says Dr. Tiffany Field, you will find over a million cells, three feet of blood vessels, hundreds of sweat glands, and fifty nerve endings.

The sense of touch develops before any of the other special senses *in utero* and has been called “the mother of the senses.” We can live without sight or hearing, but cannot survive without the sense of touch. The skin gives us vital signals about the temperature, pressure, texture, and shape of objects in our environment and helps us orient in space. It also provides a kind of nourishment that is both psychological and physiological. “The need for tactuality is a basic need,” says Ashley Montague (1986), “since it must be satisfied if the organism is to survive” (p. 189).

Through positive, adaptive touch, we are connected to the world and the people around us. Touch can be integrating, and touch can be healing. Evidence for the importance of touch is, according to Montague, “unequivocally clear: tactile experience plays a fundamentally important role in the growth and development of all mammals thus far studied,” especially for humans (p. 186).

The tactile system is intimately linked with all other sensory-motor systems. Adaptive tactile stimulation (pleasant, enlivening touch) awakens the whole person – alerting the mind, focusing attention, and preparing the body for interaction with the environment. Health benefits of adaptive touch include improvement of circulation, elimination of waste, reduction of swelling, soothing of the peripheral nervous system, and alleviation of pain. Many of these effects apparently occur through an alteration of brain functioning. “Touch,” says Field (2001), “stimulates the central nervous system into a state of relaxation. Anxiety and stress levels, both behavioral and biochemical, are then reduced and the general effect is a relaxed, more attentive state” (p. 17).

In the last two decades, scores of studies have been performed on the therapeutic effects of touch under the auspices of the Touch Research Institutes, directed by Dr. Field. All of these studies indicate that touch can indeed increase alertness and concentration, reduce stress, and improve mood. Following are highlights of a few of the studies pertaining to alertness, behavior, and cognitive functioning, as summarized in Field’s book, *Touch* (2001).

1. **Preschoolers & autism**
   Following a 10-day period of massage, young children with autism showed increased ability to relate to their teachers, and a decrease in disruptive behavior. In a follow-up study, parents massaged their children every night. The same results were obtained as in the first study, and an improvement in sleep patterns was also observed.

2. **Adolescents & ADHD**
   Teens with attention disorder were assigned to either massage therapy or relaxation therapy. The massaged individuals rated themselves as happier after the treatment period, and showed less fidgety behavior in the classroom compared to the relaxation group. Teachers, who were blind to their students’ treatment assignments, rated the massaged students as spending more time on their work, noting significantly fewer hyperactive and problematic behaviors.
3. Abused and neglected children
Children living in a shelter were assigned to two groups: one received daily 15-minute massages for a month; the other listened to Dr. Seuss stories. The massaged group had improved sleep, increased alertness, and less depression compared to the children who listened to the stories. Caregivers also reported that the massaged children were more active and sociable.

4. Post-traumatic stress disorder (PTSD)
Following Hurricane Andrew in 1995, a group of children in Miami (which had been devastated by the storm) received one of two treatments: twice weekly massage therapy or watching relaxing videos. The massage group, but not the video-watching group, showed decreased symptoms of PTSD, decreased depression, and decreased anxiety.

5. Child & adolescent psychiatric patients
Young patients in hospital for mental disorders either watched relaxing videos or received back massages for a week. Nurses rated the massage group as more cooperative and less anxious than the video group by the end of the week of treatment. The massaged individuals also had decreased anxiety and depression, fewer stress hormones (salivary cortisol, urinary cortisol, and urinary norepinephrine), and better organized sleep patterns.

6. Mathematical processing
Staff and faculty at a medical school received 15-minute chair massages during the lunch hour. Rather than the drowsiness that might have been expected after receiving a relaxing treatment, the subjects reported heightened alertness. They also showed more efficiency in math computation, improving in both speed and accuracy after massage.

General results
While massage therapy provides special benefits for individuals with particular health conditions (for example, increased peak flow in asthmatics, or decreased glucose levels in diabetics), certain results are found in common among a variety of subject groups:

- Decreased anxiety and depression
- Decreased stress hormone levels
- Decreased physiological arousal
- Improved immune function
- Increased vagal activity, leading to relaxation, reduced heart rate, and enhanced alertness

Brain wave changes occurring during massage involve a shift from right frontal activity (typically seen in depressed people) to left frontal activity (typical in happy people). Other electrophysiological changes include decreased alpha and beta wave production along with increased theta wave production. These changes are associated with a state of restful alertness. Combined with a decrease in stress hormones (cortisol and norepinephrine) and an increase in mood-elevating neurotransmitters (serotonin and dopamine), the psychological result is a feeling of contentment and well-being.

Touch and somatics
For all of these reasons, adaptive tactile stimulation can play a key role in mental as well as physical health. Touch has found its place in the human potential movement, not only as its own somatic art (therapeutic massage) but also as a modality within other somatic arts. Hanna Somatics, for example, utilizes touch through the technique of self-palpation – using one’s own
hands and fingertips to locate certain muscles, to assess muscle tone, and to feel changes during and after somatic exercises. This kind of touch fulfills the two somatic goals of increasing awareness and improving function.

Yoga organizations, too, acknowledge the value of touch – making massage available for students and visitors to their centers. Some even include massage training among their course offerings. The Integral Yoga Institute, for example, lists “Thai Yoga Massage” workshops regularly at its headquarters in Buckingham, Virginia. The Transcendental Meditation (TM) program, in addition to recommending self-massage before bathing and before asana practice, encourages therapeutic massage through seasonal Panchakarma treatments. At the Expanding Light in Nevada City, massages are made available to visitors and course participants through a neighboring wellness center. In addition, twice-daily yoga sessions include a brief self-massage (described below under Energization Exercises).

Massage serves to relax and to heighten self-awareness. It improves circulation and mobility. As a result, it increases energy and alertness. These effects are, of course, the purpose of somatic exercise and all of yoga. As a far-reaching and enlivening somatic modality, mindful touch can make enormous contributions to your growth and well-being. Experiment with incorporating positive, adaptive touch into your day. See what healing, awakening effects you can bring to yourself and others in your life.

**Home practice ideas**

*Abhyanga*. Before your morning bath, try giving yourself a gentle massage with a small amount of sesame, olive, or coconut oil. Make rotary motions over your head and neck, using the palms of your hands more than your fingertips. For your limbs, make circular motions over the joints, and straight up-and-down motions on the long bones. This massage can take two to fifteen minutes, depending on your inclination and your schedule for the day. If you are a little low or feel an infection coming on, treat yourself to an extra-long massage, with warm oil if possible.

*Acupressure*. According to Chinese medicine, special points on the body are connected to specific organs and systems through “meridians,” or lines of energy. Michael Reed Gach lays out self-treatment sequences for common ailments in his *Acupressure’s Potent Points* (1990). While all of these sequences are by nature somatic and thus ideal for the general purpose of enhancing awareness, a few points for relieving chronic fatigue are listed below. (Quotes describing each point are from Gach’s text.)

**Bigger rushing**. “On the top of the foot, in the valley between the big toe and the second toe” (p. 163). You may sit or lie down to press this spot with your finger or thumb; Gach recommends placing one heel on top of the other foot, in the groove between the bones of the big and second toe, and rubbing up and down in the groove.

**Sea of Energy**. “Three finger widths below the belly button” (p. 50). This point can be pressed by placing the middle fingers of both hands between your navel and the pubic bone. Or you can stimulate this point in concert with another potent point – pressing your left fingertips on Sea of Energy while your right middle finger lightly touches the Third Eye Point, described below.
**Third Eye Point.** “Directly between the eyebrows, in the indentation where the bridge of the nose meets the forehead” (p. 104). This point often is massaged in combination with other points, such as Sea of Energy described above. To focus on this point alone, touch the point lightly with one fingertip, or bring your palms together, pressing your index fingers gently into the point.

Usually each point is held or stimulated for one or two minutes, as comfortable. Whatever points you use, Gach emphasizes breathing deeply and with awareness to give yourself the maximum benefit.

**De-stress, at home or on the go.** When tension or fatigue accumulate, sometimes no technique is needed beyond simply massaging whatever part of your body feels tired, sore, or stiff. Perhaps this is how the different arts of massage came into being: people in states of discomfort or imbalance naturally pressed, kneaded, and stroked areas of the body in response to a felt need. With careful practice and observation, whole systems of healing touch could have arisen. You may not invent a complete system of self-care, but you can move far on the path of self-awareness through simple, spontaneous self-massage as and when needed.

**Energization Exercises.** Yogananda included three massage techniques in his Energization routine:

- **Skull tapping.** Lightly rap your knuckles over the top, side, and back of your head.

- **Scalp massage.** Holding your fingers in place on the top of your head, move the scalp about in little circles, one way and then the other. Move the scalp forward and back, and side-to-side, too. Repeat as many times as you like, placing your fingers in a new spot each time.

- **Medulla massage.** This technique addresses the back of the neck, adjacent to where the medulla oblongata lies under its bony protection. With three fingertips of each hand (index, middle, and ring fingers), press into the groove between the ropy muscles of the neck just under the skull. Circle three times one way and three times the other. Take a double-breath in, tilting the head back against mild resistance from the fingers, then relax the neck forward on the out-breath. Repeat the sequence of massage and double-breath three times.

- **Foot massage.** Using acupressure points, reflexology, or just your own sense of what feels good and therapeutic, a few-minutes’ massage to the feet can relieve tension, restore circulation, and give you a lift. Could you offer a foot massage to your spouse or one of your friends? Great idea!

- **Palming.** This is the simplest self-massage technique of all, yet among the most powerful. An excellent antidote to extended close work, it rests the eyes and refreshes the nervous system. Practitioners of natural vision improvement encourage daily practice of palming, up to half an hour at a time! Schneider and Larkin (1994) state that palming serves two functions: giving complete, conscious rest to the optic nerve, and relieving “the rigidity of the eye muscles which plays such a large part in restricting vision” (p. 198). Lightly cup your hands over your eyes, so that your fingertips touch the top of your brow above the hairline and the heels of your hands rest gently on your cheekbones. Slightly lift your elbows and your heart, so that you sit up straight,
and breathe in slowly and deeply. Visualize the darkness through your closed eyes, and feel the soothing effect of your hands. Continue for a few breaths or a few minutes. When you are done, slowly draw your hands away, then slowly open your eyes.

**Palpation.** Using your hands to feel the muscles at work when you do different movements enhances your “neural map” of the area. This increases your control of the area through both movement and relaxation. Palpation can be as simple as placing one hand on the opposite shoulder as you lift and relax the shoulder. Feel the action of the muscle as it tenses on the lift and relaxes on the release. With some muscles, such as those in your limbs, you may also explore where the muscle becomes tendon, and where the tendon attaches to bone. Anatomy is a lifelong study, and a most intriguing one when done from within.

**Service.** One of the most fascinating studies reported by the Touch Research Institute (Field, 1998) looked at depressed elderly volunteers who gave daily massages to infants for one month, then received massages for a second month. According to Field, “grandparent volunteers benefited more from giving than from receiving the massage, perhaps because, as they reported, they felt ‘awkward’ receiving massages” (p. 1276). Benefits included improved mood and self-esteem along with lowered cortisol (stress hormone) levels. In addition, during the month of giving massage, the elders reported drinking fewer cups of coffee, making fewer doctors’ visits, and making more social phone calls. Giving appropriately – in a time and place where you are at ease, able to concentrate, and not over-tired – is one of the most profound gifts of health that you can give yourself.

Whichever techniques of touch you use, every time that you practice conscious touch you are touching deep veins of awareness, healing, and well-being. Take a few minutes every day to treat yourself, and those close to you, to the warmth of gentle, nurturing contact. Notice the relief, the energy, and the joy that you awaken.

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**References**


