

The Healing Potential of Integrating Ancient Yogic Wisdom and Modern Medical Understanding: The Chakra System and Human Physiology  
By Cator Shachoy

Modern medical understanding is largely ignorant of the subtle body physiology, including the chakra system. However, the ancient yogis understood the overlap between these energy vortices and the physical structures of the body, including the endocrine glands and the nervous system. We know this because the physiological impact of activating the different chakras was recorded in ancient texts. Working with the chakras--or the subtle body--is a non-invasive form of healing with vast potential to bring greater balance and well being. There is even the possibility of preventing illness through subtle body work. Someday perhaps our health system will move forward to acknowledge and integrate all of this understanding, without prejudice. I would like to review the chakras, the nerve plexi, endocrine glands, their primary functions, the location of each of these in the body, and to explore any interactions between these systems. I will try to include primary characteristics or qualities associated with these glands, parts of the body, and chakras.

Let's begin by reviewing some aspects of human physiology. It happens that the endocrine glands are mostly located along the centerline of the body, at the positions of the 7 major chakras. Additionally, there is a major nerve plexus at each of these chakra locations. This alignment inspires a closer look at the interaction of these different structures. Chakras are not physical structures. If you dissect the body, there is nowhere that you will find a chakra. The chakra also does not have one precise location. At times it moves, becomes off center, or changes the direction of spin. The chakra is a part of the subtle body. It is intangible. It is a phenomenon, and exists in a manner which is not easily quantified. For the ease of communication, I will describe the chakra as though it has only one location. Just as each person's physical body is unique, and slightly off balance, this is true for the subtle body too.

In modern medical physiology, there is some understanding of the interaction of the endocrine and nervous systems. Both are regulatory systems, having an impact on all of the other systems of the body, and thus on the cellular functioning throughout the body. The nervous system is a fast acting system, responding to immediate stimulus from both inside and outside the body to maintain homeostasis, or a stable environment, on the cellular level, and of the whole organism, or person. The endocrine system is the yin to the nervous system yang—it is a slow acting system which maintains stability of the body's internal environment over long periods of time. There is a theory that the endocrine system evolved out of the nervous system. The endocrine system is most important when we are young and growing—during childhood and puberty. Many of the endocrine glands shrink and atrophy as we mature, whereas proper functioning of the nervous system is important through the length of our life. Given these inter-relationships, it is possible that endocrine disorders have their roots in nervous disorders. Put another way, the source of endocrine dysfunction may be nervous system

dysfunction, or continual low level stress which is agitating the nervous system. Particularly if this were to occur during early childhood, when the endocrine glands are more active, and play an important role in stable, healthy development. We will explore this more in the context of the chakras later.

The first chakra is the root of the body. The color related to this chakra is red. The element associated with this chakra is earth. In the physical body, this chakra is located at the perineum, between the pubic bone and the tailbone, or the vagina in women, the scrotum in men, and the anus. The coccygeal plexus, at the base of the spine is associated with this chakra. This chakra rules the entire lower body—it can be thought of as the root which extends down the length of the legs, and connects the feet with the earth. There is a breath exchange and energy exchange between the feet and the earth. The more we push down on the earth with our feet as we stand, the more the earth pushes back up, into the body. Bones are the manifestation of earth in the body. When considering the 5 body senses, the sense of touch is associated with this center. This chakra relates to the physical plane, to things tangible. The skin as an organ is associated with this chakra. This is the only chakra with no endocrine gland located in the immediate area. The adrenal gland, sitting on top of the kidneys, is most often associated with this chakra. This gland is responsible for the release of epinephrine/norepinephrine which has a similar effect to the activation of the sympathetic nervous system, or the fight or flight response. This is a primal response, designed to bring us into physical action to defend ourselves against possible attack or threat. This is an appropriate match, as this chakra is associated with primal instincts and physicality—birth, death, survival, and feelings such as primal fear and/or anger. If we view this in an evolutionary or metaphoric context, at this level, more refined impulses have not yet developed. The energetic shape of the chakra is such that it goes in only one direction—it is a downward facing cone or funnel, conducting energy up from the earth.

People with first chakra wounding tend to be very slight of body, with a delicate physical structure. Often they have difficulty putting on or keeping on weight. An extreme example of a first chakra disorder is anorexia/bulimia. More common examples include having difficulty with feeling grounded and connected to one's environment, trouble staying focused, or the inability to resolve worldly issues, such as money and home. Healing of first chakra wounds can include touch therapy, for example receiving regular massages or other grounding bodywork. Creating stability in one's daily life can be very helpful. A regular schedule or daily routine will can help to bring some balance.

The second chakra is located in the lower abdomen. It is associated with the sex organs--the ovaries in women, and the testes in men. The color of this chakra is orange. The element is water. Thus there is a connection to all of the fluids of the body, their regulation, rhythm, and elimination. Reproduction, the kidneys and the bladder are other body functions associated with this chakra. The sacral ganglion is associated with this chakra. The issues are emotions, sexuality, and the relationship of self to others. At the

first chakra we are one, we are most concerned with our self. Here, at the second chakra, we begin to relate beyond this simple level. We have developed beyond survival. We become aware of other. This chakra radiates out in two directions, front and back.

The qualities of water, such as fluidity, adaptability, and taking the form of the container or conforming to one's environment, are reflected in issues related to this chakra. An imbalance can appear as rigidity or lack of flexibility. This might be physical stiffness, emotional or psychological unyielding. Difficulty adapting to one's environment is another example of possible dysfunction. This can appear as extreme sensitivity or allergies. Very often digestive disorders are related to second chakra issues. Sexual dysfunction and illnesses of the sex organs are also related to this chakra. Healing second chakra wounds is often rooted in accepting one's emotions and allowing their expression. Exploring self expression and creativity may be helpful in healing. By getting a sense of what limits you, where you feel bound and restricted, and then moving into self expression, the body and the mind respond by moving from restriction into more fluidity and adaptability. The first steps to regaining one's self expression may seem scary, even terrifying. And so it is with the first step of any journey. But there is a momentum created through taking action. Once that first step is taken, the next step will follow it, and the next and the next, until the river flows seemingly without effort. It requires tremendous courage to break out of our old, safe, familiar, deeply conditioned habit patterns. Our relationship to courage is rooted in the third chakra.

The third chakra is located at the base of the ribs. The color is yellow. The element is fire. Fire can be thought of as temperature regulation, heat throughout the body, as well as passion, desire, things that burn and are hot. The pancreas is the endocrine gland immediately associated with this area. It is involved in secreting insulin and glucagon, to regulate the blood sugar level. Other organs associated with this chakra are the stomach, liver, gall bladder, and the nervous system. The proper functioning of these organs is often related to appropriate expression and release of anger. The nervous system is fire itself—it sends electrical impulses throughout the body to regulate cellular metabolism, or the fire of each individual cell. The fact that this chakra is associated with sugar levels in the body is interesting to look at. The sweetness of sugar is the yin to the yang of aggression. On an unconscious level, we often want to eat sweets to pacify our anger. And sugar is the fuel we burn to sustain our bodies. The issues related to this chakra are will, determination, self expression, and community. The hot emotion of anger is associated with this chakra. A more accurate term may be aggression, which is related to establishing oneself both as an independent individual, and in relationship to others. Here we are three—relationships have become more complex, and occur on different levels. We can also see how the third chakra is the multiplication of the first and the second chakras. Life has expanded from survival, to reproduction, to family, community, and self expression. The “solar” plexus is the nerve ganglion associated with this area—another reference to heat. The energetic shape of this chakra is such that it radiates out in all directions, like the sun.

Third chakra dysfunction includes inappropriate expression of anger—either being unable to express anger, or being angry all the time. More extreme examples are liver disease and illness of the gall bladder or pancreas. Healing of third chakra wounds involve self-determination. Setting a course and sticking to it. Perhaps you have had the desire to begin a daily yoga practice, or some other healing discipline. On some level, it simply requires your independent determination to follow through. To set the time aside each day, set an alarm clock, and show up. There may be steps you can take to support yourself in manifesting this new discipline. For example you might increase the number of weekly yoga classes you attend. The intention behind your actions is very important. If you look on the new classes as a substitute for your own practice, then they are not an aid to your goal. But they could be a support to creating the habit of setting aside that time for yourself, and in order to follow through on your goal, the days you do not go to class set aside the same amount of time for yourself to practice. After a reasonable period of time, reduce the number of classes you attend, and use the time for your own practice. The attitude with which you pursue the activity—i.e. how you enforce your self-determination—is very important. A warrior’s determination must be supported with utmost compassion. Kindly, gently, firmly guiding yourself in the right direction will benefit you and those around you more than abusing, harassing, or guiltig yourself into a new routine. Looking at your attitude toward yourself is an invitation into the fourth chakra.

The fourth chakra is located at the heart. The color is green. The element is air. We can think of this as space, spaciousness, cavities and holes in the body. The gland is the thymus. This gland is related to immune system functioning. Other body organs and systems associated with this chakra are the heart, blood, and circulation. The pulmonary and cardiac plexi are located here. The issues related to this chakra are heart opening, compassion, how we relate to or are receptive to our environment or those around us. Thus if we continue to use an evolutionary metaphor, we have expanded from survival, to reproduction, family, and now to love. The fourth chakra plays a special role in the movement of energy within the chakra system. It is the gateway to the higher chakras. The opening of the chakras above this one are related to the development of the lower chakras. As we continue to develop and strengthen our connection to the earth, to cultivate the balance and harmony of the flow of water, and to stoke, regulate, and contain fire, energy builds up and naturally flows upward toward the heart. From here, further upward flow is regulated. This is somewhat reflected in the glands associated with these higher energy centers. They tend to be “regulating centers”, having a pervasive effect on many systems throughout the body. The energy rises up, information is interpreted, a regulating gland secretes a hormone which sends instructions down.

Fourth chakra dysfunction includes heart disease and auto immune disease. An auto immune disease means that the body is attacking itself. It may be helpful to look

closely at our attitude and personal psychology to see how we use our mind to attack ourselves. How are we our own worst enemy? The healing of the fourth chakra is the cultivation of self love. Our relationship to ourselves is truly the foundation for all our relationships, intimate and otherwise. This underlies how we relate to all things, all creatures, all people. There is no task that is more worthwhile in life than to learn to nurture and care for ourselves with kindness, tenderness, strength, determination, perception, and wisdom. Loving oneself does not mean blind self indulgence. It means becoming one's own best friend. Learning to sit beside yourself and really listen. As self acceptance deepens, we naturally become more receptive to, and accepting of those around us. All wounds are mirrored in this wound, the wound of the heart. The weight of bearing other wounds is lightened through healing the heart.

The fifth chakra is located in the throat. The color is blue. The element is ether, or sound. The endocrine gland associated with this chakra is the thyroid. The thyroid is regulated by the hypothalamus portion of the brain, and the hormones it secretes have far reaching effects. The thyroid gland is involved in the regulation of cellular activity, including metabolism, growth and development, and nervous system activity. It is most important during childhood development and puberty. Other body organs associated with this chakra are the bronchial and vocal apparatus, lungs, arms, ears, and mouth. It is associated with 3 of the 5 senses—hearing, smelling, and tasting. The nerve plexus located here is called the, “pharyngeal plexus”. The characteristics of this chakra are communication, sound, vibration, and refined self expression. Most people do not begin to really open this chakra until they reach maturity, although there are instances of child prodigies. As mentioned above, the opening of this chakra is a natural outgrowth of personal development. The basic issues of life have been resolved. As we mature and grow into ourselves, our unique creative vision can begin to manifest. The front of the chakra relates specifically to vision and ideas, and the back of the chakra relates to manifesting. It is not uncommon for people to have one side open and one side blocked—thus they are good at envisioning, or at manifesting, but not at both. This can be something which draws people to one another, either as an intimate relationship, or a working team—one member is the visionary, and the other is the producer—together they have a functioning fifth chakra. However this is not a replacement for having a properly functioning and developed fifth chakra which is open and balanced in the front and the back.

Wounding of the higher chakras is very often rooted in lower chakras. As we carry on our journey, refining our sense of our self, higher chakra issues will lead us back to the lower chakras. As we look again at the issues related to these chakras, we create a stronger foundation, become more integrated, more connected to ourselves, to those around us, and our environment. I will give an example of a friend who had thyroid disease, which is a fifth chakra dysfunction. She was diagnosed when she was 12 years old. In western medical understanding, her condition has no cure. But it was treatable, and it had little obvious impact on her life. As an adult the journey of her life began to

reveal to her the roots of her disease. She explored the issues related to the fifth chakra wounding. Her process took her into personal emotional, psychological, and developmental issues. She began to realize the source of the imbalance lay in her early childhood experience, and was related to the blockage of emotional expression. Additionally, her nervous system had been affected. Thus the disease was rooted in first, second, and third chakra issues. As she continued to live her life and grow into herself, her thyroid began to function normally again, and the disease disappeared. While in this case healing included the release of the disease, this is not always so. Ultimately, our bodies are frail and we will all die of some cause. However it is possible to heal our mind and our heart through the course of our life.

The sixth chakra is at the forehead. The color associated with this chakra is indigo, and the element is light. Interpretations vary as to which endocrine gland is associated with this chakra. Both the pineal and the pituitary glands are located at this level, deep inside the brain. Their functioning is associated with the 6<sup>th</sup> and 7<sup>th</sup> chakras. Having acknowledged this, I will describe the pituitary gland here, and the pineal later. This gland is regulated by the sympathetic nervous system and the hypothalamus, which is located directly above it. It secretes at least 7 different hormones, which are regulating hormones for other endocrine glands. These hormones have an impact on body activities from growth to reproduction. In terms of modern medical understanding, the pituitary gland has secrets yet to be revealed. The function of this organ is not fully understood. The carotid plexus is located here. This chakra is associated with the sense of seeing, and is often called, “the third eye”. In addition to the eyes, other organs associated with this chakra are the nose, the ears, the lower brain, and nervous system. The left eye especially is related to this chakra. In the body, the right side is associated with yang energy, masculine qualities, and the rational mind, the left side of the brain. The left is associated with yin qualities, the feminine, and intuitive understanding, the right side of the brain. Issues related to this chakra are second sight, intuitive interpretation, deeper understanding...seeing beyond the obvious, or the physical plane. Subtle vision.

The seventh chakra is at the crown, or the top of the head. The color is violet, or white—as in purity. The element is thought. The gland is the pituitary or the pineal. I will describe the latter here. Even less is known about the function of this gland. We do know that it begins to calcify after puberty. Whether this has any impact on the functioning of the gland is unclear. It secretes melatonin, which inhibits reproduction, and affects our sensitivity to light, or the cycles of day and night. In terms of ancient yogic wisdom this was understood and utilized—covering the eyes in order to promote entering a deep state of withdrawal and/or meditation was (and is) a common practice. This chakra is associated with higher consciousness, with direct knowing or insight. Clear meditation. Spiritual union. The right eye is associated with this chakra. As mentioned above, the right side of the body is associated with the rational mind. The deepest spiritual understanding comes from a higher development of the rational mind. This results in a total change of our view, on all levels—the personal, world, and cosmic. The microcosmic

and the macrocosmic. Our view of our individual self, and our place within the greater picture of life. The energetic shape of this chakra is an upward facing cone. The middle five chakras have a front and a back, and thus are paired. The 1<sup>st</sup> and the 7<sup>th</sup> chakras can be considered paired, even though they point in opposite directions. They interact directly, and form a contained energy field.

In reflecting on the qualities of the sixth and seventh chakras, it is apparent how their opening is a process of refinement, a higher evolution. I would like to say more about the role the fourth chakra plays in this. As we continue on our journey of personal development, we process and refine our relationship to the lower chakra energies. As our root deepens, our stability increases, there is a natural uprising of energy. The fourth chakra plays a role in this alchemy as the gateway to the higher chakras, regulating this upward flow. It is also the place of the elimination of the individual ego. As the higher centers begin to open up, and we manifest the abilities associated with them, elimination of the ego is essential. This loss will make the difference between this higher development being a useful blessing, and an entangling hell. As long as we are invested in the idea of being someone—psychic or otherwise, then we are bound. Even if we just want to be good, we are caught in our self-image. In the ancient yogic understanding, the mind is not in the brain, but located at the heart. This is the true seat of the ego.

Thus we can begin to see how these different systems overlap in our body—the tangible and the intangible. The solid and the subtle. Each has something to learn from the other. The refinements in understanding of our physical structure, like body organs, muscles, cells, and chemicals are a result of modern scientific exploration. This new understanding helps to inform the traditional system of yoga. The ancient wisdom of the subtle and intangible qualities of life—including a sense of spiritual connectedness--and how these qualities overlap and interact with our physical existence are essential to developing a sense of wholeness in our lives. I see subtle body work as sophisticated and effective preventive medicine. In the human energy field, imbalances appear as weakness or abscess, which is an area of too little energy, and congestion—an area of too much stagnant energy. If they are not brought into balance, these imbalances can solidify, and manifest as disease. Low energy becomes chronic weakness, fatigue, or immune deficiency. Congestion becomes blockage, tumor, cancer. The truth is that we all have areas of both. By working with the chakras and the energy field, there is the potential to bring balance before disease manifests. This timeless wisdom can enrich our modern medical understanding, as well as increase our sense of connection and satisfaction in our increasingly isolating society and lifestyle. I have a belief that in time our understanding will become more integrated and holistic. The potential benefits of allowing this to happen are vast—too great to ignore.

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