

The Scientific Foundation of the Ancient Chinese Secret of Youth (Dr. Yang's Advice #2)

Dr. Yang, Jwing-Ming, YMAA CA Retreat Center, 03/02/2020
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Introduction

Over the last two years, the scientific information I have come across has helped me untie a compelling Qigong mystery: why centenarians were so common amongst Daoists in ancient times. After having studied and researched Qigong for over 55 years, I consider this a major revelation. The following article is only a chapter of the book I am currently writing: *The Ancient Secret of Youth – A Scientific Foundation*. If you wish to read more of my works in Chinese Qigong, please visit www.ymaa.com.

Abstract

The most essential keys to longevity and anti-aging are rooted in your body's ability to maintain a strong energetic center, which directly aids in the natural production of your body's hormones. This center is comprised of two important energetic points—the brain and the gut—and they are connected by the spinal cord. It is imperative that you have a strong, uninhibited flow and quantity of Qi throughout this core energy system to maintain your health. To gain a more comprehensive understanding of the underlying theory, I will first give a brief background of traditional methods and findings, tie them into more modern scientific research, and then finally close with a look at practice techniques that I recommend for your regular training today.

History

1. It has been recorded and commonly recognized that Chinese Daoists were able to live for more than 90 to 120 years old in ancient times. This was during a time when the average age was only about 40ⁱ. There is an old Daoist proverb that says, “120 years old is dying prematurely” (Yībái Èrshí Wèi Zhī Yāo, 一百二十謂之夭). Longevity was always associated with being healthy, peaceful, and harmonious.
2. There was no advanced technology in the past to explicitly dissect and analyze the science or theory behind this phenomenon. All of the results and conclusions were accumulated through the empirical experience of numerous generations.

Ancient Chinese Understanding and Explanations

1. **The Body's Polarity** – It was recognized long ago that two specific points in the human body were the two poles of a very important polarity. They were

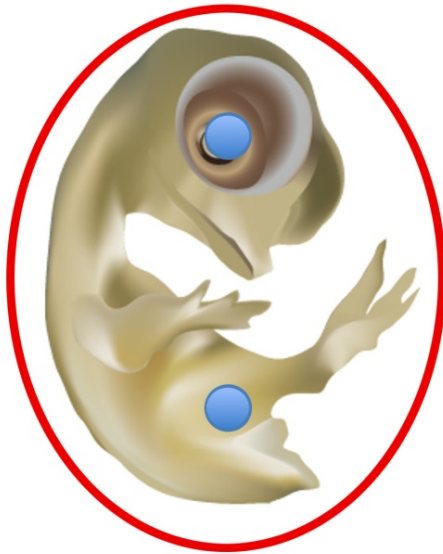
considered of the utmost importance in health and well-being. One was determined to be the center of the head, and it was named “Mud Pill Palace” (Níwán Gōng, 泥丸宮) or “Upper Dāntián” (Shàng Dāntián, 上丹田). The other was identified as the center of gravity (i.e. your physical center) and named the “Real Lower Dāntián” (Zhēn Xià Dāntián, 真下丹田).

While the Upper Dāntián was believed to be the residence of the spirit (Shénshì, 神室), the Real Lower Dāntián was believed to be the dwelling of Qì (Qìshè, 氣舍). The spirit manages the manifestation of Qì in the upper center, and the quantity of Qì is supplied from the lower one. This polarity and relationship was actually first mentioned in Chapter 16 of the *Dào Dé Jīng* (道德經) book by Lǎozǐ (老子), which was written about 2600 years ago.

- 2. Relation of the Two Poles** – The Upper Dāntián and Real Lower Dāntián are connected by the Thrusting Vessel (Chōngmài, 衝脈), which is basically an energy reservoir that follows the path of the spinal cord. As the word “thrust” implies, the Chinese believed that Qì moved swiftly and without resistance in this vessel. Therefore, these two poles—this human polarity—were understood to function as a single entity, synchronizing with each other simultaneously.

This system is the basis of any human’s or animal’s central Qì system, a vital and necessary component to life. When an embryo forms, this polarity is always constructed first. The communication between the Upper Dāntián and Real Lower Dāntián must remain smooth and undisturbed, so spinal health is an absolute requisite to living well and living longer.

Polarity in Embryos



Chicken embryo



Human embryo

- 3. Guardian Qì** – An aura is defined as a type of energy surrounding the body. This concept has sometimes been portrayed across different cultures as halos, which are found in both Eastern and Western cultures—including both Christianity and Buddhism. While scientific research has been unable to confirm the existence of a person's aura, the Chinese understood it to be an elliptical shield-like energy surrounding the body that was directly related to the body's central polarity.

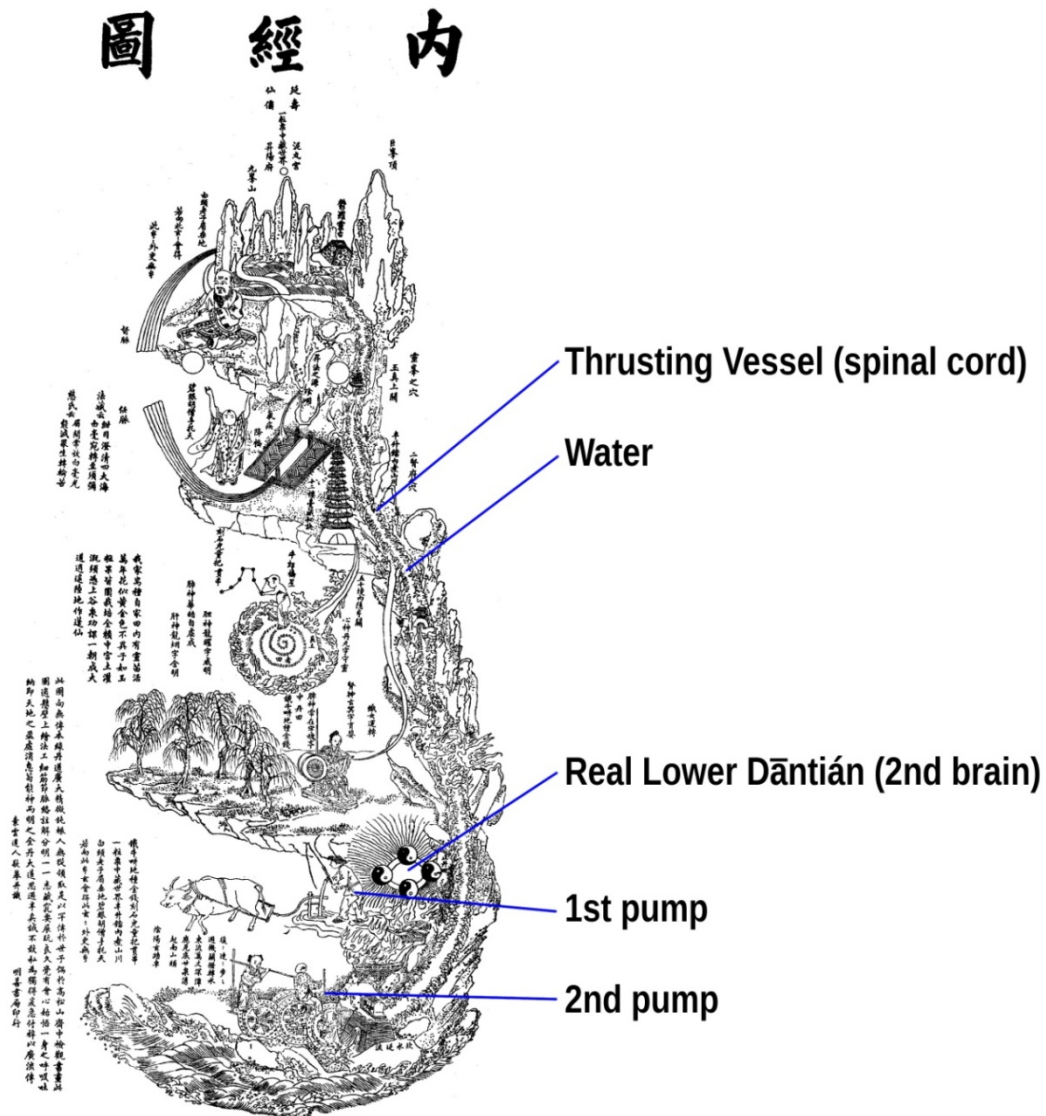
The stronger the Qì is in your center, the stronger your Guardian Qì (Wèiqì, 衛氣)—or aura—can be. Your Guardian Qì is heavily related to your immune system, your ability to fend off diseases and recover. If you are able to build and maintain a strong central Qì core, then your Guardian Qì will make your spirit and inner purpose much stronger.

- 4. The Body's Energy Pumps** – The Chinese discovered that the abdomen and perineum (i.e., anus) could be used to more efficiently move Qì around the body. These pumps are a natural part of the human body's design. For example, when a baby is growing in the womb, it must use these pumps to receive nutrients, water, and oxygen through the umbilical cord. The idea of having such pumps to move water in the body is illustrated in an ancient chart of the human body, the Táng Dynasty Inner Meridian Chart (Tángdài Nèijīng Tú, 唐代內經圖, ~859 C.E.). The part representing the spinal cord has a path where water flows. Modern science has confirmed that there actually is a fluid present in the spinal cord, but

it is actually cerebrospinal fluid, as opposed to water. The water in the chart is moved by: 1) a man tilling the field, and 2) children working a water wheel. The man is in the abdominal area, and the children are in the perineal area.

I believe these pumps physically move your entire central Qi system up and down, specifically affecting the limbic system. Limbic system oscillations massage, stimulate, and enhance various parts of the body to produce hormones and create conditions for a higher quantity and quality of Qi in the body. This is probably why the ancient Chinese concluded that these areas were pumps for ultimately manipulating Qi flow.

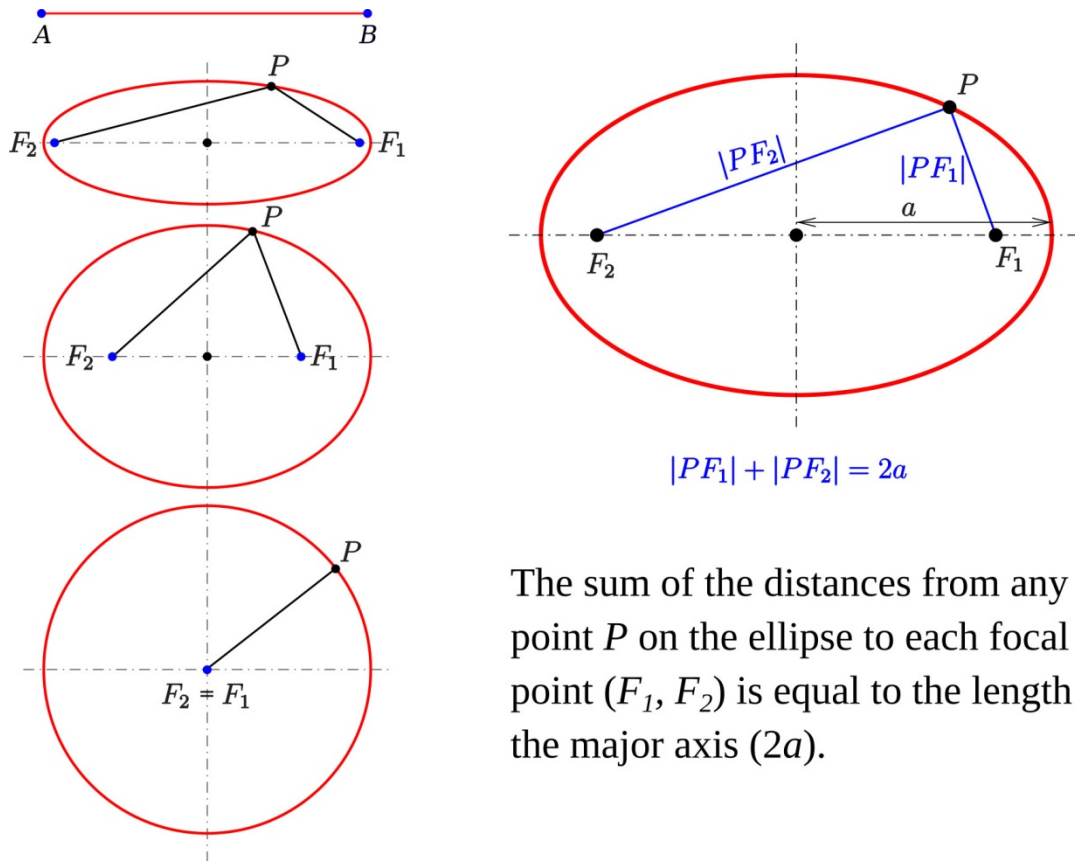
Táng Dynasty Inner Meridian Chart (Nèijīng Tú)



Scientific Foundations and Interpretations

1. **Focal Points (i.e., Resonance Centers)** – We are familiar with a line having two endpoints that define it. For an ellipse, two focal points exist. The rounder an ellipse is, the closer these focal points are. If the ellipse is a circle, the focal points

overlap and become one. The below diagrams illustrate this concept. However, remember to also consider the three-dimensional cases (an ovoid and a sphere).



The sum of the distances from any point P on the ellipse to each focal point (F_1, F_2) is equal to the length of the major axis ($2a$).

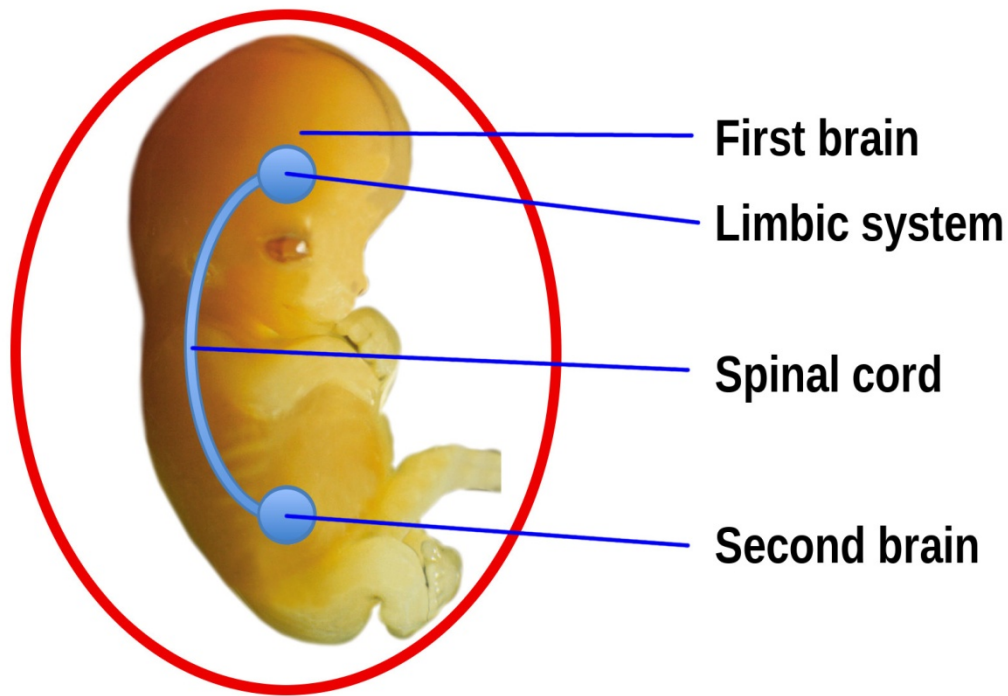
If we consider the Upper Dāntián and Real Lower Dāntián as focal points, then an ovoid space would surround the body. Within this space, the Upper Dāntián and Real Lower Dāntián share a synchronized relation to each other, as shown in the illustrations with PF_1 and PF_2 . These points are energetic, so I will refer to them as “resonance centers.” They are actually what scientists now refer to as the body’s two brains. The first brain is the one in our head, and the second brain is our gut (i.e., enteric nervous system). Scientists classified these two entities as brains because they each have the capability of functioning independently. This undoubtedly highlights their importance and significance.

The spinal cord connects a path between them, attaching directly to the brainstem and going down to the lumbar area of the back. Because the spinal cord is made up of highly electrically conductive nervous tissue, the two brains can synchronize with each other instantaneously and function as a single circuit. The two-brain theory coincides precisely with the Chinese explanation of the Upper Dāntián, Real Lower Dāntián, and Thrusting Vessel.

2. Resonance Center Origin Points – While it is easy to locate our upper and lower brains, it is worth trying to explore and ponder where the origin point of each resonance center is.

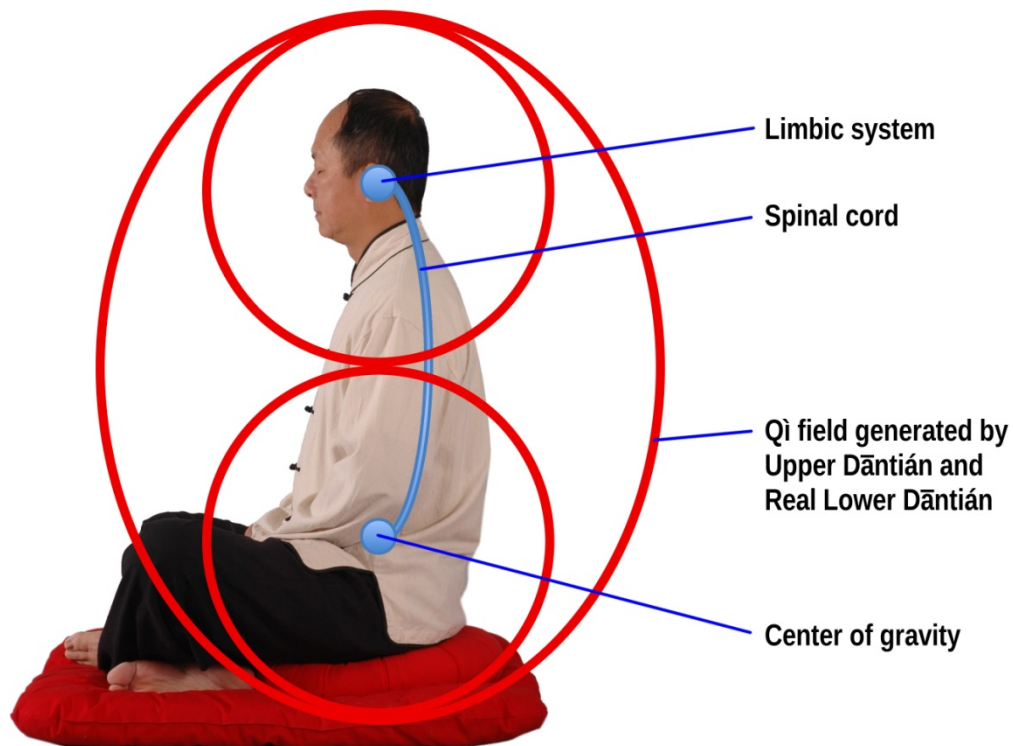
The head's Qi field is spherical, so logically, its resonance center should be at the center of the head. The limbic system is at the center of the head and is believed to heavily influence the unconscious mindⁱⁱ and may also store genetic memoryⁱⁱⁱ. I believe it is affecting the *subconscious* mind as well. “Unconscious” implies a state where consciousness is entirely not present. Many aspects of Qigong practice, particularly meditation, involve the conscious mind still being at least partially present in a semi-sleeping state. The subconscious mind can provide you with intuition, emotion, and action. In the book *The Second Brain*, the author refers to the lower brain as the source of gut instinct^{iv}, but I actually believe it has to do more with the second brain being connected to the limbic system. I believe it is accurate to say that the subconscious mind resides in the limbic system and acts as the spiritual center of your life. There is a reference to the “center of doing nothing” in *Dào Dé Jīng*. It means the “doing of no doing” and the “thinking of no thinking” (Wúwéi, 無為). Essentially, it talks about the center where everything is natural and automatic, without conscious interference or disturbances. I believe this passage is further substantiating the limbic system as the true origin of the upper resonance center.

The lower resonance center should be the body's physical center of gravity—when standing in a neutral position. Essentially, it is your gut (i.e., the Real Lower Dāntián). The center of gravity is the point on the body where mass seems the most concentrated, and the point upon which gravity acts around^v. This location would make the most practical sense for being a resonating energy center because it provides the most equilibrium, in terms of body balance, symmetry, and stability—both physically and mentally. It is my belief that this is the location of the very first cell that is formed when an embryo develops and thus, should remain the core root of manipulating and controlling all aspects of your life.



3. **Qì Movement in the Body** – In addition to the Qì fields produced by the two brains, there is another strong, round Qì field (i.e., magnetic field) produced by the heart^{vi}. Similar to electricity, a potential difference is required in order to circulate Qì. Since the location of the heart is closer to the front and left side of the torso, the resulting energy imbalance creates a major motive force behind Qì spiraling around the body. The same effect happens with the spinal cord, which is offset towards the back of the body. Qì circulates from the back of the body to the front because of this energy imbalance. In Turtle Shell Qìgòng, exercises were developed to follow this flow, following the nerves around the ribcage from back to front.

Unfortunately, science has not been able to provide a detailed map of exactly how these magnetic fields (Qì) flow and change around the body. Through my own Qìgòng practice, I have observed and become aware of general patterns. The fields drawn in the diagrams below have been simplified for readability and to just present the general concept.

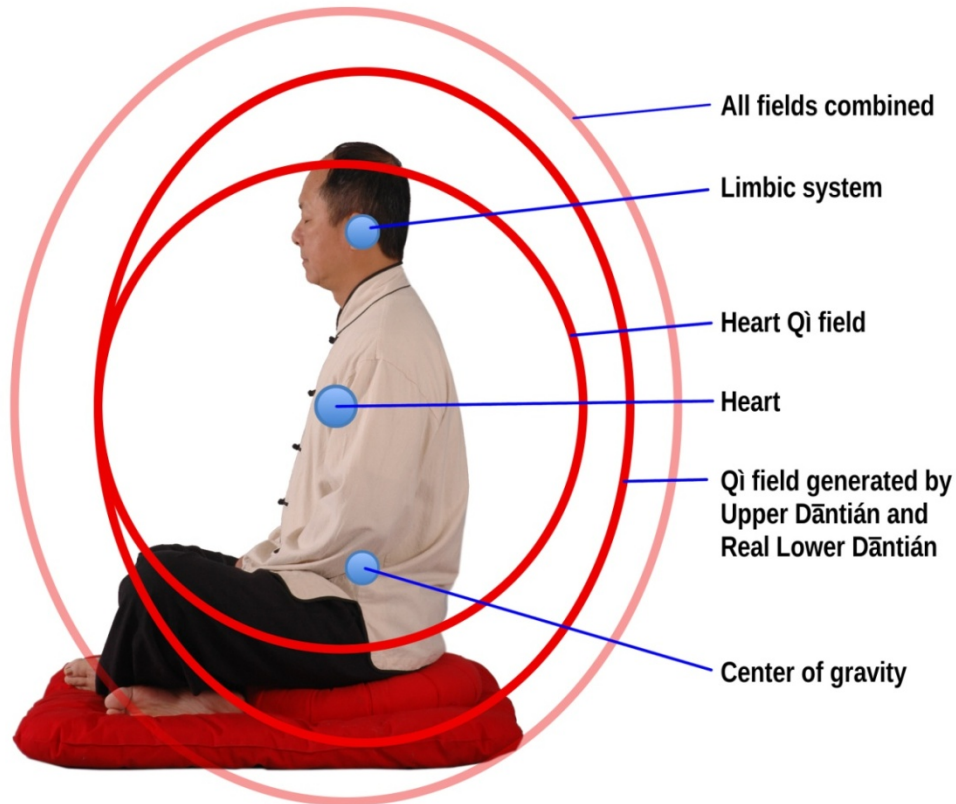


4. Combined Effect of All Qì Fields – When the field formed by the two brains and the field formed by the heart are all added together, the resulting Qì field is

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stronger and denser on the rear side. The front side is less compact, so we would classify the front side as Yīn and the rear side as Yáng. Qì extends farther in front of the body than in the back.

Profound results can be achieved by being cognizant of all the different energy fields at play and to incorporate this recognition into your daily practice. Something as seemingly small as a heartbeat can produce a subtle but significant change in your body's Qì, influencing both your mind and body. Heart rate variability and amplitude have been shown to correlate with emotional well-being^{vii}. My theory is that with each heartbeat, your overall body's Qì field changes shape, from being more elongated to more round. Thus, the two resonance centers should also oscillate closer and farther away from each other energy-wise, not just physically. The whole process should help contribute to the movement and stimulation of the limbic system, and consequently also hormone production.

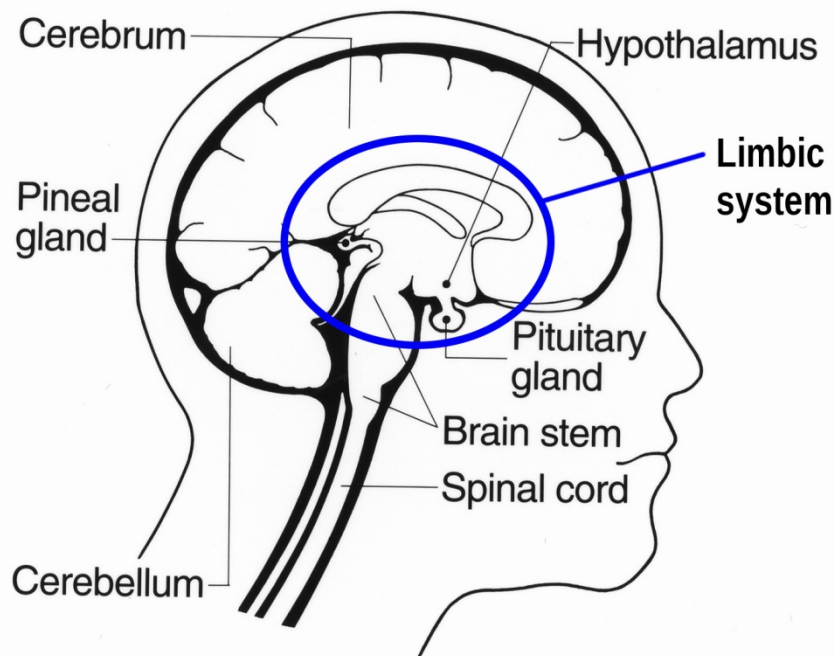


- 5. Pineal and Pituitary Glands** – I am confident that the “pills” of the ancient Chinese name “Mud Pill Palace” were in reference to these two glands, both of which are located in the limbic system. The pineal gland is related to spiritual development, and the pituitary gland is related to physical growth. These two glands oversee most, if not all, of the body's spiritual and physical health. The

name “palace” implies an echo-like effect, meaning that these glands can be stimulated and vibrated, for example, through the practice of Qigōng.

Western cultures call the pineal gland our “third eye.” It produces melatonin, which is commonly related to good sleep, a healthy immune system, and well-being^{vii}. The effects of higher melatonin production have often been associated with deep meditation, as well as calming, regulatory effects on the body and emotions. Some of our most profound discoveries and epiphanies come in these meditative moments. Consequently, I believe melatonin production plays a major role in our spiritual development.

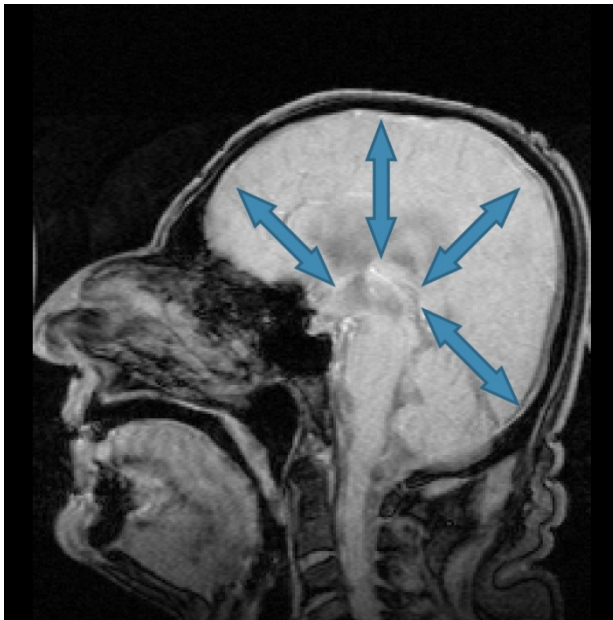
The pituitary gland is sometimes referred to as the “master gland” of the endocrine system, because it is responsible for the control and function of several other glands that help to maintain the body’s physical health^{ix}. Among those hormones is HGH (human growth hormone), which regulates the physical body’s growth, cell production, and tissue repair. Maintaining the operation of this gland helps to prevent physical aging and reduce recovery times.



- 6. Circulation/Movement of Cerebrospinal Fluid** – Within the brain and spinal cord is a clear fluid known as cerebrospinal fluid (CSF). When we are sleeping and breathing deeply, this fluid helps to remove any accumulated metabolic waste^x, and it actually moves in a rhythmic, wave-like manner^{xi}. The key to

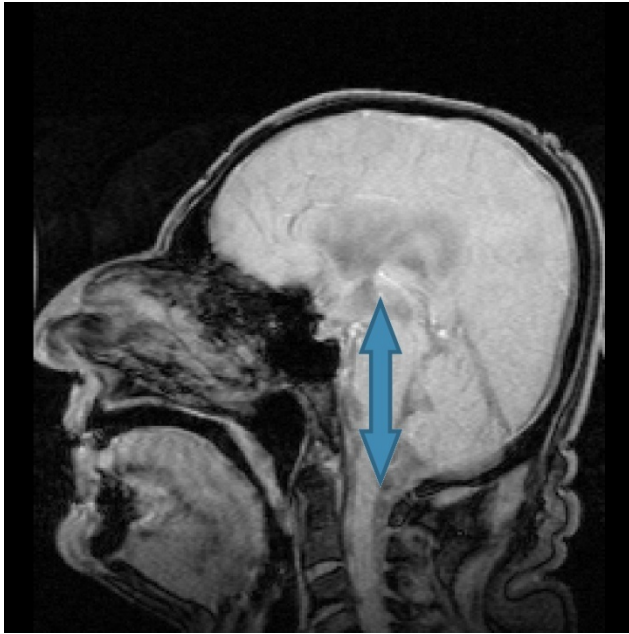
keeping the brain healthy and functioning normally is to keep CSF pumping and circulating smoothly throughout the brain.

Enhancing the flow of Qì through Qìgōng practice should complement the natural CSF circulation process. To further enhance the cleaning process, you may want to try lying down with your head lower than the torso. It would be worthwhile to explore how this practice may benefit patients with brain disorders, such as tumors or Alzheimer's. I strongly believe that training Qìgōng is a safe and effective practice that can be used to self-clean the brain for better clarity.



Cerebrospinal fluid circulates throughout the brain in a pulsing, wave-like motion.

- 7. Limbic System Oscillations**— It has been shown that limbic system oscillations (up-down motions) can be enhanced by breathing, particularly from the nose^{xii}, or influenced by even your heartbeat^{xiii}. The pulsing of the heart contributes to the movement of cerebrospinal fluid in and out of the brain^{xiv}. According to these findings, it may be surmised that exercising more (i.e., conditioning your heart and breathing) can help to regulate or even increase the levels of hormone production in the limbic system, specifically in the pineal and pituitary glands.



The limbic system oscillates with when you breathe and when your heart beats.

Ancient Practice and Guidelines for Practicing Today

1. **Abdominal Breathing** – Daoists and some Buddhist Qigōng practitioners emphasized the practice of abdominal breathing. Abdominal breathing is also called “back to childhood breathing” (Fǎntóng Hūxī, 返童呼吸). Through this type of breathing, the limbic system is continuously massaged. As a result, hormone production from the pineal and pituitary glands can be increased.

In order to produce more Qì (i.e., elixir), you need to convert the fat stored in your abdominal area into Qì. This can be achieved through abdominal exercises. In order to increase the efficiency of this conversion, you will need to train and condition your abdominal muscles. This process is called “building the foundation of Dāntián” (Dāntián Zhùjī, 丹田築基). Deep abdominal breathing will push and pull the spinal cord and limbic system up and down. The diaphragm can be expanded farther down by up to two centimeters through deep breathing, which would then also stimulate and massage the adrenal glands on top of the kidneys. Diaphragmatic breathing has been correlated to increased levels of melatonin production^{xv}, so there is almost certainly a relation to the pineal gland.

2. **Coordination with the Perineum (or Anus)** – When Daoists and Buddhist practitioners trained abdominal breathing, they also coordinated with the movement of the perineum. Specifically, at the center of the perineal area is an acupuncture cavity (Huìyīn, 會陰)(i.e., meeting point of Yīn) that is considered the exact point of this pump. Oftentimes, it is simply referred to as the anus, which

although inaccurate, is close enough to Huìyīn to produce the same results. The Huìyīn pump can help to promote Qì flow in your brain, gut, and spinal cord (Upper Dāntián, Real Lower Dāntián, and Thrusting Vessel) and is a major component in moving Qì into and out of the body. In coordination with deep breathing, this pump can help to more effectively move the limbic system and spinal cord up and down, creating a more optimized and improved process to enhance hormone production. I believe this pump also promotes better cerebrospinal fluid flow.

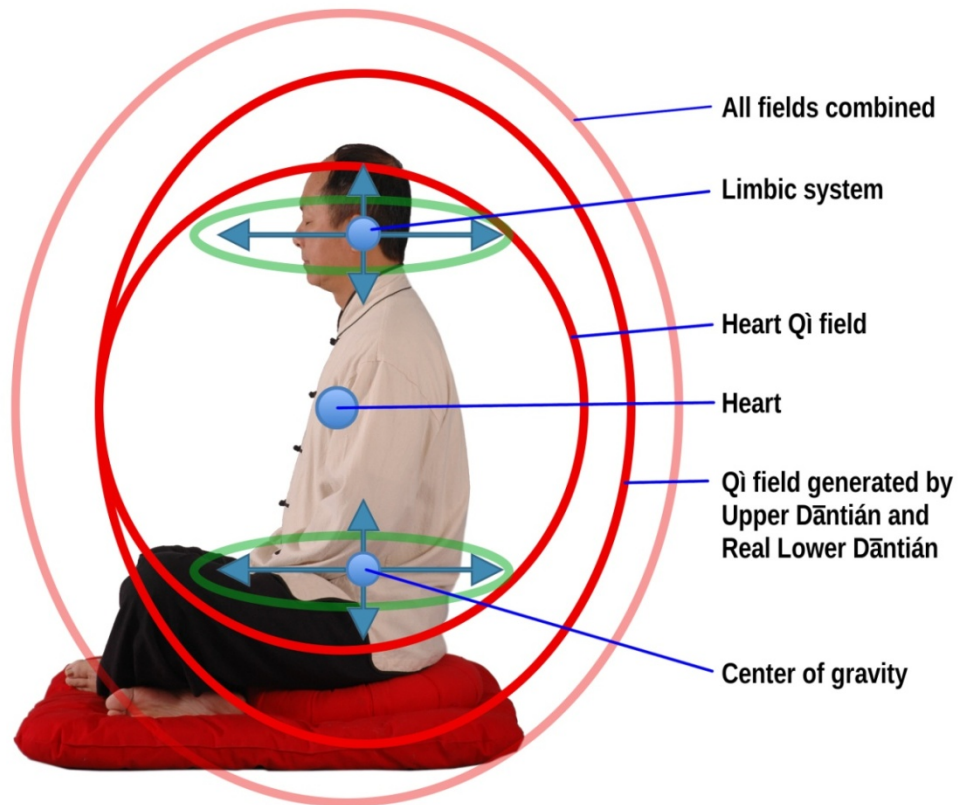
In order to make this pump efficient, you must condition the muscles of the perineal area in addition to your abdominal muscles. You must regularly condition and exercise the muscles around Huìyīn until you are able to use your mind to fully control and manipulate them.

- 3. Keeping the Mind at Dāntián** – To Daoist and Buddhist Qìgong practitioners, another key to successful practice is being able to keep the mind focused on the Upper Dāntián and Real Lower Dāntián (Yìshǒu Dāntián, 意守丹田).

Dāntián literally translates to “elixir field,” which implies an area where you can produce (grow) energy. When the mind can stay on these two centers, Qì will stay in your body’s centerline and not be led outward or needlessly consumed. During practice, you should always keep your mind focused on these two points to conserve and build energy, and observe their synchronization. Once you have built a subconscious habit of keeping your mind on these two centers, you will then be able to maintain a supply of Qì for enhancing hormone production through the Upper Dāntián (i.e., limbic system).

- 4. Girdle Vessel Exercises** – The Girdle Vessel (Dàimài, 帶脈), or Belt Vessel, roughly follows the waist line. It is well-recognized in Chinese medicine and Qìgong that when the Qì in your Girdle Vessel is abundantly expanded, your immune system can be strengthened and boosted.

Exercises for the abdominal area commonly target the Girdle Vessel. The center of the Girdle Vessel is the same as the second brain: the center of gravity. When the Qì in this area (lower resonance center) is strong and expansive, the limbic system (upper resonance center) will also expand, because it will automatically synchronize with its lower counterpart. As a matter of fact, Chinese martial artists often use belts to enhance the quality of their Qì manifestation and power in their training. When the waist area is restricted by a belt, the resistance pushes the body to expand its energy further. Coordination of breathing and the Huìyīn pump using Reverse Abdominal Breathing will also raise inner vitality and spirit.



Summary of Benefits

1. **Longevity** – This is perhaps the most significant benefit that can be achieved through diligent practice. Due to the stimulation of the pituitary and pineal glands, you will be able to maintain or enhance your body's hormone production, an essential key to extending your life and maintaining your youth.
2. **Stronger Immune System** – Expanding the Qi in the Girdle Vessel and coordinating with the use of your perineum as a pump will enhance your Guardian Qi, strengthening and boosting your overall immunity and internal defense system.
3. **Brain Health** – Focusing Qi on the upper resonance center (upper brain) will help to promote a healthy and consistent flow of cerebrospinal fluid, allowing for regular maintenance and improved function. This may likely contribute to your brain's long-term health, including the prevention of brain disorders.
4. **Raise Your Spirit** – Your Qi's manifestation will be effective and efficient, naturally leading to having a higher spirit. Combined with a strong immune

system, the meaning of life can become profound and purposeful, making you less prone to depression and passivity.

Conclusion

This article is only a brief synopsis of the intricacies in managing your body's energy and how to subsequently extend your life. The “secret of youth” discussed in ancient documents and this article is not about literally becoming younger, but rather slowing down the aging process. The earlier you begin practicing, the more you have the potential to live a longer life.

In order to live healthier and longer, you must take the time to truly comprehend the complete theory and practice behind the functions of your two brains, the upper and lower resonance centers of your body—their roles and how they affect your mind, body, and spirit. Each individual should design a careful, consistent, and focused practice routine. Of course, this takes much time to ponder, discuss, experiment, and to continually adjust in order to make progress.

About the Author

Dr. Yang, Jwing-Ming immigrated to the USA in 1974 and has since authored more than 50 martial arts and Qìgōng books and DVDs. His publications are available from YMAA Publication Center (ymaa.com) and Amazon (amazon.com).

Dr. Yang has also written a few novels to share various thoughts, insights, and personal perspectives about life with readers. They are available on Amazon Kindle.

This article was edited by: Nicholas C. Yang, Dr. Thomas G. Gutheil, and Rii Kanzaki.

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