Shaolin Nei Jing Yi Zhi Chan Standing Meditation Method

Shaolin "Nei Jing Yi Zhi Chan", which means "Internal essence no intent Zen" and emitting your inner chi energy through one's ten fingers is an advanced Qigong from the Buddhist tradition. Chan means Zen in Chinese and refers to the "No Thinking" style of this standing meditation practice known as Zhuang Zhuang (Jan Jong). The exercise methods are simple and produce truly marvelous effects. Due to the Chan (Zen) nature of the method, it is not required to concentrate your attention while practicing. You can even watch TV while performing this system of Qigong. Through this training, all of the body's energy channels will be automatically cleared and opened from the Zhuang Zhuang exercises. This will allow you to accumulate outer chi or universal life force and also emit your own chi. These exercises will dramatically improve your health which can cause the effect of having diseases spontaneously enter remission. By continued practice and skill, you will be able to emit your Chi into others to examine and aid in their healing of illness or diseases. Reaching a Master's level will fully awaken the Greater Kan & Li (Fire & Water) also known as Kundalini energy allowing you to explore your dormant primordial energy with all of its various paranormal or mystical capabilities. This energy is also known as "Spirit", "The Advocate". "The Key to Knowledge", "The Holy Spirit", "The Dragon or Serpent", "The Mustard Seed", "The Breath of God", "Lightning or Lightning Bolt", etc. in various religions and traditions. Awakening this dormant energy is doorway to enlightenment and finding God, the divine or universe within you.

Shaolin Nei Jing Yi Zhi Chan originated from the Shaolin Monastery under the strong influence of Chinese martial arts "Wu Shu" and internal body exercises "Shaolin Nei Gong." While most Buddhist meditations methods have their emphasis on "mind cultivation" this particular method focuses on the body cultivation instead as a result of the martial arts influence. In many respects, it is really a hybrid combination that most likely was the result of the arrival of the sage Bodhidharma at the monastery.

Shaolin One Finger Qigong's intention is to build your body's chi on 10 levels. Unlike most styles of Qigong, this style requires the student to NOT think about or guide chi but rather to generate chi and allow it to flow naturally. The emphasis is that chi is smart in itself and understands the natural flow in the channels. In Chinese Medicine disease or pain derives from chi deficiency and stuck or blocked chi in the body. So as the student fills up with chi, the chi flows it's natural pattern and timing. In today's fast paced lifestyles we use our minds way too much. This training is an opportunity to move away from that cycle. The basic motto of this Qigong is "RELAX, KEEP DOWN, AND NO THINKING."

The standing practice is based on the postures of Arhats, which are somewhat like saints or perfected men. There are 500 postures based on this method but only a few are needed to achieve desired results. Many people falsely believe that no-mind or intent means complete mental silence, which can and does occur at times, but the real objective is to simply stay in the present moment not allowing your mind to drift off into memories of the past or projections into the future. Keep your awareness in the Here and Now and the rest will automatically take care of itself. You can watch TV;

listen to music and even talk with others while practicing so it is not like a deep state of meditation. It also means that you are not allowed to intentionally guide the chi through the body's channels. When you feel the chi, just let it do what it is going to do naturally.

Begin this practice by acquiring the ability to hold the main posture for 20-minutes or more. Begin with maybe a stand of 5-minutes and then add a one minute each day until you reach a 20-minute practice. It is best to practice Zhang Zhuang 1 to 2 hours after eating. Also, when you finish, drink a glass of warm water (room temperature is fine) and do not shower or bathe for at least 1-hour.

Fundamental Arhat Posture of Shaolin Nei Jing Yi Chan Qigong.

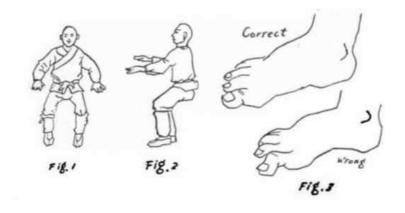
Preparing posture: Relax completely in Wu Ji #1. Stand with feet shoulder-width apart. Point the toes straight forward but also slightly inward. Your arms hanging naturally with palms touching the thighs. Keep the head and neck erect with eyes looking straight ahead. Just breathe naturally.



Wu Ji Posture



Standing posture: Squat down a little allowing the knees to come inwards toward one another. Then flex both knees outward like riding a horse. This adds torque to the tendon lines of the legs (This stance should also be used in your Yijin Ching practice). Meanwhile, slowly raise and stretch forth your upper arms slowly, and have the armpits "opened" (with enough space to hold an egg in it). Slowly raise forearms, which should be parallel to each other, to the ground-paralleling level with palms facing downward and fingers straightening naturally. Keep the backs of the hands and the forearms at the same height (See photo above & Fig.1and Fig. 2).



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Main Points

Stand with soles in full contact with ground surface and with toes gently grasping the ground. (Refer to Fig. 3) Point knees to insteps, but do not exceed the perpendicular of the toes. Shrink & gently contract anus, withdraw hip and draw in the abdomen a little. Relax the torso completely with shoulders and elbows, twisting free without stiffening. Keep lower limbs standing freely. Relax thighs and calves and erect your torso by raising your core upwards. Curve the chest a bit inward and, imagine as if you were uplifting your tailbone. Look straight ahead with regular Qigong breathing. Inhale through the nose and exhale through the mouth.

1st hold up all fingers naturally. Do not put forth any strength nor stiffen. Hold up thumb naturally beside forefinger. Keep forefinger in line with the back of the hand. Lower the positions of forefinger, middle finger, ring finger and little finger naturally and sequentially, shaped like staircase. If you imagine that you are trying to hold a small bowl in each hand by palming it as gently as possible, you will have the correct hand position. If you fully open and stretch your hand and fingers out as far as possible and then just let the entire hand relax it will naturally achieve the correct hand position.

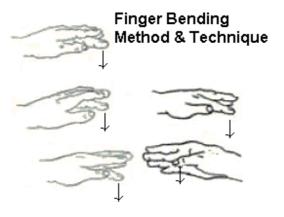
To correctly practice this method, begin by standing in the void (Wu Ji) for a few minutes to relax and calm the mind. Count backwards (10, 9, 8, 7, 6, 5, 4, 3, 2, 1) a few times to help quiet the mind. Perform 3 repetitions of "propping up the sky" from the Eight Brocade. After the 3rd repetition relax your arms back into Wu Ji and then squat down a little deeper and move into

the fundamental Arhat posture just illustrated and discussed above by slowly raising your forearms upwards and elbows slightly forward and out away from your body. The goal is to eventually hold this posture for 20-minutes and then continue with the "Finger bending exercises" before ending the practice. After finishing the finger prescribed finger bends, relax with your hands covering the dan tien (3 inches below your navel) to allow the energy to settle. Finish by walking around for several minutes to relax the legs and circulate the accumulated chi and blood flow.

In the early stages of Zhang Zhuang training, you may shake or vibrate uncontrollably, sweat intensely, feel itchy or tingly, various sensations of heat or cold, your feet may bother you, your muscles may feel sore, especially the thighs, calves and shoulders. You may experience numbness or some type of asymmetry in terms of physical balance or even asymmetry of the sensations described. For example, one side of your body could feel warm and the other side could feel cold. However, with continued practice, usually by the 6th week, this will become a very pleasant exercise that you will look forward to doing each day. Persevere it is well worth the effort. As your chi gets stronger, the exercise becomes pleasant and effortless. The author has personally stood in the fundamental Arhat for 3 hours straight in a state of pure bliss. Every internal style of martial arts that focuses on chi development and internal strength utilizes Zhang Zhuang as the primary chi building exercise. This is truly a remarkable method of Qigong training with a history going back 1000's of years. With consistent practice, it should only take approximately 4-months on average to become fully proficient in this method.

Secret Finger Bending Method

The fingers (and corresponding toes) of the hand are associated with the various organs and meridian systems of the body. Bending the finger of each hand down at the knuckle where it meets the top of the hand during the Fundamental Arhat posture causes chi to flow through different pathways inside the body. The method of bending is illustrated below. It is important to keep the other fingers in their proper position, while bending or pushing down the selected finger. Also, do not bend down more than 30 to 45 degrees as over bending cuts off the flow of chi.



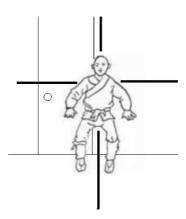
The middle finger is associated with the Heart, but it will effect the entire circulatory system as well as the central nervous system. The ring finger is associated with the Liver, but will also effect the eyes and gallbladder. The index finger is associated with the Stomach, but will effect the entire digestive system including the spleen. The pinky finger is associated with the Kidneys, but will effect the Urinary system, bones, ears and sex organs as well. The Thumbs are associated with the Lungs, and will effect the entire respiratory system including the skin, nails and hair.

A note on the "organs". When we discuss the concept of organ (say, the "kidneys") as is referred to in "Traditional Chinese Medicine", this is most often not a reference to just that one specific organ, but a reference to the whole element (in the kidney's case, "Water") - to the entire energetic stratum of the body (including specific organs, tissue, dynamic) to which that element refers - according to Traditional Chinese Medicine. For instance, "kidneys" could be used to refer to all of following: the kidneys, urinary bladder, constitutional & sexual energy, bones, marrow, and the dynamic of that whole layer of the human body. All of those, as one thing: the water element, which is simplified by just saying "Kidneys". In other words, we are working not only the specific organ, but also everything else in the body that is associated with the same "element".

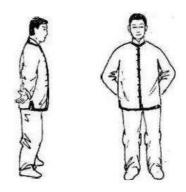
- 1) While bending the middle finger, Chi goes to the Heart system
- 2) While bending the ring finger, Chi goes to the Liver system
- 3) While bending the index finger, Chi goes to the Stomach system
- 4) While bending the pinky finger, Chi goes to the Kidney system
- 5) While bending the thumbs, Chi goes to the Lung system. Chi will also rise to the head from this practice.

Bending the thumb, ring & index fingers together causes chi to flow through the Triple Burner and will effect the entire torso.

- 1) Feel your body weight throughout the entire foot, but especially in the center area. A great exercise to practice is to stand with a fairly heavy book on top of your head, like the old "charm school" posture & balance exercise. This will give you the correct feel in your feet and is very beneficial in learning how to stand correctly. You only need to practice for a minute or two each day to get the feel of it.
- 2) If possible, stand where you can see your reflection in a mirror to visually help you with your alignment. Also, if there is some form of vertical straight edge that you can see and align with the center of your groin to the top of your head, this can be extremely helpful. In my home, this can easily be done with a door jam (vertical edge) and the bathroom mirror, by standing in the hallway.



3) If your arms or shoulders get tired or sore during the exercise, place your hands on your back near the kidneys with palms facing out, resting them there until you feel ready to return back to the armchair posture.



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The Special Physiological Characteristics of the Standing Exercise

1) A highly adaptable form of mental and physical education.

The Standing Exercise can be practiced almost any time, anywhere, without the need of aids, apparatus, large spaces, etc.

Standing exercise is most effective, since it combines conditions for the development of a beneficial inhibitory state in the cerebral cortex (C.C.) with the steady increase in metabolic and cardiovascular activities. Hence, it is a thorough form of rest and exercise. Furthermore, for the healthy and those with a sound basis in the "treatment" exercises, a slight adjustment of posture and mental activity produces much greater exercise value, putting the C.C. into a highly concentrated state and the body into a state of hair-trigger sensitivity and free-flowing strength.

2) A Non Oxygen-Debt Exercise.

Many forms of exercise involve concentrated bursts of mental and physical effort during which the breathing is restricted, or suppressed. During such exercise, insufficient oxygen is provided for the body's needs, resulting in labored or forced breathing. Such oxygen debt is accompanied by the inefficient dispersal of waste products such as lactic acid. The strain put on the organism by such phenomena is considerable. The Standing Exercise, however, cause the practitioner's pulse to maintain a certain increase (though never more than twice the normal rate), while the respiration remains unrestricted, indeed deepens and improves, oxygen intake keeping pace with oxygen consumption.

- 3) The Effects on Blood Circulation. During the practice of the Standing Pole Exercises, while the muscles maintain a certain degree of contraction, breathing is not restricted. Hence, thoracic and abdominal pressure do not suddenly increase and the phenomena of excessive expansion of the right atrium cordis does not occur after practice. Rather, the pulse rate rises and drops gradually during and after practice, making it very suitable for practice by those with heart trouble or the very frail. In addition, the maintaining of the posture for a period without moving means that, once blood circulation has speeded up and is flowing freely, it will not be disturbed or obstructed by sudden movements, bending, twisting, locking joints, etc.
- 4) Posture. Many of the unconscious tensions and resulting aches and pains in the body are the result of posture defects. The Standing Exercise will give the practitioner the chance to become aware of such tensions and defects, providing an excellent method for gently and naturally eliminating them over months and years.
- 5) A Form of Diagnosis and Treatment Combined.

The Standing Exercise is an excellent method to investigate the physiological changes undergone from the resting levels to the exercise state. These changes occur and can he observed while the body is static, employing fixed standards of form and time according to the limits of the individual. Under these conditions each physiological function is raised within reasonable and stable levels, and so it is a most scientific method of diagnosing the objective norms of each organ's condition in the active state. This method of diagnosis in the active state can be used to supplement the old style of relying mainly on diagnosis from pathological anatomical

material, and the common method of diagnosis based on inspecting the normal or pathological functional norms of each organ in the passive state. This is important because the objective norms governing the development of disease are not limited solely to affirming the anatomical structure changes of the various organs, or to changes of objective norms in the passive state. There are certain chronic illnesses which do not exhibit functional changes while in the passive state, only becoming apparent during the exercise state. Investigating the objective norms of the functional activities of the organs in the active state is thus a new science in modern medical research. Most importantly though, the Standing exercise is a viable and effective method of self-treatment. As a non-strenuous but thorough mental and physical exercise they can be practiced by even the very frail and seriously ill, combating and treating illness, changing the constitution and strengthening the body without the side effects of certain medicines or other forms of treatment. This is effected by one's own labors, a psychologically very important factor in combating and recovering from illness. They are thus a way to resolve, partially at least, the basic questions of frailty due to illness, treating chronic diseases which do not respond to treatment and depression and psychological problems during illness, combining diagnosis and treatment and strengthening the constitution in the most natural and beneficial fashion. Accordingly, it can be seen that they have much potential for providing new material in the study of geriatrics, chronic disease, sports physiology, sports bio-rnechanics, sports bio-chemistry, sports medicine and in the combining of Chinese and Western medical traditions.

Therapeutic Foundations

1. Preliminary Investigations into the Physiological Basis of the Therapeutic Value of the Standing Exercise.

The question which strikes one most immediately in the study of Qigong is, what is qi or chi? One can see it simply as a concept adopted by physicians in ancient China to make sense of their observations after the clinical application of their methods of treatment, and also by Taoists to rationalize their methods of cultivation and the phenomena they experienced during practice. Likewise, one can rationalize it as an expression of the body's natural defense and self-healing capabilities. Chinese traditional theories vary in their explanations of it and its make up, and though schools of thought differ in their emphasis on it as a material or immaterial, physical or metaphysical phenomena, it is most commonly talked of as a definite physical energy it is easy to dismiss all such theories as mediaeval concepts not grounded in objective reality resulting from the misinterpretation of observed and subjective phenomena in the absence of scientific methods, and thus to dismiss qi as pure imagination. Nevertheless, this theory of the qi flowing through channels in the body has persisted for more than two thousand years, and the sheer volume of medical, Taoist and qigong literature recording the subjective awareness of it and its movement within the body forces us to give it serious attention, and to recognize that there must be an objective basis to the concept involving the relationship between mind and body. In essence, it's the same concept as "prana" flowing through the body during the practice of Yoga, which also has a long history of health benefits.

In Nature Magazine published on 10th March 1978, an article appeared by Gu Hansen of the Shanghai Nuclear Research Institute. In it she presented the experimental evidence demonstrating that the wei-qi (external energy) purportedly emitted by qigong masters from a point on the body was, in fact a low frequency infrared signal. This gave rise to a great deal of discussion, and a variety of theories couched in scientific terminology have been proposed to explain qi and its workings within the body.

Unfortunately, despite investigations, no further evidence can be brought forward to shed any light on the existence, workings or composition of qi in the body, or of the existence of channels through which it might flow. Discussion of these various theories is fruitless, since they all lack solid experimental evidence and also prove incompatible with the traditional theories of the workings of qi to which they are being applied. Even worse, many writers on the subject endeavor to explain the problem by freely mixing modern and traditional theories, to absurd effect. Thus, the mystery of qi remains unsolved. It may he that concentration on a spot on the body excites nerves to the benefit of health or that some electromagnetic phenomena is involved. It may also rum out that several different phenomena are behind the various manifestations of qi. What is clear is that if the mystery is to be explained, there must be far more sound investigation of the physiological and psychological factors involved and a rational assessment of the evidence, rather than jumping to conclusions with half-baked theories or simply chasing after the discovery of some mysterious energy. There is a burgeoning literature in China on the results of the clinical application of qigong and the recovery from illness through its practice, demonstrating its undeniable value in the treatment of a wide range of illnesses and for the preservation and development of health. However, there has been a surprising unwillingness to discriminate what is really essential and of genuine value in practice. All manner of styles are practiced, some complicated, including various combinations of breathing exercises, meditations, movements of qi with the mind, postures and movements, others very simple. Many different methods of meditation and concentration are advocated. Yet, a broad range of styles and methods have proved to be effective for a surprisingly similar range of ailments and with roughly the same range of success. There is no clear clinical evidence to suggest that one method is radically more effective than any other, for instance, that concentrating on the "Dan Tian" (2nd chakra) and circulating the qi is more effective than other methods of meditation. So long as the posture and meditation method are appropriate, allowing the practitioner to relax and concentrate while combining a degree of exercise, good results can be obtained. There is thus a great tendency to put the cart before the horse, emphasizing a

specific technique as vital, when it is the overall state of relaxation coupled with exercise which is of value. Much more discriminating investigation is required if such methods as the "self-treatment" styles of qigong are to be definitely demonstrated as especially effective in treatment.

Another problem is that there has been insufficient elucidation of possible differences between mental states achieved by different meditation methods and if these affect the body in different ways. Indeed, the whole relationship between mind and body, how far and in what ways mind affects body and vice versa and other questions raised by qi-, gong phenomena, such as the part played by self-suggestion and self-hypnosis, have all to be investigated in detail.

Finally, there is a great tendency to stick to traditional techniques, despite the fact that some can lead to bad side effects. This is especially true in the case of over concentration a point on the body or the "self-motion exercises", which can lead to nervous disorders. Clarification of what is really essential in the practice of Qigong should enable such methods to be avoided.

Yet, despite the claims of traditional theories and the mysteries which remain, scientific investigations have demonstrated the basic physiological factors which underlie the therapeutic value and effectiveness of Qigong exercises. Though the following brief account covers the major therapeutic factors behind Qigong practice in general, it is written with special reference to the standing form of the Standing Pole Exercise. This is because the standing forms have proved most effective in the treatment of a wide variety of ailments, including chronic tracheitis, gastroenteritis, hepatitis, cardiac disease, high blood pressure, neurasthenia, chronic rheumatism, rheumatic arthritis, lymphoma, thyroid enlargement and others, as well as especially suitable to the development of a strong and healthy physique.

1) Effects on the Cerebral Cortex and Central Nervous System.

The importance of the cerebral cortex (C.C.) to the human organism is now fully recognized. It controls the whole of the central nervous system (C.N.S.), directing and coordinating the different functions of the body according to input received from both inside and outside the body. If the C.C. becomes over-excited or exhausted, then its functions become disordered. The various functions of the body suffer from this decline in control and regulation sometimes to the point of pathological symptoms developing, that is, illness. Likewise, illnesses, as malfunctions of particular parts of the organism, send harmfully stimulating signals to the C.C., placing a further burden on it, which will again influence the whole body. The major aim of the Standing Pole Exercise and indeed all Qigong meditation, is to break this cycle, providing the C.C. with beneficial stimulus, causing it to relax into a protective inhibitive state. This reduces stimulation from chronic illness, giving the C.C. adequate rest and recuperation, allowing it to gradually recover and maintain its normal functioning capacity, and thereafter strengthen it. This inhibitory 11quiet" state is contributed to by three main actors. First, relaxation and concentration of the mind and thoughts. By relaxing the mind as much as possible while maintaining a focus of concentration, one shuts down most of the excited areas of the C.C. allowing it a degree of rest and recuperation and breaking the cycle of harmful reoccurring excitation. A specific method of concentration is generally used, since it creates a new, pleasant focus of concentration to replace the old, pathological ones, though there is the danger here that the new focus will also be too strong, causing excess control or overburdening of the C.C. Clearly, for health purposes, the more gentle, pleasant and relaxing this focus the better. Second, the improved blood circulation combined with deeper respiration increases the supply of oxy-hemoglobin to the cells. This helps to produce a very relaxed sensation, which in turn provides a beneficial stimulant to the C.C. The greater this stimulation, the deeper the inhibitory state achieved, helping to disperse the focuses of harmful reoccurring excitation. Third, stimulation from posture. When practicing the Standing Pole Exercise, one must first assume the required posture, then hold it for some

period of time, thus producing in the C.C. a focus of stimulation for its maintenance. Since there is no change in the outer form, beginners who have not yet, or have just, established this conditioned reflex will gradually see a reduction in input from the external perceptive organs. At the same time, the internal receptors (muscles, ligaments, joints, etc.) will not be accustomed to the new stimulation and respond accordingly, making it difficult to relax the processes of the C. C. at once. Thus, in the early stages of practice one will be disturbed by the physical reactions, giving rise to more random thought activity. Hence the usual need to employ a suitable mental activity which may help to rid one of anxieties, troubling thoughts and also contribute to physical relaxation. The reactions of, the muscles and the general changes undergone during practice will create numbness, aching and other reactions. These changes are called "new stimuli" and they cause the muscles to become excited. This excitation is transmitted through the nerve fibers to the C.C. There they undergo analysis and signals are released to see if the ache/numbness has changed for the better or if any other reaction has occurred. This reflex is called the "probing reflex." It is transmitted to the affected part, and maintains the posture. If the "new stimuli" signals continue unabated from the same place at the same level and quality, owing to the increased endurance of the muscle fibers and the nervous system becoming accustomed to the signals, their peculiarity declines and the "probing reflex" is no longer emitted. Thus the aches, numbness and pains will gradually disperse and will be followed by a warm, slightly numbing but very comfortable feeling. This feeling is a most beneficial stimulus to the C.C. The deeper it becomes and the longer it lasts the more it will promote the relaxation and concentration of the C.C. and the inhibitory state developed. The necessity of daily practice, perseverance and patience to get through this early period of pains and troubles thus becomes obvious.

This inhibitory state is only restricted to certain cortex cell groups, and the depth of the "quiet" achieved depends on its distribution in the C.C. If it is limited solely to the upper layers it is only a "shallow" state, while if it extends deep into the

layers, then a "deep" state has been achieved. Electroencephalogram investigations have demonstrated this state to be quite different from sleep or hypnosis. It is characterized by the appearance of beta wave in the front portions of both hemispheres, which increases in amplitude and expands towards the back of the hemispheres as practice progresses and the inhibitory state deepens. The alpha wave, however, undergoes little change, though sometimes exhibiting a slight increase in amplitude, cycle extension and a trend towards a gradual slowing of rhythm.

Investigations into relaxed sitting and lying postures show a reduction in reflex, muscular, blood-vessel and skin electrical reactions, demonstrating a general inhibition of the C.N.S., especially the Sympathetic Nervous System, beneficial to rest and recuperation of the C.C. This is largely felt to be due to direction of concentration away from external stimulation, since concentrating on a mathematical problem produced much the same initial phenomenon, Investigations by Dr. Xu Yingdou of the Beijing Co-operative Hospital suggested, as one might expect, that the change in the inhibited state in the C. N. S. and C.C. took longer in the practice of a standing posture than a lying or sitting one.

2) Blood Circulation.

The maintenance of a certain posture during practice means that the muscles must preserve a constant degree of contraction, bringing an increase in pulse rate. However, the posture is also a "relaxed" one with all joints slightly bent, preventing the obstruction of blood flow due to excess tension or locked joints, and greatly reducing energy expenditure and strain. This creates the best conditions for the promotion of blood circulation, and hence the mobilization of blood in the internal organs, oxygen exchange, and other associated metabolic processes. Under such conditions, the small blood capillaries in the muscles expand, reflected by buzzing/numbing in the feet and hands, crawling sensations on the skin, and the whole body becoming warm or sweating.

Investigations by the Beijing Railway Hospital and No.1 Auxiliary Hospital showed that after forty minutes' practice of the standing "A-llround Stance" red blood corpuscles increased by anything from 21.000 to 5.900.000 per sq. ml.; white blood corpuscles by 400~.000 per sq. ml., and hemoglobin content by 1.5-2.3 gms. per sq. ml. The importance of this in increasing oxygen supply to tissues and improving the body's immune system is obvious. During simple lying and sitting postures the pulse rate and metabolic rate all tend to drop, creating maximum conditions for entering a quiet state, also reducing oxygen consumption and the deep relaxation allowing unrestricted blood circulation. During standing exercises the pulse rate increases at a steady rate, eventually reaching a stable level. Metabolic rate and oxygen consumption also show a gradual rise, then stabilize. Immediately after practice the pulse rate does not drop suddenly, there being little change between the first ten seconds and last ten seconds of the first minute after practice. This means that neither during practice nor immediately afterwards does excessive expansion of the right atrium occur as in most energetic sports. (This expansion occurs in any exercise where oxygen intake cannot keep up with consumption, or the breathing is restricted. Immediately after stopping, the obstructed blood in the veins of the outer thorax rushes in under pressure).

3) Respiration.

During the practice of the Standing Pole Exercises the hands and elbows are raised to differing levels. This means that the muscles of the shoulders, back and upper chest are needed to support them, creating tension across the upper torso. This, combined with relaxation of the abdomen, induces the onset of abdominal respiration without deliberately forcing it. As one progresses, the chest muscles will gradually relax, thus allowing thoracic expansion to join in. In this way, once a high degree of overall relaxation has been reached, a very deep and perfectly natural breathing results. During simple sitting and lying forms, there is no rise in pulse rate, oxygen and energy consumption dropping due to the high degree of mental and physical relaxation. As a result, breathing deepens and becomes very slow.

Standing postures see a rise in the pulse rate and a marked increase in oxygen consumption and metabolic activity. It is thus essential to allow the breathing to respond naturally to these demands as it adjusts itself to the needs of the metabolism. Deliberately slowing it down could prove very harmful. In the early stages, the respiration rate may increase quite considerably. But as relaxation develops, the rate will decrease as the breathing deepens and lung capacity increases. Accompanying this development in lung capacity will be a beneficial increase in the permeability of the pulmonary alveolus wall and expansion of the lungs' capiallries. Further, greater chest expansion during inhalation increases pressure in the thorax, helping to draw blood out from the veins into the heart. Likewise, exhalation releases the pressure, helping the heart to push out blood. Not enough is yet clear concerning the effects of respiration vibrating through the nervous system. Clearly, the rhythm of deep, regular breathing is a beneficial stimulus in helping the body and mind to relax, and it is often used as a focus of concentration. Certainly, inhalation causes "tension" while exhalation causes "relaxation," a phenomenon utilized by many of the calisthenics types of qigong exercises and martial arts techniques. Lastly, there is the beneficial massage effect of deep respiration on the internal organs. When inhaling, the diaphragm muscles sink down and the mediastinurn expands, while when exhaling the mediastinum contracts and the diaphragm muscles rise up. This expansion and contraction has the effect of slightly stretching the heart and revolving the heart and large blood vessels. At the same time, it prevents ossification of the ribcage, whilst increasing blood flow, helping to prevent hardening of the arteries. Relaxation of the abdomen allows the abdominal organs to settle, while the movement of abdominal respiration coupled with pressure changes in the thorax creates a massaging motion on them. Investigations have shown that such a massaging action on the liver causes an increase in choleresis, aiding digestion, prevents stasis of the bile system and expands the blood capillaries in the liver. Such massage also helps to prevent stasis in the stomach and intestinal system, working against the development of ulcers, gastroenteritis, constipation and other abdominal disorders.

4) Fatigue.

The Standing Exercise is a nonexertion exercise, and unlike other forms of exercise, practice brings an alleviation of fatigue and an accumulation of energy, so that one feels refreshed and full of vitality and strength after practice. The basis of this phenomenon was explained as early as the 1920's by the Chinese scholar Zhang Naiqi in his article "Towards a Scientific Interpretation of the Internal Martial Arts. He begins by investigating the real basis of fatigue, pointing out that it is not due to the simple energy required to perform an activity. He gives the example of walking. Say one walks a set distance of four miles at a steady three miles per hour, one would expect the same energy consumption and degree of fatigue each time. However, covering the distance while worrying about a deadline one must keep, or with a nagging pain in some part of the body will produce a much greater degree of fatigue than if one covers the distance chatting with friends or enjoying the good weather. He interprets fatigue as involving four elements:

- a) Tension in the torso.
- b) Tension in muscles not being moved or needed for movement unnecessary fatigue.
- c) Excessive tension in muscles being used for movement -partially unnecessary fatigue.
- d) Energy consumption due to activity-necessary fatigue.

To this we could also add straight mental fatigue due to worry, thinking, etc. though as Zhang Naiqi again points out, much of this fatigue is the result of the unconscious physical tensions it produces. This tension is largely manifested in the torso, especially the chest (as well as the shoulders and face). One can feel for oneself how, when one is angry, agitated or excited, the chest is tense and constricted. This tension can be a severe restriction on respiration functions, impairing atrium activity and the exchange of oxygen, poisoning the whole metabolism. Necessary fatigue is that resulting from the muscular tension and energy expenditure required to perform an act. However, we often use excessive

tension in doing this, and more importantly, do not just restrict this to the required parts, tensing other muscles unnecessarily. Lastly, we are constantly beset by unconscious muscular tensions. For instance, watching a fight or an exciting film, one tenses up; when writing one tenses the face or hunches the shoulders. Most noticeably, we maintain a constant inward and upward contraction of the stomach wall. This is to prevent the sinking down of the stomach and intestines, the artificial suspension of which feels normal due to conditioned reflex. This also further compounds tension in the chest. (A child's chest and abdomen are relaxed. A series of painful or alarming experiences develops the tension reflex, which after a while becomes a conditioned state which feels normal.) All of these are tensions which place the body under considerable strain, impairing many of its functions and causing a great deal of unnecessary fatigue. Indeed, Zhang Naiqi points out that in most people, unnecessary fatigue probably outweighs necessary fatigue. The postures assumed during the practice of the Standing Pole Exercises are an excellent method of reducing this unnecessary fatigue by the conscious relaxation of tensions, especially those of the chest and abdomen. Steady practice will make this effect more permanent, extending outside practice into everyday life, so that such tensions are permanently reduced or eliminated. The increase in coordination and control from the exercises, especially through the process of relaxed movement, will teach the body to relax during activity, using only those muscles required with maximum efficiency. Thus, first during practice, then in everyday life and activity these unconscious and unnecessary tensions are eliminated, with the resulting conservation of energy. This is of enormous importance in the fight against illness, the nurturing of health and the development of strength.

As with any system of exercise, one should consult a doctor prior to initiating any exercise regimen. It is also advisable to find someone competent in instructing Zhang Zhuang Qigong or standing meditation to assist in postural alignment as well as addressing other personal issues that may need to be addressed.

Body's reaction after Zhan zhuang

Through Zhan zhuang training the functions of the internal body will change and this will come with different reactions you can perceive in your body as shown below:

1) Tingling feeling

Tingling feeling is a body reaction intervening often for beginners. When it starts the feeling maybe be uncomfortable, but after some time we generally get use to it. Along with the period of time assuming Zhan zhuang, the localization of tingling reaction may also change: for example it may start in your finger then move gradually in your foot, leg, shoulder and later back etc... You can feel also in addition a sensation of "ants walking" on your skin moving from one area to another. This is in fact the results of dilation of blood vessel capillaries, as the blood flow is increased through post standing.

2) Swelling and aching feeling

After around one to two weeks of daily training, you may feel in your leg, knee, waist, ribs, shoulder, neck, etc...different degrees of swelling, aching and tiredness in the whole body, this is in fact a natural physiological reaction of the body after this starting period of post standing: within additional one or two weeks of training, this sensation should disappear.

If parts of body were wounded in the past, during post standing these old wounds may suddenly reactivate pain, this is called "old wound" reaction. There is another type of local reaction, for patient suffering from neurasthenia, it may trigger headache, those suffering from stomach and intestines diseases may feel abdominal pains, those suffering from arthritis sufferer may find their joints swelling and aching, for people suffering from goiter (large swelling of a thyroid gland) may have local feeling of "needling" (or acmesthesia), etc...

All these reactions will generally disappear by themselves within 3 to 10 days. They are in fact good preliminary signs of recovery as they are testifying the very significant

changes happening in the internal body with Zhan zhuang practice and reinstalling virtuous metabolism functions.

3) Warming feeling

After 20 minutes of Zhuan zhuang the whole should get warming feeling and if you increase the physical effort involved in (we will see below how to increase it) you may even perspire. The amount of perspiration is closely related to the amount of physical efforts involved in standing (physical efforts are depending on the two parameters total time of standing as well as the bending angle of the joints during standing).

When you can reach perspiration state in your post standing your whole body will feel a special relaxed sensation of well being. Another reaction can be due to the stimulation of digestive function, as better wavelike muscular contractions of the alimentary canal, bringing many people to belch or to fart.... Sometimes large outburst of intestinal gas may appear noisy and embarrassing but in any case it provides comfortable relief!

4) Vibrating feeling

To assume correctly your posture you need to keep your four limbs muscles incessantly contracting and relaxing. So as time goes your working muscles will progressively bring up quivering. In the beginning quivering should be quite light, you can't even see it, but once you touch locally (knee, thigh ...) you can feel it. Later quivering becomes more obvious and you'll be able to see your muscles contracting regularly. Then later you find pulsation phenomena, sometimes the foot may stamping on the floor in a "rub-a-dub" movement.

After passing some times in pulsating movements, muscle endurance and nerve system control reach a new level of achievement so that pulsating movements will rapidly diminish and even disappear.

5) Asymmetry feeling

a) Left/right level asymmetry

During post standing training it often appears obvious dissymmetry between both hands position while the practitioner may feel by himself still perfectly symmetric.

Then if you correct back to a real symmetric left and right posture, he may feel now difference between his both sides. The reason is that both sides are responding physiologically caused by for example a different muscular development or/and daily unsymmetrical physical effort solicitation in each side.

b) Left/right different level of numbness

In post standing you may feel in one side swelling and needling but in the other side absolutely no swelling and needling, or for example one side headache and the other side no; one side feeling comfortable, then other side no, etc... This feeling is very obvious for patients suffering from high blood pressure and those from hemiplegia.

c) Left/right different level of perspiration

Some practitioners, due to unadjusted nerve excitation may perspire abundantly in one side while the other side is completely dry. For example the case of facial asymmetry: right side of the face is perspiring but not left side. This dissymmetry has been frequently demonstrated under clinical tests.

6) Left/right different level of circulation

In this case when starting post standing, both arms are placed at the same level, with same load (the weight of each arm) but after 20 minutes one arm's color will remain normal while the other arm will be dark purple. One side having swelling and heavy feeling from finger up to shoulder and the other side having no feeling at all.

7) Left/right difference of temperature

In this case the difference between both hands is very obvious, just touching one hand you will feel it very hot, then touching the other it will very cold. This difference of temperature has been also verified and controlled under clinical tests electronic checking each time the temperature of middle finger in certain cases this difference may reach 10°C. There is also the case of a practitioner whose five fingers presented radically different temperatures. Concerning these types of asymmetry feeling and reaction following Zhan zhuang, we have generally noted that after 2-3 weeks of constant training, all them are significantly reduced and after 2-3months they have practically disappeared.

8) Well being feeling

Under sufficient Zhan Zhuang practice, the readjustment of signal excitation quality in human cerebral cortex which is directed connected to major functions such as senses, motor and many others physiological functions, will directly improve these same functions, as a general result your internal body will reach a state of special comfort, optimistic and light in your mind, chest and belly flexible and without pressure, pathologic symptoms reducing, spirit elevated, four limbs gaining strength and whole body relaxed. This well being feeling comes along with your progress in Zhan Zhuang and constitutes a very good psychological and physiological support for the practitioner to deepen either his treatment for deeper recovery or to build more martial abilities from this basic level of training.

What to anticipate:

As a general rule, you can expect that after two weeks training standing exercise, tingling, swelling, aching and pains reactions become more obvious, on the third week, then they can gradually be reduced. In the contrary, before 2-3 weeks of training, one's may not in general feel the well-being sensation, but after 3-4 weeks it should could appear progressively; for a longer period of training well being sensation should be more obvious. After six weeks on training and with appropriate adjustment of physical efforts in the training: tingling, swelling, aching and pain reaction may appear again before disappearing after a certain time of practice. In fact these incessant situation coming/fading back and forth are the external signals paving the enhancement of healing or curative effects and the strengthening of your overall body.