

Tai Chi Quan daily can promote health

Abstract

Martial Art Tai Chi Quan (TCQ) belongs Zone 2 Exercise means a smooth transition from “force to no force” or “force or not” in two opposite poles in balanced loops, e.g. relax inhale & exhale when in walking meditation from heel to Toe relaxation: “white (force) or black (no force).” This TCQ symbol has been introduced during 2008 Summer Olympic Game in China (in 24 postures to keep the square symmetry). Subsequently in 2020 TCQ was adopted to the UNESCO Intangible Cultural Heritage.¹

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Introduction

Young Man Christian Association (YMCA) is a nonprofit worldwide organization where about hundreds sites indicated by abbreviation Bethesda Chavy Chase (BCC) where it has world-class exercise equipment, & 2 indoor swimming pools and one large outdoor pool. Among memberships we have more than half are seniors. There are Yoga & Tai Chi Quan (TCQ) etc. group exercise programs. TCQ can from China performed 3 decades ago during the Asian Pacific Heritage Month on Washington DC Freedom Plaza, Figure 1. TCQ has been performed using the spinal core muscles without using limbs muscles. The limbs muscles are mainly used for transmitting and sensing. For example, the limbs can transfer kinetic energy and momentum mediated the gravitational energy. We selected 8 postures to demonstrate such a transfer:

(1) Lifting, (2) Repulse Monkey, (3) catching the birds tails, (4) waving hands in the cloud, (5) golden rooster standing on one foot, (6) fair lady play shuttle, (7) brush knee and reverse (8) crossing hands.

Section 2 Root course of Tai Chi Quan health benefits: The Tai Chi Quan is a mindfulness meditation. It is relaxing e.g. early “pushing hands” becomes “sensing hands”. Overall Tai Chi Quan may be called the Zone 2 exercise, while Zone 1 must increase the cellular level energy powerhouse, known as mitochondria organelles (German: Lines & points). When practiced daily, it can promote cellular efficiency in energy production powerhouses within our cells Figure 2. When they are healthy, we will be free of many neurological diseases such as Parkinson or Alzheimer etc.

$$ATP=ADP+P + 5.7 \text{ kcal per mol} . \quad \text{Eq. (1)}$$

The human genetic material has been coded on DNA. (Made up of four chemical bases: zero-order would be adenine (A), guanine (G), cytosine (C), and thymine (T), about 3 billion bases, and more than 99 percent of those bases are the same) (The first-order form pairs e.g. A-T and C-G may be also attached to sugar molecule and a phosphate molecule nucleotide.

It turns out Mitochondria are very efficient balanced chemical energy (ATP—ADP by adding water (hydrolysis) to loss one phosphate generating energy (57KJ per mol) for themselves organelle and for their host cells (we, homo sapiens) to use they produce ATP after hydrolysis: Among all foods, soy beans are No.#1 ; Beets are No.2; Grape fruits are No’ 3, for growing of those hundred Organelle called Mito’s or mitochondrial organelle that turn hydrolysis of Adrian Tripple Phosphates (ATP) + water to Adrian Double Phosphates (ADP)+ Phosphate (P) and kilo calorie energy per mole. These energies help us to stand up and with thumbs to use tool become the smart kind called “homo sapiens.” we have digital information in or Y shapes genetic material known as homo-sapiens (smart ones).

Section 3 The following depict Tai Chi 8 Led by Dr. Chung Wu at further limited to BCC YMCA Section 3 Tai Chi Quan has been a martial art in China for several hundred years. It has (1) Tai Chi 105, (2) Chem Mn-Tien Tai Chi 37 T, (3) China Olympic Tai Chi 24. Sunday Morning 8:30am-9:30am cf. “Figure 3”.

Section 4 Tai Chi [in (white) force-or-not (black)] will promote deep breathing, happy mood, healthy exercise, for power or not and the mitochondrial will feel add P back to ADP to be ATP (a storing energy to use up again. Balance is understandably preferred, thus Tai Chi daily) adversely stress including daily exercise such as Tai Chi Quan, occasionally under those pressure points, defined as those confluent points of (a) blood capillaries, (b) nerve tendons, as well as (c) muscle tendons Likewise we can form Tensor in 3 index as Albert Einstein did in the general relativity Due to the transfer dynamics, we wish to organize TCQ interns of tensor mathematical notation TCQ_{jk}^i . Let i denote the single person “I” breathing using the abdomen ab. Then ab has two components (inhale, exhale)

$$TCQ_{(j=\text{Left side or person say force}; k=\text{Right side or person no force})}^{Ab} \quad \text{Eq. (2)}$$

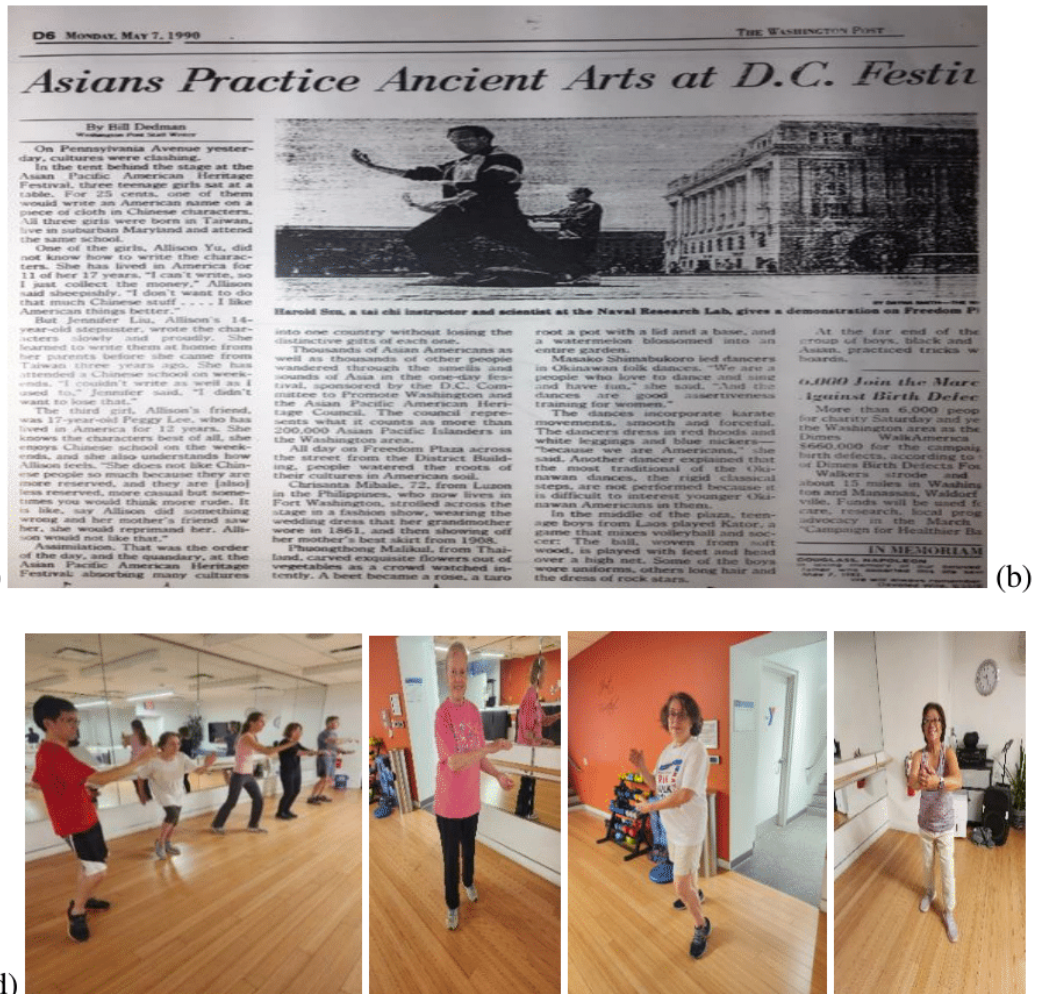


Figure 1 (a) Force-no- Force Symbol Diagram, for Tai Chin Quan (b) Dr. Harold Szu, NRLled Tai Chi Quan on May 7 1996 [3 decades ago] "Asian Pacific Heritage on Freedom Plaza," Washington Post;[Column D6] (c) Andy Tran "Tai Chi Salute".[Right hand fist, Left hand open palm and Left feet on toe, Right feet ready to kick]; (d) Noriaki Kinoshita (IMF of World Bank) "Repulse Monkey"; (e) "Golden Rooster Standing on one foot"; (f), Brush knee and reverse punch" (g), "Lift Hand" (h) Gary Barrett , (i) "Wavy hands in the cloud.

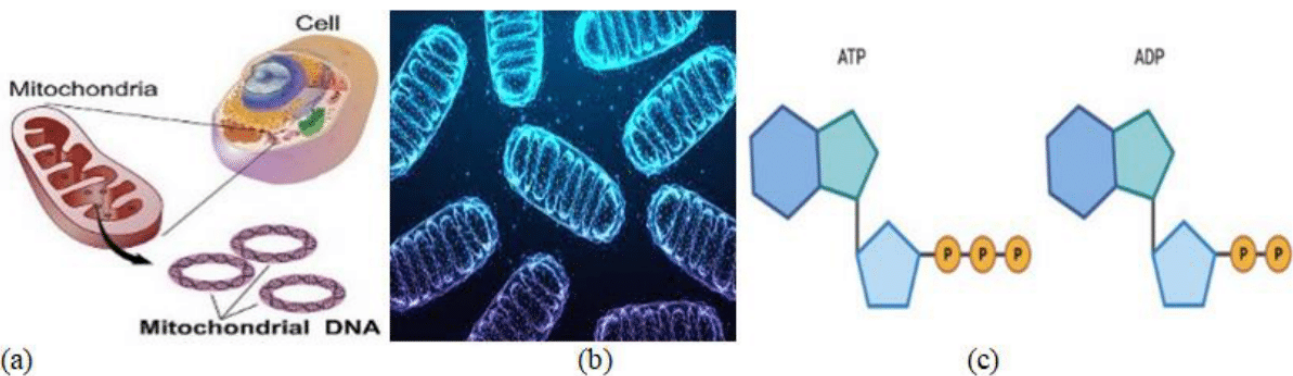
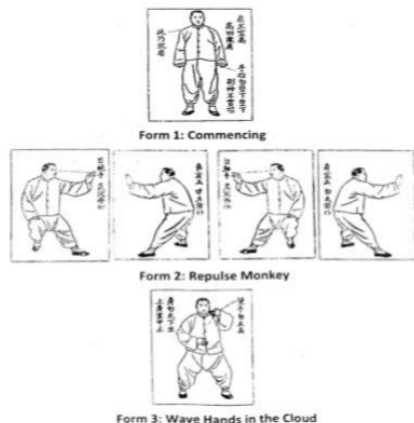


Figure 2 (a) Rod-line shape small organelles are mitochondria organelles that have their own ring-shape genetic material²:There are few dozen to few hundreds in different human organs. (b) Their co-existence with homo sapiens cells (c) Adenosine Triphosphate (ATP), which is a cell's energy carrier.ATP is made up of adenine, ribose, and three phosphate groups, with high-energy bonds between the phosphates When we drink water hydrolysis will dissolve one phosphate. The main job of mitochondria organelles is to add back the lost phosphate to ADP as if to charge Adenosine Diphosphate (ADP) back to the full battery Adenosine Triphosphate ATP after hydrolysis.

1. Commencing 開式: preparation, and body connection warm-up (repeated 8 times)
2. Repulse Monkey 倒揮猴: left and right styles (repeated 8 times)
3. Grasp Sparrow's Tail 握雀尾 (sub-forms: left ward off, right ward off, rollback, press, push): left and right styles (repeated 8 times)
4. Wave Hands in the Cloud 雲手: left and right styles (repeated 8 times)
5. Fair Lady works at the Shuttles 玉女穿梭 (or Flying Diagonal Form 斜飛式): left and right styles (repeated 8 times)
6. Golden Phoenix Stands on One Leg 金雞獨立 (or Single Leg Splits Form 分腳): left and right styles (repeated 8 times)
7. Brush Knee with Bowing Step 擡膝拗步: left and right styles (repeated 8 times)
8. Closing Form 收式: body connection cool-down (repeated 8 times), and closure

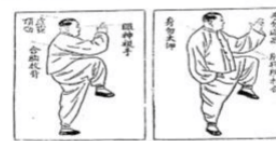
Notes: Each movement form is as simple as a "Single-form Practice 單式練習", and it can be expanded to be a "Sectional Practice 單段練習".



Form 4: Grasp Sparrow's Tail – Ward Off, Roll Back, Press, Push



Form 5: Fair Lady works at the Shuttle



Form 6: Golden Phoenix Stands on One Leg



Form 7: Brush Knee with Bowing Step



Form 8: Closing

Figure 3 Tai Chi 8 Graphic Representation. Since we have chosen 8 typical postures out CMC 37 postures. If we add two more inhale & exhale, then altogether 10 dimensions similar to Universe Relativity 10 dimension. (a) TCQ "Force (in white) and Black (no-force)" balance loops, e.g. the breathing inhale forced and exhale relaxing, all are natural, easy & emotional happy in the so-called Exercise Zone 2, as opposed to Olympic games competition are all in Zone 1, namely pushing the limit of physical ability, where the mitochondria organelle must be increasing their numbers density about over thousands per cell.

(b) This takes time and youthfulness as the Mitochondria have their own genetic material in ring shape, inherited from maternity side.

(c) Chemical Energy Production after our cells produce Andesine Tri Phosphate, which can then be hydrolysis then Mitochondria add phosphate molecule back as if charge the ADP empty battery.

Homo sapiens symbiotic co-evolution Nucleotides are arranged in two 3 meter strands that form spiral called a double helix. They must be wrapped around into chromosome by means of epigenetic (outside genetics). These double helix structures, somewhat like a ladder, similar to the way alphabet appear in a certain order to form words and sentences. Determines the information available for building and maintaining a second-order structures can determine the wrapping around Histone in epigenetic (outside). According to Harvard Prof. David Sinclair the role of Mitochondria organelles have ring-shape DNA, as well as the Epigenetic that guided genetic in our daily life can be gracefully. In plants, the organelle similar to mitochondria in function is the chloroplast. Both mitochondria and chloroplasts are involved in energy conversion processes within the cell. Mitochondria are responsible for cellular respiration and ATP production in both plant and animal cells, while chloroplasts carry out photosynthesis in plant cells, converting light energy into chemical energy stored in glucose. Both organelles have their own DNA and are believed to have originated from ancient symbiotic bacteria.

Section 5 Healthy Partners what make mitochondria organelles replenish themselves as more in quantity as well as in quality? When our cells communicate to them that they are needed through more endurance and adversary situations. Daily life, hosting homo sapiens

cells, need to do six things as follows: (1) Exercise daily, especially practicing Zone 2 Yoga, Tai Chi, etc. we need to (2) Eat less including intermittent fasting e.g. skipping dinner so that sick and weak host cells will be eliminated; and (3) Sleep more (e.g. providing dinner time to sleep) to repair cells including coevolution partners mitochondria organelle. Furthermore, we will (4) Social often replenish chemical hormone signals for emotional IQ, namely e-Q, (5) Stimulate Brains, and (6) Relax minds, "mindfulness concentrating in breathing" Remember the Sound of Music: "Que so lar, so lar, whatever will be, will be"; "the future is not for us to see, Que so lar so lar".

Conclusion

(1) Exercise Daily in mild & happy Zone 2 area, (2) Eat Less (e.g. intermittent fasting for our body cells but no direct use to inside the cell those desperate mitochondria organelles prefer soy beans, red grapes, beets, etc.), (3) Sleep Long our brains used about 20% energy but have no way pass out those waste byproducts unless resting. Furthermore, we shall emotional secrete so-called happy hormones, e.g insulin, etc. (4) Social Often, (5) Stimulate Minds (by Reading New Books, seeing beautiful artwork etc; as well as (6) Relax Minds (How to? "Do Your Best, Let The God/Buda Do the Rest"). Figure 4 ^{2,3}

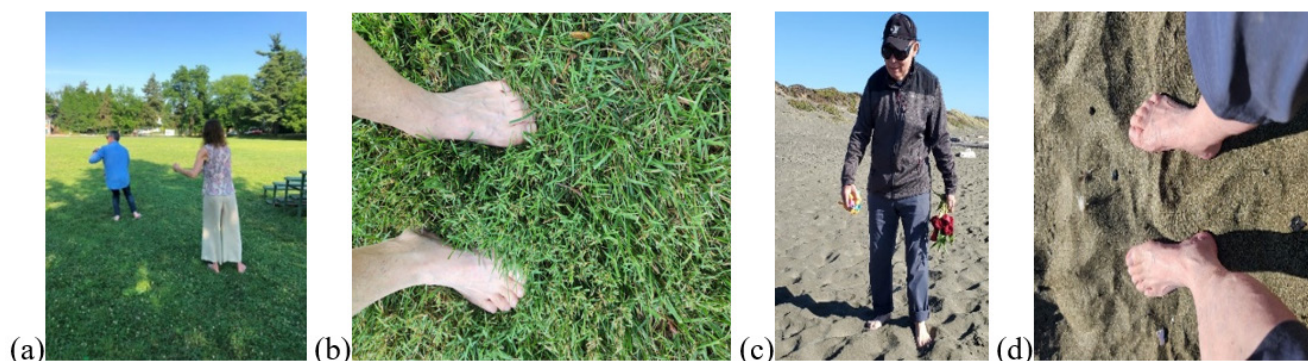


Figure 4 (A) Barefoot Grounding playing TCQ has been led by Dr. David Walls-Kaufman, and his student at YMCA grass court can improve the e-charge neutralization for the efficiency of energy powerhouse mitochondria organelles which can lead to mindfulness relaxation. (B) Barefoot grass grounding can remove electrical charge; (C) Likewise Barefoot Sanding may be safer than grassland, (D) as far as e-charge neutralization is concerned.

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Conflict of interest

The author declares that there is no conflict of interest.

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2. Sinclair D, Ph. D. *Lifespan, why we age, why we don't have to.* Harvard Medical School, NY Times, Bestseller. ATRIA Books. 2019:21. *If the genome were a computer, the epigenome would be the software.* 2019:14. *Mitochondria and cause of aging.* 2019:104. Exercise and mitochondria. 2019:124–127. Metformin (hours daily after Vitamin B supplement, as well as NMN for communicator with mitochondria organelles.
3. Harold Szu. Learned under George E. Uhlenbeck the Rockefeller University 1971, Biomedical Eng., CUA Wash DC. He wrote a lesson of creativity, (cf. editor. Ron Driggers, Applied Optics). While working daytime at NRL and Night Vision Lab in 40 years civil service, while practice during lunchtimes for hard Karate and soft Tai Chi Quan. He has trained 20 PhD graduated students, listed in NSF-sponsored Math-genealogy website. He has overall about 5 hundred publications available in free Max-Planck Research Gate. . He has been honored with Fellows of SPIE, Optica, INNS, IEEE, AIMBE, AIAA, Foreign Academician of Russian AS, Life Fellow of IEEE 2024.