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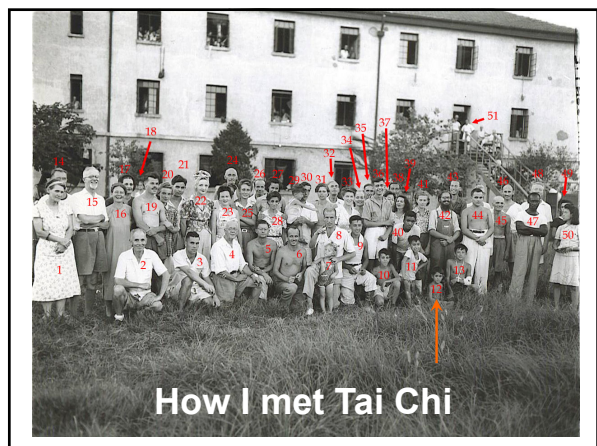
What is Tai Chi?

- T'ai Chi Ch'uan or Taiji (ying and yang flux) quan (fist) 
- Naijia – Internal (qi focused) Martial Art – credited to Zhang Sanfeng, 12th Century Taoist Monk
- Mind and Body Exercise/ Moving Meditation



Bob Orlando, Colorado based instructor

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- Tai Chi has been practiced for hundreds of years with many claimed health benefits; for example, low impact, muscle strengthening and improved balance
- Many of the health claims are benefits that are much harder to quantify; like a better life, clearer mind, more energy, or a longer life
- In ~~the~~ ~~last~~ ~~few~~ years, more and more scientific studies have started to specifically quantify and confirm some of the claims.
- But first,
 - What is Tai Chi?
 - Tai Chi Chuan was first credited to Zhang Sanfeng, a 12th century Taoist Monk
 - It is a Mind and Body Exercise, sometimes referred to as Moving Meditation
 - The ~~are~~ ~~3~~ key principles ~~are~~ ~~1.~~
 1. Avoid using force directly against force, 2. to protect the defenseless and 3. to show mercy to one's opponents
 - It is a Synchronization of upper body, lower body, forms and steps, energy flow or qi and breathing; Very similar to a coordinated group dance.
 - Traditionally to become a Tai Chi master requires 10 years of study full time
 - How does Tai Chi relate to me?
 - I met Tai Chi from my Father.
 - He was born in a WWII POW camp in Shanghai, China (The picture is the Chapei Camp, #12 is my dad - this was taken shortly before their release)
 - He practiced the Yu form everyday; He told me it helped with his back problems; He was 6'4"
 - I first learned part of the Wu form in my mid 20s in Miami - I was looking for a low impact exercise
 - In my late 20s I studied the Wu form in Las Vegas and actually made it thru the 108 forms.
 - Today I am learning the Ching Man Chen 37 form; I'm about 1/3 of the way thru it and I've been studying it for about a year in addition, to push hands and tai chi sparring

There are 5 Chinese family styles for the Solo Form, but more variations than I care to count.

Chen is fast and slow/varying speed form, Yang is a wider spread form, Sun is smaller movements and focuses on slow measured movement and Wu is an even speed but contained form.

Tai Chi Styles

Martial Arts:
Solo Forms (empty hand or weapon)

- Chen, Yang, Sun, Wu, Wu (Hao)
- Short or Long (108)

• Competition 42 Form (Combination)

• 37 Cheng Man Ch'ing – from Yang

Push Hands (with Partner)/ Tai Chi Sparring



Dr. Paul Lam's Tai Chi for Health Institute

Adapted For Health:

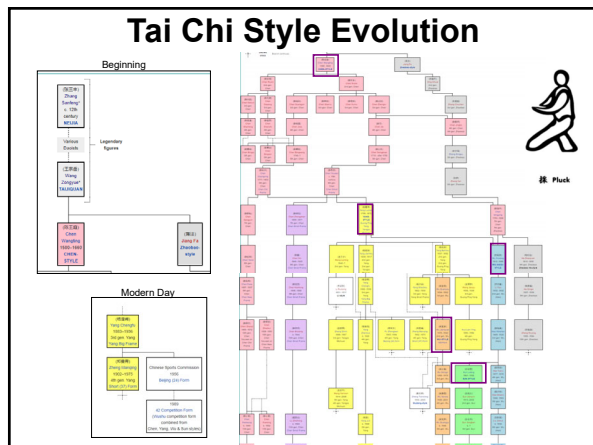
- Arthritis
- Diabetes
- Osteoporosis
- For Kids
- Beginner for Health
- At Work
- Seated



Roll back

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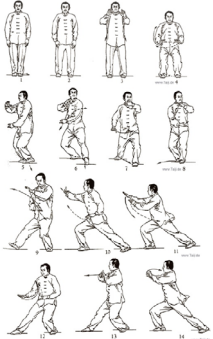
- Traditionally there are 108 forms, but there are many short form variations including the blended competition short forms.
- Push Hands & Tai Chi sparring are the partner/combat applications of Tai Chi.
- Most recently there has been a push for the forms to adapt to specific health concerns/needs.
- Most of these adaptations are from the Sun form, but the Seated variation is adapted from the Yu form
- Dr Paul Lam is at the forefront of these adaptations using his medical knowledge as doctor and Tai Chi knowledge (competed for many years) to make specific forms with the intent of healing and ease of movement and learning. Dr. Lam has arthritis and used that as his inspiration.



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- All these variations are not untypical for Tai Chi, Tai Chi has evolved ever since its creation.
- Tai Chi has a curious beginning where Zheng Sanfeng supposedly lived for 300 years before teaching Wang Zongyue.
- Wang Zongyue had two students, Chen Wangting and Jiang Fa in the 1500s.
- From there the family style adaptations were formed and split; Chen and Yang Forms come from Chen Wangting and Wu, Wu (Hao) and Sun Forms come from Jiang Fa or the Zhaobao form the Ching Man Chen form is a modern (1900s) adaptation of the Yu form

Components of Moving Meditation



The Synchronization of:


- Upper body
- Lower body
- Form/steps
- Energy flow/qi
- Breathing

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- The components of moving meditation or Tai Chi are made up of the synchronization of the following.
- Upper Body - arm & hand movement, shoulder & chest position, head movement and posture
- Lower Body - leg movement, waist/hip position, taking steps, and weight distribution
- Forms/Steps - sequence of movements; each form has 1-15+ steps
- Energy flow/ qi - potential & kinetic energy transference and flow throughout the form
- Breathing - Coordinated inhale & exhale which compliments the movements

The Science of Slow

- Consistent movement
- Slow motion
- Light weights/ body weight exercise



Lean sideways




Two grandmasters of the Shaolin Temple - Shi DeRu (Shawn Xiangyang Liu) and Shi DeYang (Shi WanFeng)

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Studies

- Slow Motion Strength Training – Study for Osteoporosis with low weight and slow movement – 1993 & 1999
 - **50% gain in strength after 8-10 weeks** of 1 to 2 times a week
- Asian Nursing Research – 2008
 - **After 2 years** of study, all participants noted an **increase of quality of life** in 6 categories
- American Society of Neurorehabilitation in Hong Kong – 2009
 - **After 12 weeks** of Tai Chi Stroke patients **developed better balance**
- Journal of Rheumatology – 2009
 - **After 3 months**, there was **30% increase in pain relief, physical function and balance**
- Journal of American Geriatrics Society – 2009
 - After practicing, found a **reduction in recurring falls by 70%**




Lean sideways

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More Recent Studies & More

- Tai Chi increase Progenitor CD34+ Cells – 2014
 - Studied Tai Chi, Brisk Walks & No Exercise CD34+ Cell counts (stem cells); found Tai Chi and Brisk Walks to **increase the amount of cells**
- Annals of Internal Medicine -2016
 - Found Tai Chi to be **as effective as physical therapy** for knee osteoarthritis
- Scientific Reports Article – 2019
 - Tai Chi Chuan exercise related change in brain function; using infrared spectroscopy, studied experienced and novices; found **all had significant differences in brain activity and dynamic configuration of connectivity**
- New Zealand Accident Compensation Corporation (government agency)
 - Have studies showing Tai Chi practitioners have **reduced falls and better fitness, strength and balance**
 - **Provide free classes to all citizens over 60 years old.**



Lean sideways

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- Now we can get into the science of moving slow; it comprises of
- Consistent movement - never let the muscle rest, which makes the muscle work harder
- Slow Motion - remove momentum of the exercise and forces the muscle to do all the work
- Light weights/ body weight exercise - reduces the chances of injury and uses gravity as the weight force
- example of a body weight exercise is push ups or chin ups.
- Slow motion and consistent movement fatigue muscles quicker, stimulating muscle growth in a shorter amount of time meaning brief, focused and intentional work outs can yield as much benefit and growth as longer 'traditional' workouts may
- The initial studies I found focus more on proving results of claimed effects
- Life improvement is a difficult thing to quantify but I was surprised how few studies there are on Tai Chi and slow moving exercise
- The first study listed isn't about Tai Chi. Super Slow weight training was developed by Ken Hutchins in 1982
- The Asian Nursing 6 improved life qualities are:
 - Physical Functioning
 - physical Role limitation
 - emotional Role limitation
 - social functioning
 - bodily pain
 - vitality/energy
- The most recent studies I found are more focused on very specific and measurable effects, like the stem cell counts and brain activity
- In New Zealand, their government has implemented free Tai Chi classes for every citizen over 60 years old
- The ACC pays for all accident costs irrespective of fault for all citizens, so they're financially incentivized to have a healthier population
- I'm encouraged by the more recent focus and studies on Tai Chi, and hope that more can be learned about being healthy and strong with less extreme effort



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- World Tai Chi and Chi Gong Day is on April 24th
- Difference between Tai Chi and Qi Gong
 - Interrelated but different
 - Qi Gong is breath and energy movement with a focus on health and meditation
 - Tai Chi incorporates Qi Gong into the forms
- The picture is what I aspire to be. I've still got some work and time to achieve it.