Tai Chi Chuan

A martial art with health benefits for all ages

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T'ai chi ch'uan, T’ai Chi, Taiji, or Tai Chi (English)

• The practice of Tai Chi Chuan began in China in between 300 and 700 years ago, depending on whose theory you prefer, as a martial art for defense training

• Today, numerous forms of Tai Chi are practiced around the world
  – All built on 5 different styles
  – Vary in the speed at which the movements are made
  – The number of movements made
  – How large or small the postures are within the movements
5 Styles of Tai Chi

• **Chen Style** - fast and slow together with some jumping and stomping movements
• **Yang Style** - movements are slow, even, gentle, and large
• **Wu/Hao Style** - slow, smooth, and small and the posture is high
• **Wu Style** - they lean their body to the side but when they lean they think about being straight
• **Sun Style** - combines 3 styles of Tai Chi: Wu, Hsing-I and Bagua
Training in Tai Chi

• Involves five elements
  – Solo hand and weapons routines/forms
  – Breathing, movement and awareness exercises
  – Meditation
  – Response drills
  – Self defense techniques

• Typified by some for its slow movements, there are secondary forms with faster pace

• Some traditional schools also teach partner exercises (pushing hands) and martial applications of the weapons routines
Martial Art

• The ability to use t'ai chi ch'uan as a form of self-defense in combat is the test of a student's understanding of the art
  – The study of appropriate change in response to outside forces
  – The study of yielding and "sticking" to an incoming attack rather than attempting to meet it with opposing force
  – Quite challenging and requires a great deal of training

Master Yang Chengfu utilizing the Single Whip Yang technique

http://en.wikipedia.org/wiki/T'ai_chi_ch'uan#mediaviewer/File:Yang_cheng_fu_single_whip_application_2_75.jpg
Meditation

• Chinese Culture incorporated into Tai Chi
• Tai Chi (one thing) emanates from wuji (ultimate nothingness)
  – Tai Chi is the origin of dynamic and static states and separates into two - yin and yang
  – When there is movement, yin and yang separate
  – When there is no movement, they combine and become one
Meditation

• The focus and calmness cultivated by the meditative aspect of t'ai chi ch'uan is seen as necessary in maintaining optimum health (in the sense of relieving stress and maintaining homeostasis)

• Seek quiescence within movement (one of 10 essentials)
  – when you practice the form, the slower the better
    When you do it slowly your breath becomes deep and long, the chi sinks to the cinnabar field
  – If the student tries carefully he may be able to comprehend the meaning behind these words.
Meditation

• Understanding of jing (essence), chi (qi) (vital energy, and shen (spirit)
  – Accumulate Shen to promote Chi ...
  Accumulate Chi to promote Jing ...
  Refine Jing until it becomes Chi ...
  Refine Chi into Shen ...
  Refine Shen to emptiness –
  – This is the way to strengthen, support and increase the Jing, Chi and Shen of the body
Tai chi outdoors at Beijing’s Temple of Heaven

http://en.wikipedia.org/wiki/T'ai_ch'i_ch'uan#mediaviewer/File:Tai_Chi1.jpg
Health

• **General wellness** [http://www.yangfamilytaichi.com/about/benefits/](http://www.yangfamilytaichi.com/about/benefits/)
  – A holistic approach to wellness (mind, body, spirit)
  – Concentrates on relieving the physical effects of stress on the body and mind
  – Favorable effects on balance control, flexibility, and cardiovascular fitness

  – Like other complementary and alternative practices that bring mind and body together, tai chi can help reduce stress
  – The focus on movement and breathing creates a state of relaxation and calm
  – Stress, anxiety and tension should melt away as you focus on the present
  – The effects may last well after you stop your tai chi session
Health

  
  – Despite its slow and gentle pace, Tai Chi burns around 280 calories per hour
  
  – WebMD: “Because tai chi is low impact, experts say, it’s a good choice for people carrying extra weight, who often have knee and hip limitations.”
  
  – Tai chi may be gentle enough to get you moving

  – for more information on Tai Chi and weight loss:  
Health

  – With its gentle graceful pace and low impact movements, tai chi can be learned and practiced by virtually anyone.
  – According to Mayo Clinic: “you can practice tai chi regardless of your age or physical ability — tai chi emphasizes technique over strength
  – In fact, because tai chi is low impact, it may be especially suitable if you’re an older adult who otherwise may not exercise.”

• Freedom
  – Tai Chi can be practiced pretty much anytime anywhere
  – It takes as little as 15-20 minutes without any equipment
  – It can be performed in the conference room during work break or even at the airport waiting for your flight
Current Literature

• Tai Chi Chuan in Medicine and Health Promotion
  – Ching Lan, Ssu-Yuan Chen, Jin-Shin Lai, Alice May-Kuen Wong
  – Evidence-Based Complementary and Alternative Medicine; 2013:ID 502131, 17 pages

• Review article examining research on health benefits: improvement in aerobic capacity, muscular strength, balance, health-related quality of life, psychological well-being

• Tai Chi is safe and effective for patients with neuological diseases (Parkinson’s, TBI, MS, stroke), rheumatological disease (RA, fibromyalgia), orthopeide diseases (OA, osteoporosis, low-back pain), chronic obstructive pulmonary diseases, and other conditions

• Participants in Tai Chi experienced
  – RA: improved physical condition, confidence in moving, balance, and less pain during exercise, and in daily life
  – Fibromyalgia: more flexibility, less pain severity, better sleep, static balance and dynamic balance
  – Multiple studies reviewed on the other conditions
Current Literature

• Evaluation of the Sustaining Effects of Tai Chi Qigong in the Sixth Month in Promoting Psychosocial Health in COPD Patients: A Single-Blind, Randomized Controlled Trial
  – Aileen W. K. Chan,1 Albert Lee,2 Diana T. F. Lee,1 Janet W. H. Sit,1 and S. Y. Chair1

• Research article
  – To evaluate the sustaining effects of Tai Chi Qigong (TCQ) in improving the psychosocial health in chronic obstructive pulmonary disease (COPD) patients in the sixth month
  – The TCQ group completed a three-month TCQ program, the exercise group practiced breathing and walking exercise, and the control group received usual care.
  – Results. Significant group-by-time interactions in quality of life (QOL) using St. George’s respiratory questionnaire (P = 0.002) and the perceived social support from friends using multidimensional scale of perceived social support (P = 0.04) were noted. Improvements were observed in the TCQ group only.
  – Conclusions. TCQ has sustaining effects in improving psychosocial health; it is also a useful and appropriate exercise for COPD patients.
Current Literature

- Green tea polyphenols supplementation and Tai Chi exercise for postmenopausal osteopenic women: safety and quality of life report
  - Chwan-Li Shen, Ming-Chien Chyu, Barbara C Pence, James K Yeh, Yan Zhang, Carol K Felton, Susan Doctolero, Jia-Sheng Wang
  - BMC Complementary and Alternative Medicine 2010, 10:76
- This study was to evaluate the safety of 24 weeks of GTP supplementation combined with TC exercise in postmenopausal osteopenic women, along with effects on quality of life in this population.
- Results: 150 subjects completed the study (12% attrition rate).
  - Neither GTP supplementation nor TC exercise affected liver or kidney function parameters throughout the study
  - No adverse event due to study treatment was reported by the participants
  - TC exercise significantly improved the scores for role-emotional and mental health of subjects while no effect on quality of life was observed due to GTP supplementation.
- TC exercise for 24 weeks (3 hr/wk) significantly improved quality of life in terms of role-emotional and mental health in these subjects
- Trial Registration: ClinicalTrials.gov NCT00625391
Current Literature

- Mitigation of Oxidative Damage by Green Tea Polyphenols and Tai Chi Exercise in Postmenopausal Women with Osteopenia
  - Guoqing Qian, Kathy Xue, Lili Tang, Franklin Wang, Xiao Song, Ming-Chien Chyu, Barbara C. Pence, Chwan-Li Shen, Jia-Sheng Wang.

- Results:
  - The elevated concentrations of serum and urinary GTP components demonstrated a good adherence for the trial. A significant reduction of urinary 8-OHdG concentrations was found in all three treated groups during 3-month (P<0.001) and 6-month (P<0.001) intervention, as compared to the placebo group.
  - The significant time- and dose-effects on mitigation of the oxidative damage biomarker were also found for GTP, TC, and GTP+TC intervened groups.

- Conclusion:
  - Our study demonstrated that GTP and TC interventions were effective strategies of reducing the levels of oxidative stress, a putative mechanism for osteoporosis in postmenopausal women, and more importantly, working in an additive manner, which holds the potential as alternative tools to improve bone health in this population.

- Trial Registration: ClinicalTrials.gov NCT00625391
3 articles selected out of 58 for 2014
572 going back to 1979

• Blood pressure, salivary cortisol, and inflammatory cytokine outcomes in senior female cancer survivors enrolled in a tai chi chih randomized controlled trial.
  2014 Campo et al J Cancer Surviv
  – RESULTS: Controlling for baseline values, the TCC group had significantly lower systolic blood pressure (SBP, $p = 0.002$) and cortisol area-under-curve (AUC, $p = 0.02$) at post-intervention than the HEC group. There was no intervention effect on inflammatory cytokines ($p's > 0.05$)

• Tai Chi Exercise can Improve the Obstacle Negotiating Ability of People with Parkinson's Disease: A Preliminary Study. 2014 Kim et al. J Phys Ther Sci
  – Comparison of the results between pre- and post-intervention showed a statistically significant improvement in anteroposterior and mediolateral displacement of center of pressure [not controlled]

  – The tai chi group exhibited greater improvement in SPPB scores (baseline 8.1 ± 2.9, follow-up 9.0 ± 2.6) than controls (baseline 8.2 ± 2.6, follow-up 8.2 ± 2.6) ($P = .005$). Tai chi also increased normal and dual-task walking speed ($P < .001$) yet did not affect BBS ($P = .02$) or TUG ($P = .02$) after accounting for multiple comparisons. The dual-task cost (percentage change) to walking speed was unaffected. After the crossover tai chi intervention, the control group improved performance in the SPPB, BBS, and TUG, and increased walking speed under normal and dual-task conditions ($P = .008$).
Tai chi indoors at TTUHSC Rec Center
Yang Form

• Two forms
  – Hand form (solo practice) – long form (103), short form (24)
  – Weapons form (sword, saber, staff and spear)
• The 13 postures
  – 8 energies
    • ward off, roll back, press
    • push, pull
    • elbow strike, shoulder strike
    • split
  – 5 steps
    • forward, back
    • look left, gaze right, and center
The 10 Essentials

1. Empty, lively, pushing up and energetic
   - Head upright and straight, spirit infused into its apex – do not use strength
   - Intention to raise your spirit

2. Hold in the chest, pull up the back
   - Sink your chi
   - Obtain strength from your spine

3. Relax the waist – the commander of the body
   - Stabilizes the lower body

4. Separate empty and full
   - Recognize where your weight is centered

5. Sink the shoulders and droop the elbows
   - Failure to do so causes loss of body strength
The 10 Essentials

6. Use intent rather than force - let the entire body relax and extend
   – “Only by being extremely soft are you able to achieve extreme hardness." Somebody who is really adept at taijiquan has arms which seem like silk wrapped around iron, immensely heavy

7. Synchronize upper and lower body
   – When hands move, the waist moves and legs move, and the gaze moves along with them

8. Match up inner and outer
   – Spirit and body working together as a seamless whole

9. (Practice) Continuously and without interruption
   – Like the Yangtze or Yellow River, endlessly flowing.

10. Seek quiescence within movement
    – when you practice the form, the slower the better When you do it slowly your breath becomes deep and long, the chi sinks to the cinnabar field
    – If the student tries carefully he may be able to comprehend the meaning behind these words.
The Yang Style Masters

- 1799 Yang Lu Chan
- To Tai Chi Master Yang Chengfu
- To contemporary Yang Jun, 6th Generation descendant Master

Master Yang Chengfu demonstrating Single Whip (public domain photo)

Teaching at a local workshop

http://en.wikipedia.org/wiki/T’ai_ch’i_ch’uan#mediaviewer/File:Master_Yang_Jun_Bend_The_Bow_Shoot_The_Tiger.jpg
Creation of Tai Chi

• Around the Yuan and Ming Dynasty - Chang Sanfeng - about 600-700 years ago lived in Shaolin Temple and went to WuDang Mountain and created Tai Chi. He saw a crane fighting with a snake. The crane was always hard. The snake would yield and follow the crane and did not resist and so he didn't lose his life to the crane. Hard was controlled by soft.