

Title: Clinical Ai Chi as exercise modality in Complete Decongestive Therapy

Presenters: Johan Lambeck PT, Association IATF Switzerland and Anne Bommer, Foundation Clair-Bois, Geneva, Switzerland + Association IATF.

At first: video's of regular Ai Chi in which Mayumi Yano is presenting can be seen at and <https://vimeo.com/72877365>

In the 2016 International Congress on Evidence Based Aquatic Therapy (ICEBAT) in Querétaro, Mexico an adaptation of Clinical Ai Chi was shown, based on important themes in existing literature about Complete Decongestive Therapy (CDT). This was done together with Paula Geigle from Baltimore, USA; one of the authors listed underneath. We composed a **PowerPoint** (as pdf, in which we explained the background of Clinical Ai Chi in the exercise part of CDT).

We added 2 video's in which 2 suggested sequences are proposed. In both video's we show the first 5 kata's. One video shows mainly movements that include expansion of the trunk and shoulder girdle: [https://www.youtube.com/watch?v=t86\\_-dzqjlk&feature=youtu.be](https://www.youtube.com/watch?v=t86_-dzqjlk&feature=youtu.be) the other video focuses on a proximo-distal sequence: <https://www.youtube.com/watch?v=KRiC4Nk4VS8&feature=youtu.be>

The International Society of Lymphology advises to treat lymphedema with Complex Decongestive Therapy (CDT), which consists of manual lymphdrainage, compression therapy, skin care and decongestive exercise therapy.

Hydrostatic pressure therefore is the basis for the rationale to exercise in water, as various publications have stated: transient reduction of edema is described. Given the obstruction of the lymphatic flow, edema reduction can be expected to be related to the venous circulation. This ends when the person comes out of the pool.

During pool time, homeostasis of tissues seems to be normalized and can be the rationale base for exercise. Exercise characteristics progressively change, but start with addressing strength and length at a low training intensity: slow, smooth, controlled, repetitive.

Ai Chi is performed in water and originally aimed at influencing meridians. Meanwhile a connection between meridians and fascia has been established. Influencing fascia can have various goals, one of them is liquid exchange (extracellular matrix – interstitial fluids). Ai Chi fits also in the exercise characteristics of slow, smooth, controlled and repetitive. Previous publications of aquatic therapy in CDT have used intervention tactics that included elements which we also see in Ai Chi.

The webinar will explain various processes that might be used to explain the short-term clinical effects like the immersion effects on fascia extensibility, the low forces of slow movement in water addressing intramuscular fascia, somato-visceral effects of thoracic movement

Clinical Ai Chi is focused at adapting Ai Chi to specific patient needs with a clinical reasoning process that includes all that is needed to justify the intervention.

#### References:

Ambroza C, Richley Geigle P. Aquatic exercise as a management tool for breast-cancer related lymphedema. *Topics in Geriatric Rehabilitation*, 2010;26(2):120-127  
<https://cdn.website.thryv.com/f6231140dee0466dbcd61b6138c7f98c/files/uploaded/5.managemetn.pdf>

Deacon R, Noronha de M, Shanley L, Young K. Does the speed of aquatic therapy exercise alter arm volume in women with breast cancer related lymphoedema? A cross-over randomized controlled trial. *Brazilian Journal of Physical Therapy*, 2019;23(2):140-147  
[https://www.researchgate.net/publication/329022037\\_Does\\_the\\_speed\\_of\\_aquatic\\_therapy\\_exercise\\_alter\\_arm\\_volume\\_in\\_women\\_with\\_breast\\_cancer\\_related\\_lymphoedema\\_A\\_cross-over\\_randomized\\_controlled\\_trial](https://www.researchgate.net/publication/329022037_Does_the_speed_of_aquatic_therapy_exercise_alter_arm_volume_in_women_with_breast_cancer_related_lymphoedema_A_cross-over_randomized_controlled_trial)

Campbell KL, Winters-Stone KM, Wiskemann J et al. Exercise Guidelines for Cancer Survivors: Consensus Statement from International Multidisciplinary Roundtable *Med Sci Sports Exerc*. 2019 Nov;51(11):2375-2390. <https://doi.org/10.1249/MSS.0000000000002116>.

Lee C, Huang Y, Wang C et al. Possible Applications for Fascial Anatomy and Fasciaology in Traditional Chinese Medicine. *J Acupuncture and Meridian Studies*, 2010;3(2):125-132  
[https://doi.org/10.1016/S2005-2901\(10\)60023-4](https://doi.org/10.1016/S2005-2901(10)60023-4)

Withers RT, Hamdorf PH. Effect of immersion on lung capacities and volumes: implications for the densiometric estimation of relative body fat. *J of Sports Sciences* 1989;7:21-30

Löllgen H, Nieding v G, Horres R. Respiratory adjustment during head out water immersion. *Int J Sports Medicine* 1980;1:25-29

Yamashima Y, Yokoyama H, Naghavi N et al. Forced expiration during the deeper water immersion causes the greater inspiratory muscle fatigue in healthy young men. *J Phys Ther Sci* 2016;28:412-418

\*

The relation between the triple warmer and the lymphatic system / interstitium is explained in the book by Matsumoto K & Birch S. [https://kupdf.net/download/hara-diagnosis-reflection-in-the-sea-2\\_5af4a412e2b6f57508860b87\\_pdf](https://kupdf.net/download/hara-diagnosis-reflection-in-the-sea-2_5af4a412e2b6f57508860b87_pdf)

