

2012

Epidemiology Seminar Series

“ Tai Chi, medication in motion:
coordinated changes in blood flow
and bioenergy markers”

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Abstract: Harvard Health Publications recently called the centuries old mind-body practice of Tai Chi “Medication in Motion” because of the mounting volume of literature on laboratory research and clinical trials showing that it can not only increase body flexibility, strength and balance, but also relief stress, improve mental focus, boost immune response, lower cholesterol, enhance mood, elevate blood flow, raise body energy and strength, and prevent or relieve many disorders such as insomnia, obesity, hypertension, arthritis, and diabetes. Our laboratory is focused on some of the underlying mechanisms behind its many beneficial effects. We have found that the simultaneous regulation of mind-body-breath in Tai Chi exercises can induce a state of focused relaxation based on EEG and heart rate variability analysis, enhance blood flow monitored by laser Doppler flowmetry, and body energy measured as heat by infrared thermography, light by single photon counting, and electricity by pre-polarization conductance determined at acupuncture points. The bioelectrical changes are particularly interesting because they might be related to the reported effects of D.C. electric field on wound healing in a cell culture model, and to the demonstrated efficacy of FDA-approved electrotherapeutic devices for treatment of bone fracture and soft tissue damage.

Friday, 12:30 – 2:00 pm

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(w/ live telecast to UCI-MC Medical Library)

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Epidemiology Doctoral
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