

June 9, 2011

## Tai chi boosts function for those with 'chemo brain,' study finds

By ADRIANA BARTON  
From Friday's Globe and Mail

### *Practising Chinese martial art twice a week can improve physical and psychological well-being after chemotherapy*

For cancer survivors, "chemo brain" seems like an unfair blow. Long after radiation and chemotherapy treatments are over, many patients suffer from memory lapses, poor concentration and a general feeling of being "spaced out."

The fuzzy-headedness may persist for years, researchers have found. But there's a chance tai chi can help.

In a pilot study, women who previously had chemotherapy and took a 60-minute tai chi class twice a week had sharper thinking at the end of 10 weeks of training in the Chinese martial art.

Before and after the study period, researchers assessed participants' physical and psychological well-being and measured their cognitive skills in areas such as attention and multitasking.

"In terms of their thinking, there were improvements over time in pretty much all of our tests," says Stephanie Reid-Arndt, a psychologist at the University of Missouri and lead author of the study.

In addition, participants had improved balance and reported lower stress levels, Dr. Reid-Arndt says.

The study, published online in the journal *Complementary Therapies in Clinical Practice*, is the first to measure cognitive abilities in former chemotherapy patients in relation to a specific exercise program.

Dr. Reid-Arndt notes the study is small, involving 23 women with mild to moderate cognitive impairment a year or more after chemotherapy treatments.

According to the Canadian Cancer Society, about 177,800 Canadians will be diagnosed with cancer this year, not including 74,100 cases of non-melanoma skin cancer.

Scientists don't know why some people develop thinking problems after chemotherapy. It is unclear whether having chemotherapy is a direct cause of cognitive impairment or whether changes in hormones or the vascular system during treatment are involved, Dr. Reid-Arndt says.

Nevertheless, "we think about a third of people experience these [cognitive] difficulties after chemotherapy."

The Canadian Cancer Society recommends that patients who notice changes in memory and concentration use coping skills such as keeping tracking of things by making lists and scheduling activities that require focused attention at times when they're well rested.

Behavioural changes may help, Dr. Reid-Arndt says. But she adds that tai chi combines exercise, learning and mindfulness - all of which have been shown in previous research to improve cognitive abilities.

Tai chi students learn intricate routines and mind-body skills that emphasize breathing awareness, active relaxation and slow movements, which are well suited for cancer survivors who have physical impairments.

Similar benefits might be found by studying activities such as yoga for patients who have had chemotherapy, Dr. Reid-Arndt says.

Meanwhile, she adds, a larger study is needed to establish that tai chi really can help clear up chemo fog.

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