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“I PROCESSI COGNITIVI NELLE ARTI MARZIALI”

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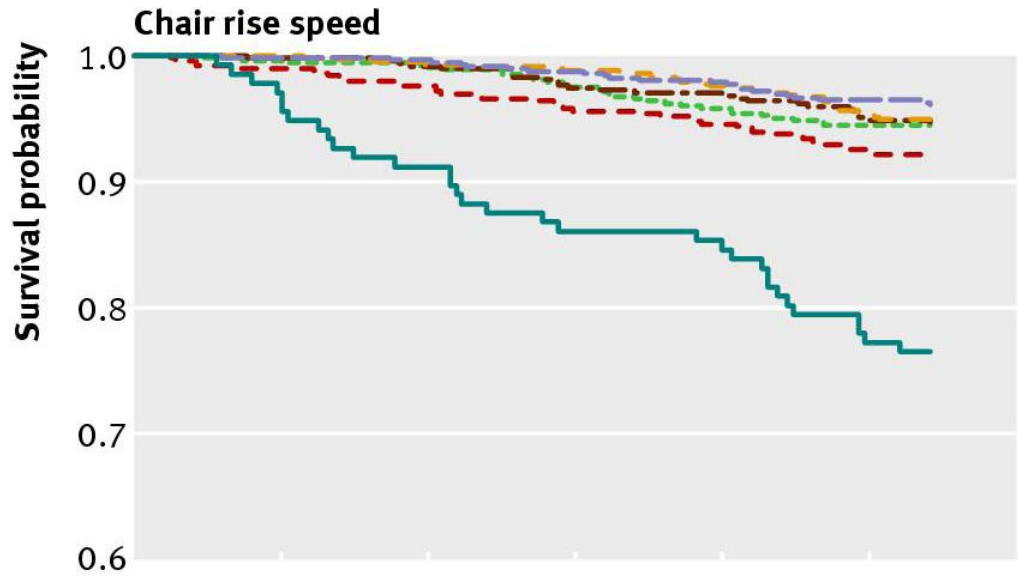
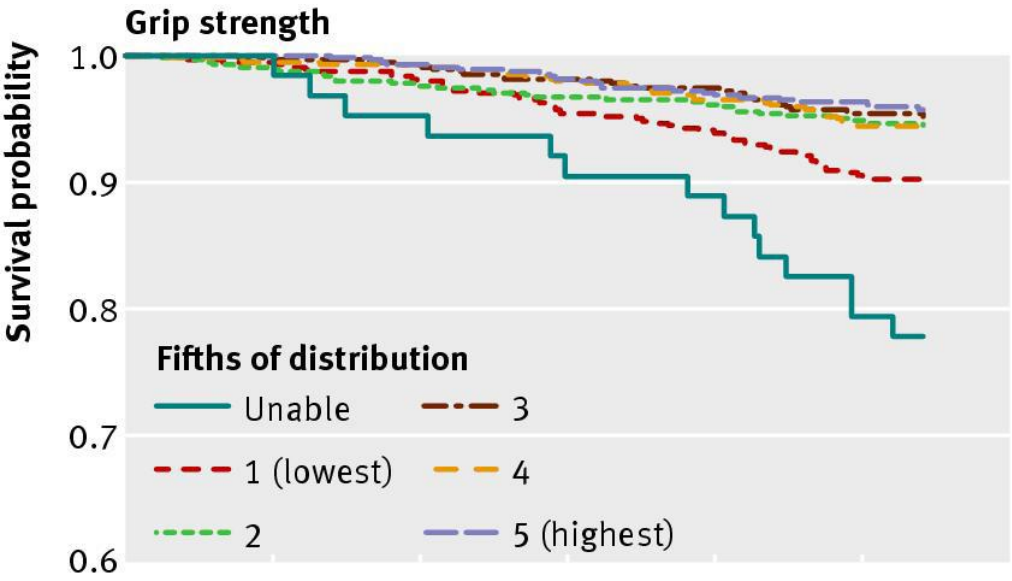
sabato 21 APRILE 2018

La prevenzione per le malattie degenerative della mente

Ernesto Palummeri, geriatra, Coordinatore Rete Demenze Regione Liguria



Rachel Cooper et al, BMJ, 2014

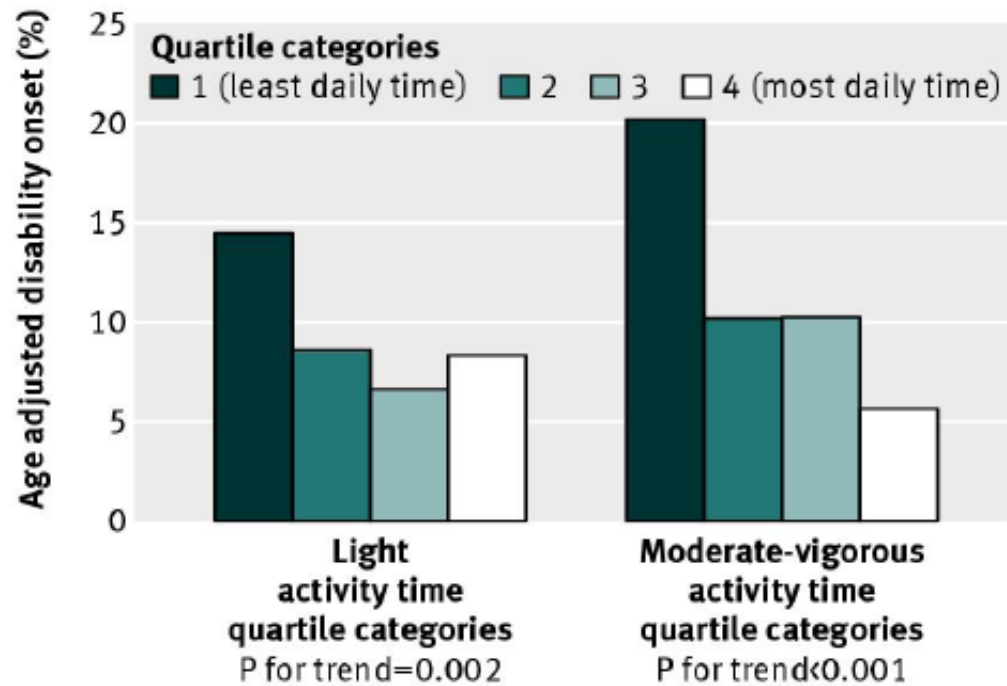


No.= 2766 (M=1355; F=1411)

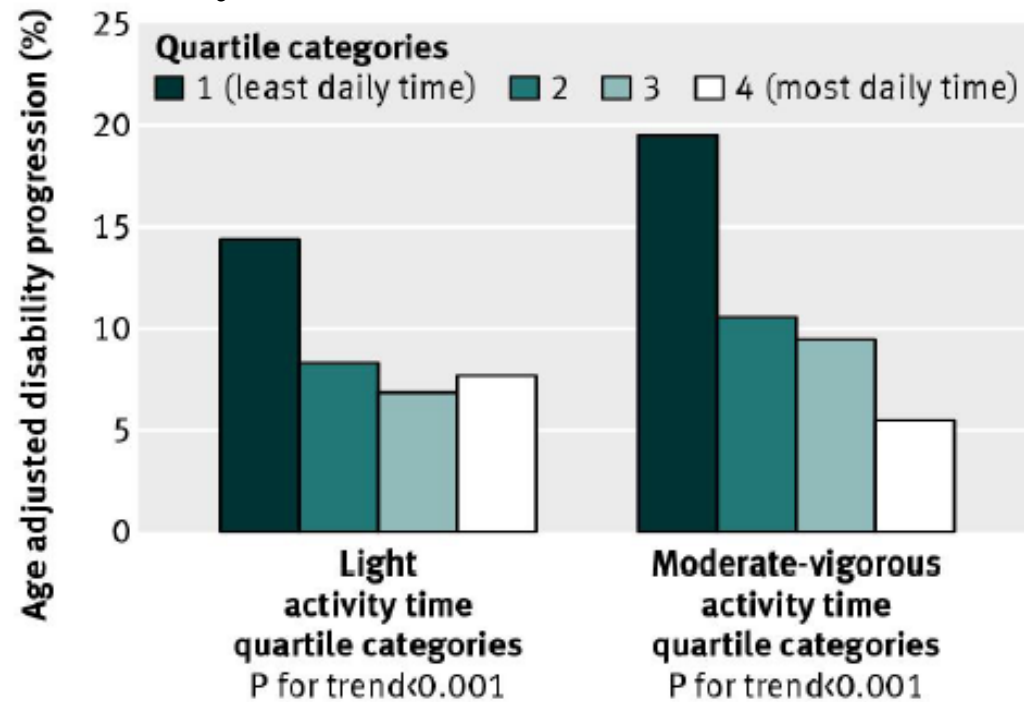
Relation of physical activity time to incident disability in community dwelling adults with or at risk of knee arthritis: prospective cohort study

Dorothy D Dunlop, et al, BMJ, 2014

Age adjusted percentage of incident disability according to quartile categories of light physical activity and moderate-vigorous physical activity (n=1680)



Age adjusted percentage of disability progression according to quartile categories of light physical activity and moderate-vigorous physical activity (n=1814)



Attività leggera 199<cont.accel/min<2020

Attività moderata/vigorosa >=2020 cont.accel.min

Association of “Weekend Warrior” and Other Leisure Time Physical Activity Patterns With Risks for All-Cause, Cardiovascular Disease, and Cancer Mortality

Gary O’Donovan, PhD; I-Min Lee, ScD; Mark Hamer, PhD; Emmanuel Stamatakis, PhD

Table 2. Cox Proportional Hazards Regression for Associations Between Physical Activity Pattern and Mortality^a

Physical Activity Pattern ^b	No. of Events	Mortality, HR (95% CI)		
		All-Cause	CVD	Cancer
No. of events	NA	8802	2780	2526
Adjusted for age and sex				
Inactive	39 947	1 [Reference]	1 [Reference]	1 [Reference]
Insufficiently active	14 224	0.61 (0.57-0.65)	0.56 (0.49-0.64)	0.77 (0.68-0.86)
Weekend warrior	2341	0.60 (0.51-0.70)	0.53 (0.39-0.72)	0.70 (0.54-0.91)
Regularly active	7079	0.56 (0.50-0.62)	0.51 (0.41-0.63)	0.69 (0.57-0.82)
Fully adjusted ^c				
Inactive	39 947	1 [Reference]	1 [Reference]	1 [Reference]
Insufficiently active	14 224	0.69 (0.65-0.74)	0.63 (0.55-0.72)	0.86 (0.77-0.96)
Weekend warrior	2341	0.70 (0.60-0.82)	0.60 (0.45-0.82)	0.82 (0.63-1.06)
Regularly active	7079	0.65 (0.58-0.73)	0.59 (0.48-0.73)	0.79 (0.66-0.94)

EDITORIALS

Inactivity, disability, and death are all interlinked

If you must watch a lot of television, move during commercial breaks—every little helps

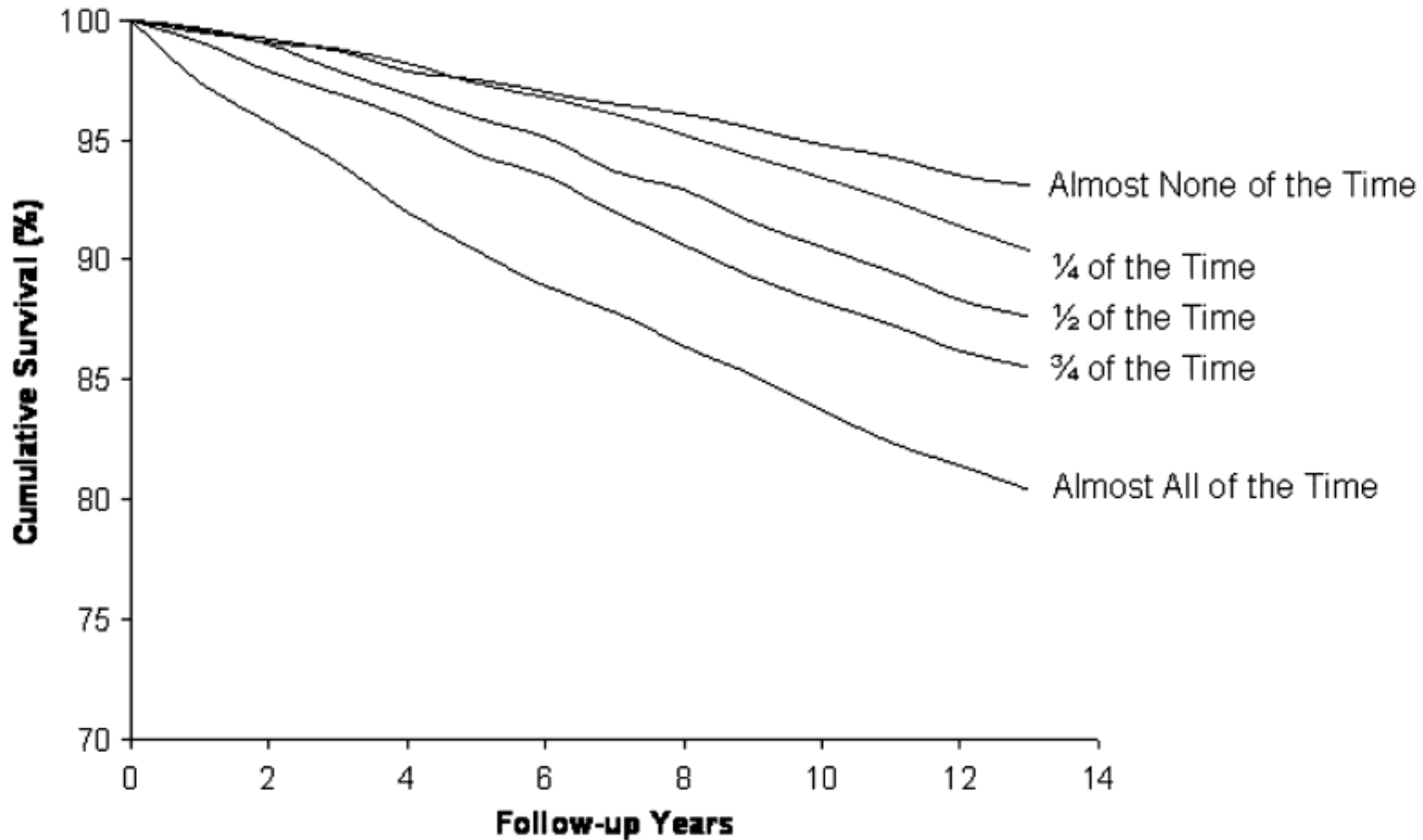
Elizabeth Badley *professor*

Dalla Lana School of Public Health, University of Toronto, 155 College Street, Toronto, ON, Canada, M5S 1A8

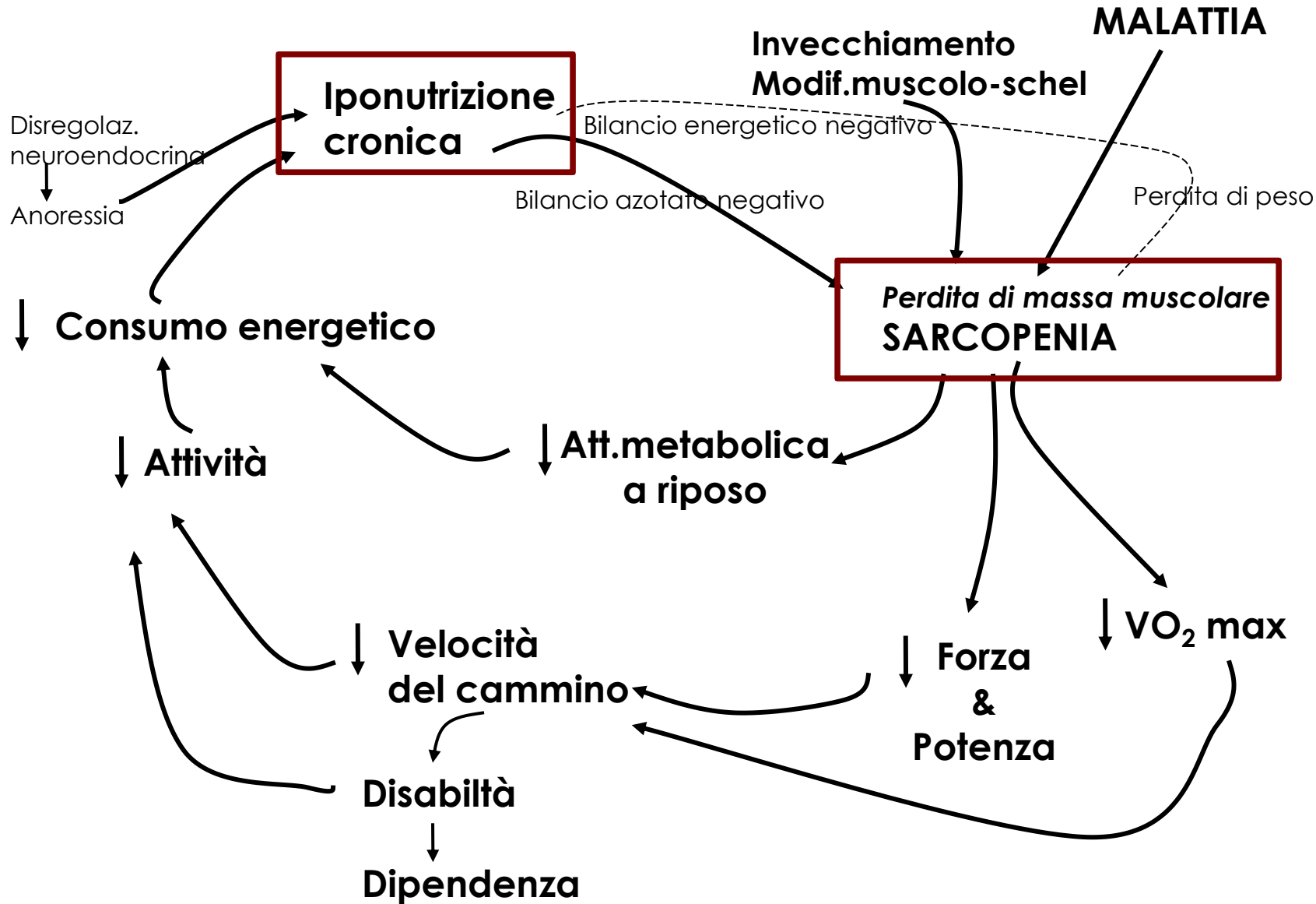
Sitting Time and Mortality from All Causes, Cardiovascular Disease, and Cancer

PETER T. KATZMARZYK¹, TIMOTHY S. CHURCH¹, CORA L. CRAIG², and CLAUDE BOUCHARD¹

¹*Pennington Biomedical Research Center, Baton Rouge, LA; and* ²*Canadian Fitness and Lifestyle Research Institute, Ottawa, Ontario, CANADA*



Il ciclo della fragilità fisica

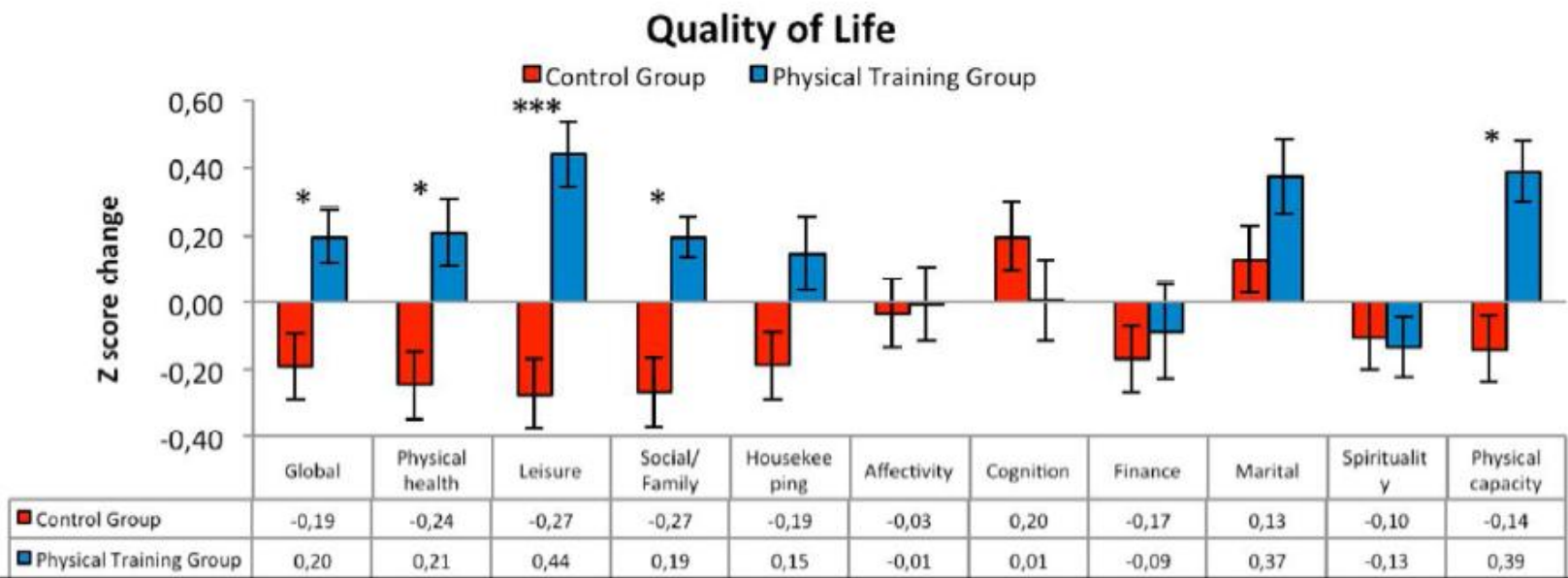
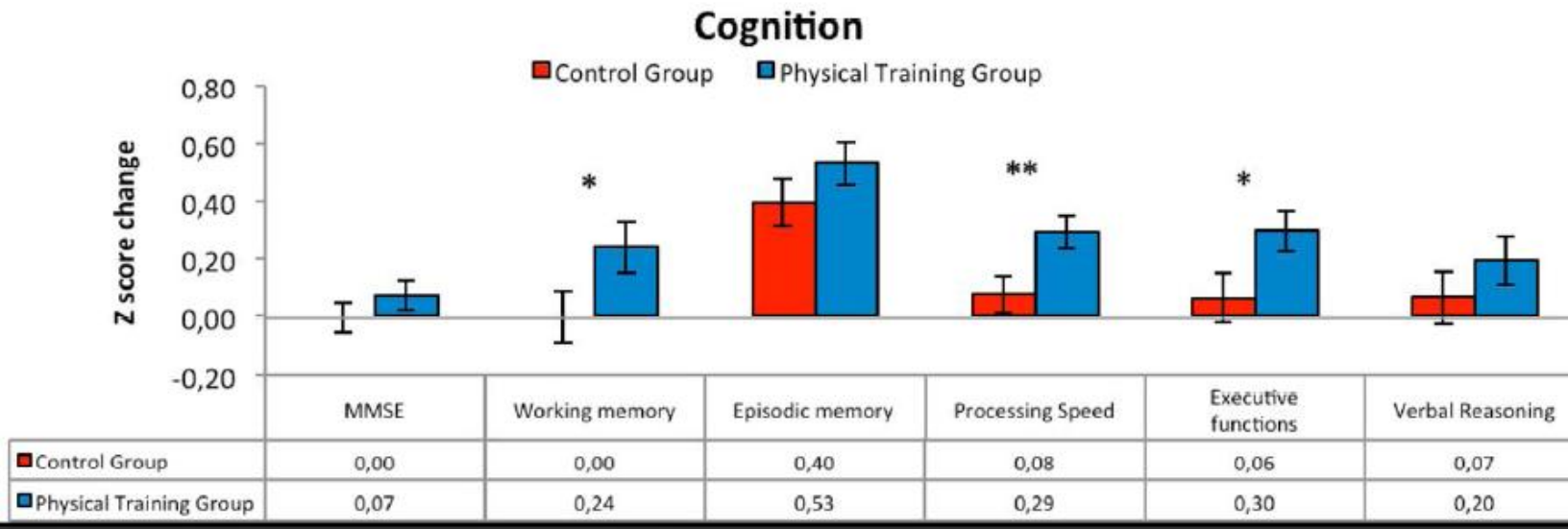


L.Fried & J.Walston, 1998

Benefits of Physical Exercise Training on Cognition and Quality of Life in Frail Older Adults

Francis Langlois,^{1,2} Thien Tuong Minh Vu,^{2,3} Kathleen Chassé,² Gilles Dupuis,^{1,4} Marie-Jeanne Kergoat,² and Louis Bherer^{1,2}

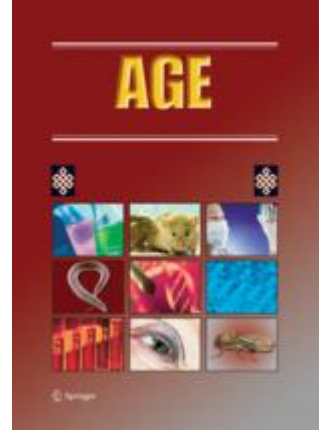
The Journals of Gerontology: Series B, Volume 68, Issue 3, 1 May 2013, Pages 400–404



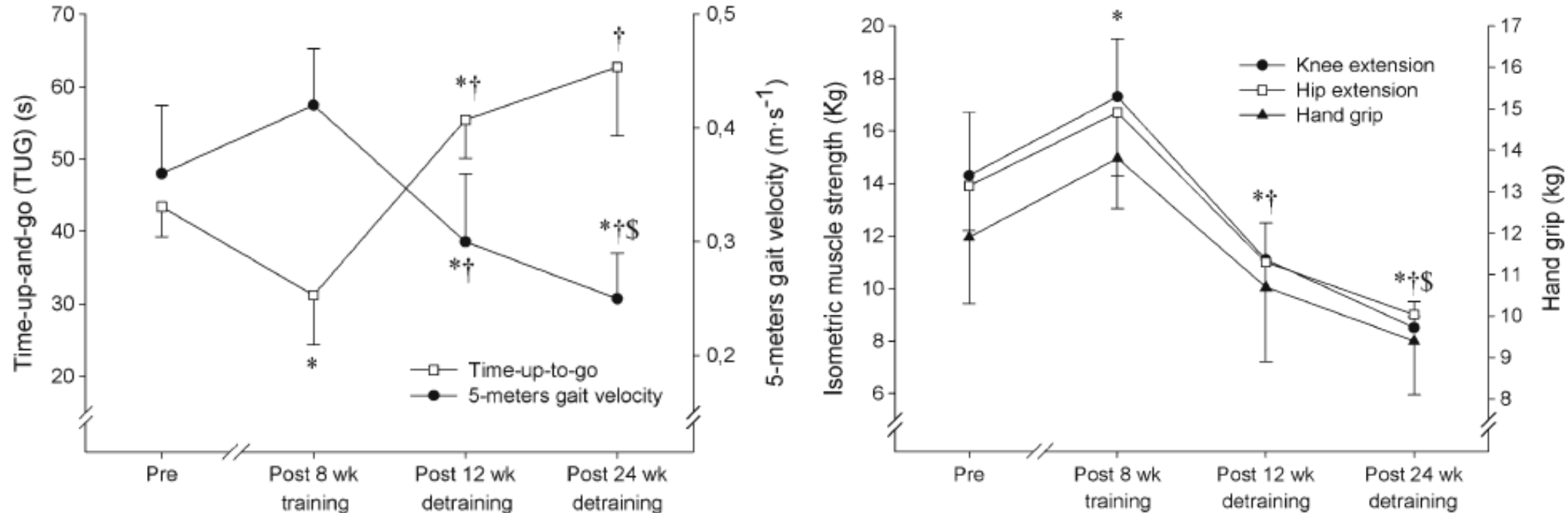
The physical exercise-training program consisted of 2 weeks of 1-h exercise session 3 days a week. Training was conducted in subgroups of 3 to 5 participants to ensure adequate supervision. Each session included 10 min of warm up exercises (stretching and balancing), 10–30 min of aerobic workout, and 10 min of strength training, followed by 10 min of cool down exercises. The intensity and duration of the aerobic exercises were increased individually, using the modified Borg Rating of Perceived Exertion scale (0–10) to reach moderate to hard intensity

Positive effects of resistance training in frail elderly patients with dementia after long-term physical restraint

Eduardo L. Cadore • Ana B. Bays Moneo • Marta Martinez Mensat •
Andrea Rozas Muñoz • Alvaro Casas-Herrero •
Leocadio Rodriguez-Mañas • Mikel Izquierdo



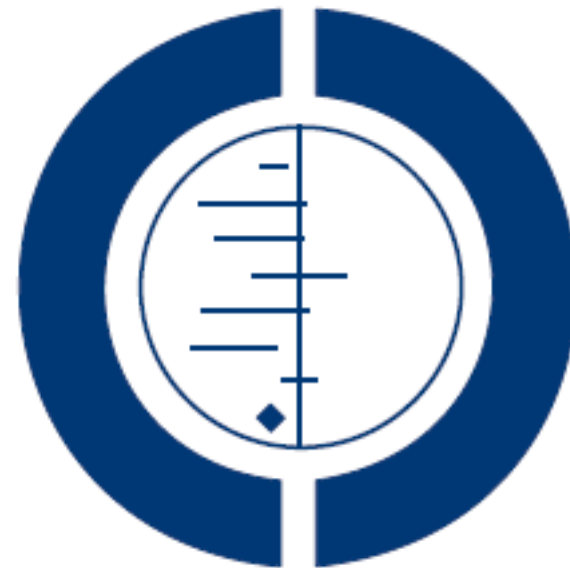
Multicomponent exercise program: 4 weeks of walking, balance and cognitive exercises, followed by 4 weeks of resistance exercise performed twice weekly



A significant reduction was also observed in the incidence of falls ($P < 0.01$). No changes were observed in the intervention group in the BI score, MMSE, dual-task performance.

**Physical activity and enhanced fitness to improve cognitive function in older people without known cognitive impairment
(Review)**

Angevaren M, Aufdemkampe G, Verhaar HJJ, Aleman A, Vanhees L

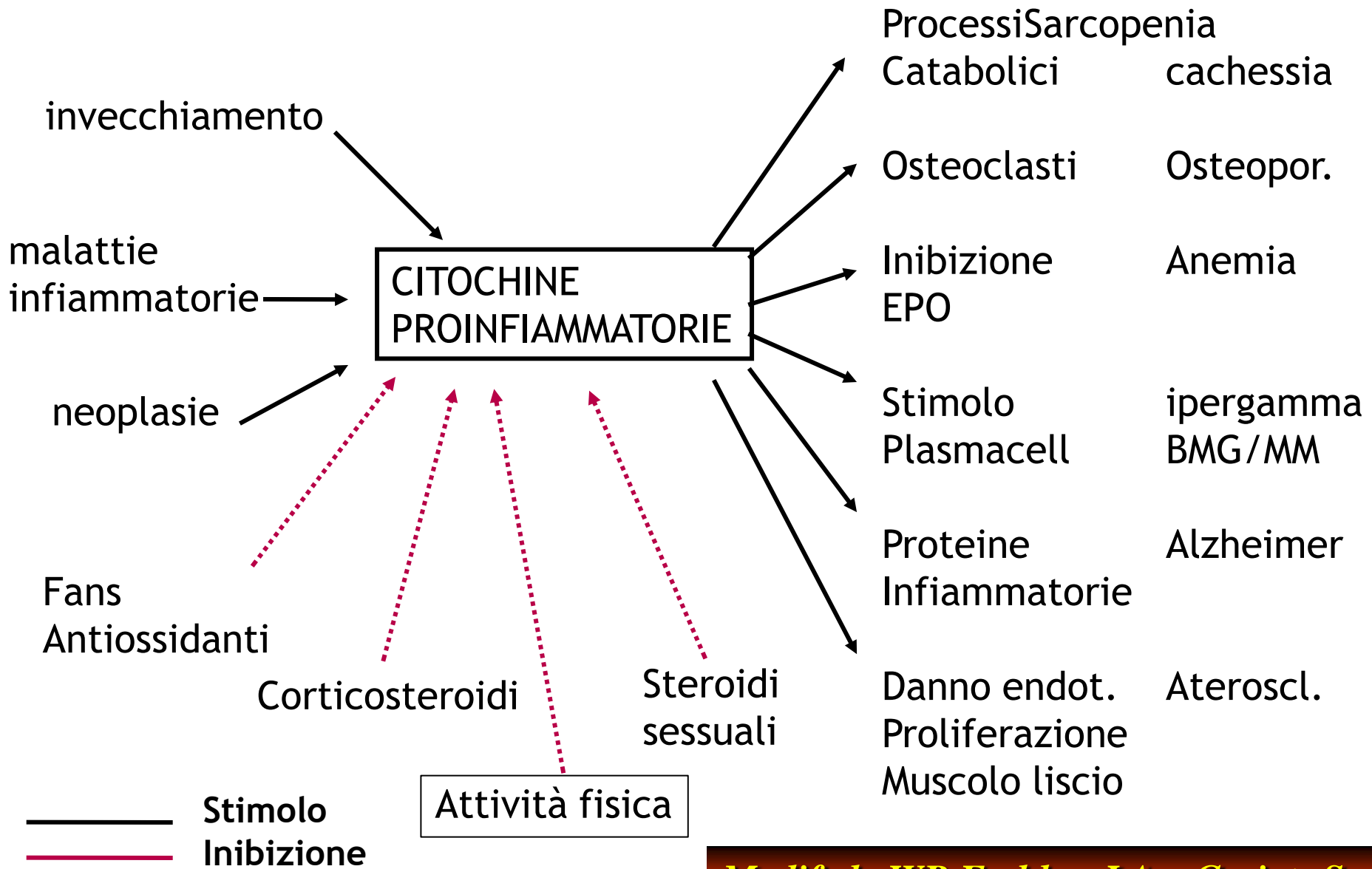


**THE COCHRANE
COLLABORATION®**

Overall appraisal of existing strategies for the prevention of cognitive decline

Intervention	Strength of evidence
Physical activity	+++
Treatment of vascular risk factors	+++
Dietary modification	++
Treatment of MDD	++
Cognitive retraining	++
Stress reduction	++
Immunomodulators	+
Brain stimulation	+
+++ , moderate; ++ , low; + , very low; MDD, major depressive disorder.	

Citochine proinfiammatorie e fragilità



Modif. da WB Ershler, J Am Geriatr Soc, 2003

Exercise: An Active Route to Healthy Aging

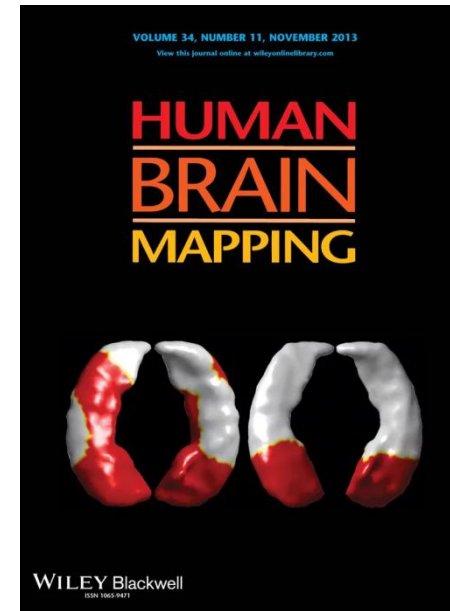
Aerobic Exercise Training Increases Brain Volume in Aging Humans

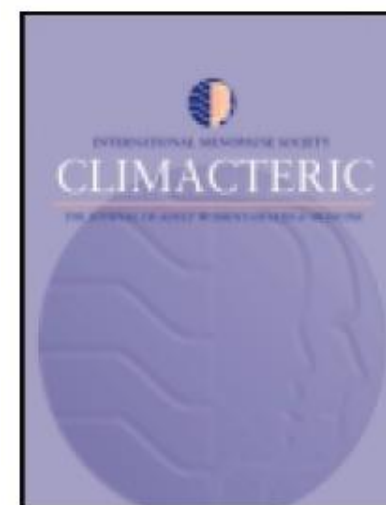
Stanley J. Colcombe,¹ Kirk I. Erickson,¹ Paige E. Scalf,¹ Jenny S. Kim,¹ Ruchika Prakash,¹
Edward McAuley,² Steriani Elavsky,² David X. Marquez,² Liang Hu,² and Arthur F. Kramer¹

¹Beckman Institute & Department of Psychology and ²Department of Kinesiology,
University of Illinois, Urbana.

The Influence of Aerobic Fitness on Cerebral White Matter Integrity and Cognitive Function in Older Adults: Results of a One-Year Exercise Intervention

Michelle W. Voss,^{1*} Susie Heo,^{2,3} Ruchika S. Prakash,⁴ Kirk I. Erickson,⁵
Heloisa Alves,^{2,3} Laura Chaddock,^{2,3} Amanda N. Szabo,⁶ Emily L. Mailey,⁶
Thomas R. Wójcicki,⁶ Siobhan M. White,⁶ Neha Gothe,⁶
Edward McAuley,⁶ Bradley P. Sutton,^{3,7} and Arthur F. Kramer^{2,3}





Individually modifiable risk factors to ameliorate cognitive aging: a systematic review and meta-analysis

P. Lebert, P. Villaseca^{*}, E. Hogervorst[†], P. M. Maki[‡] and V. W. Henderson^{**}

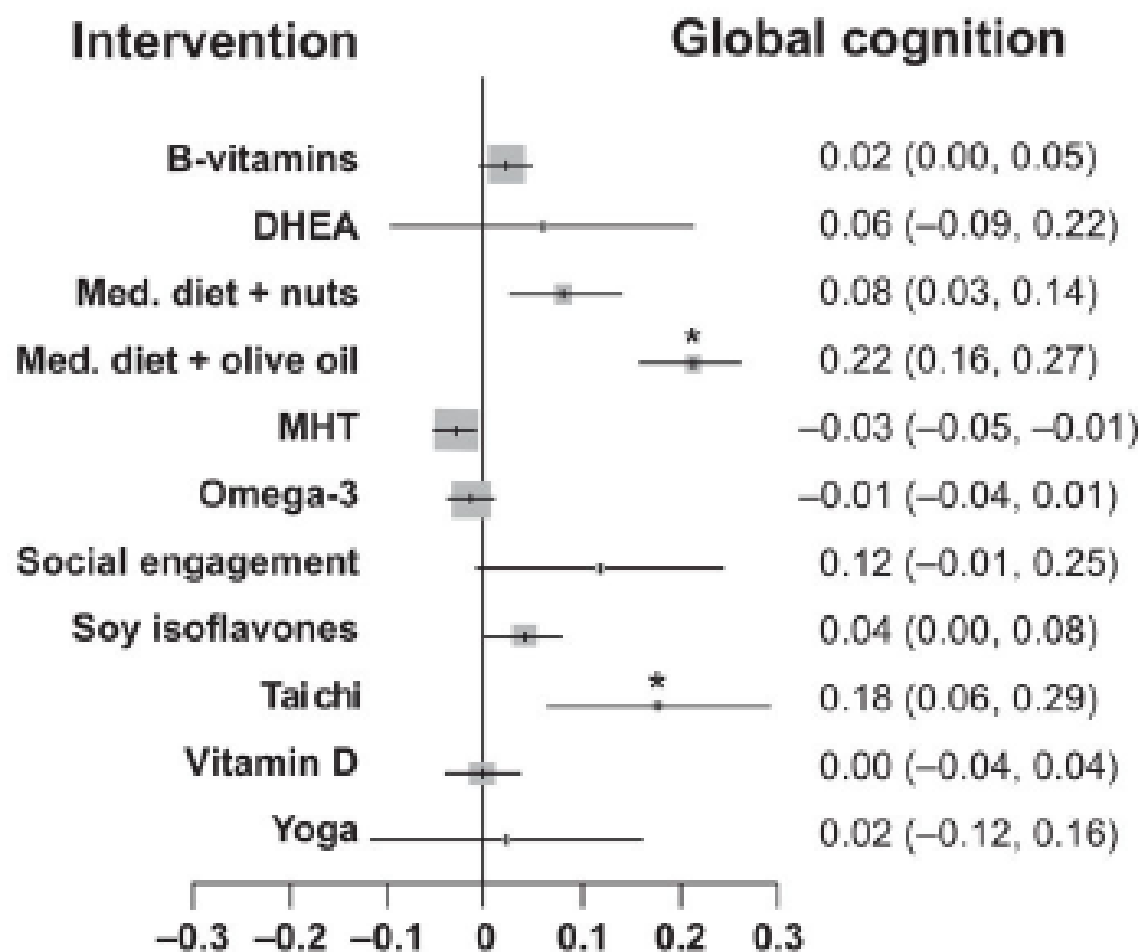
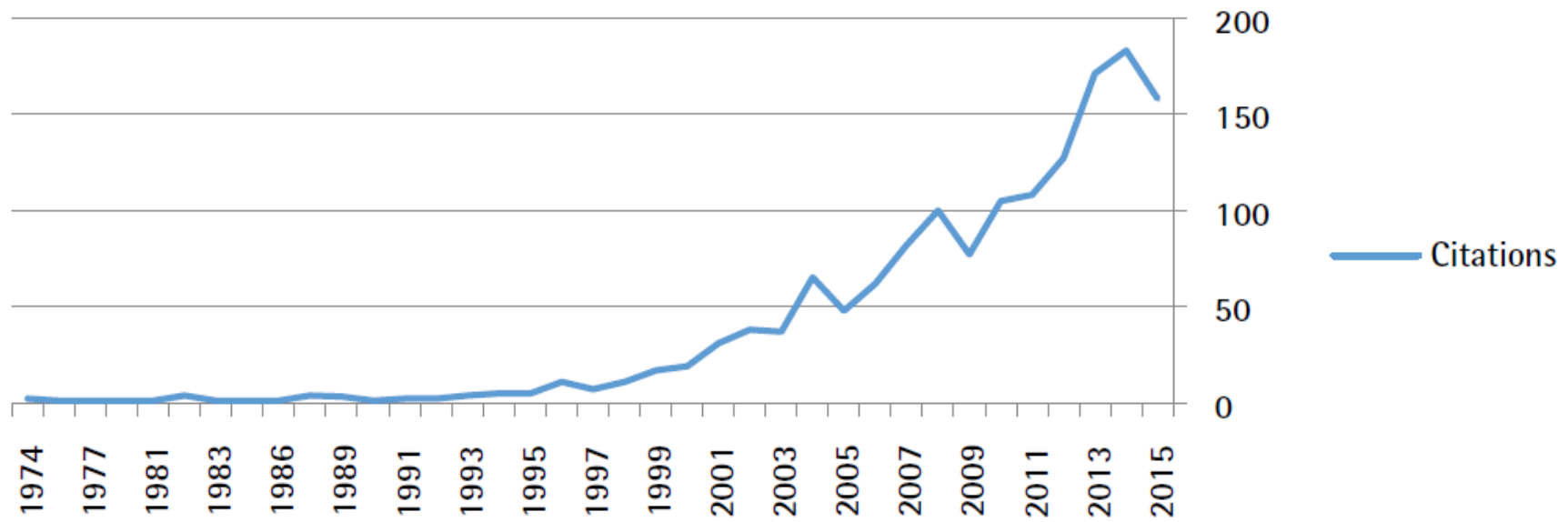


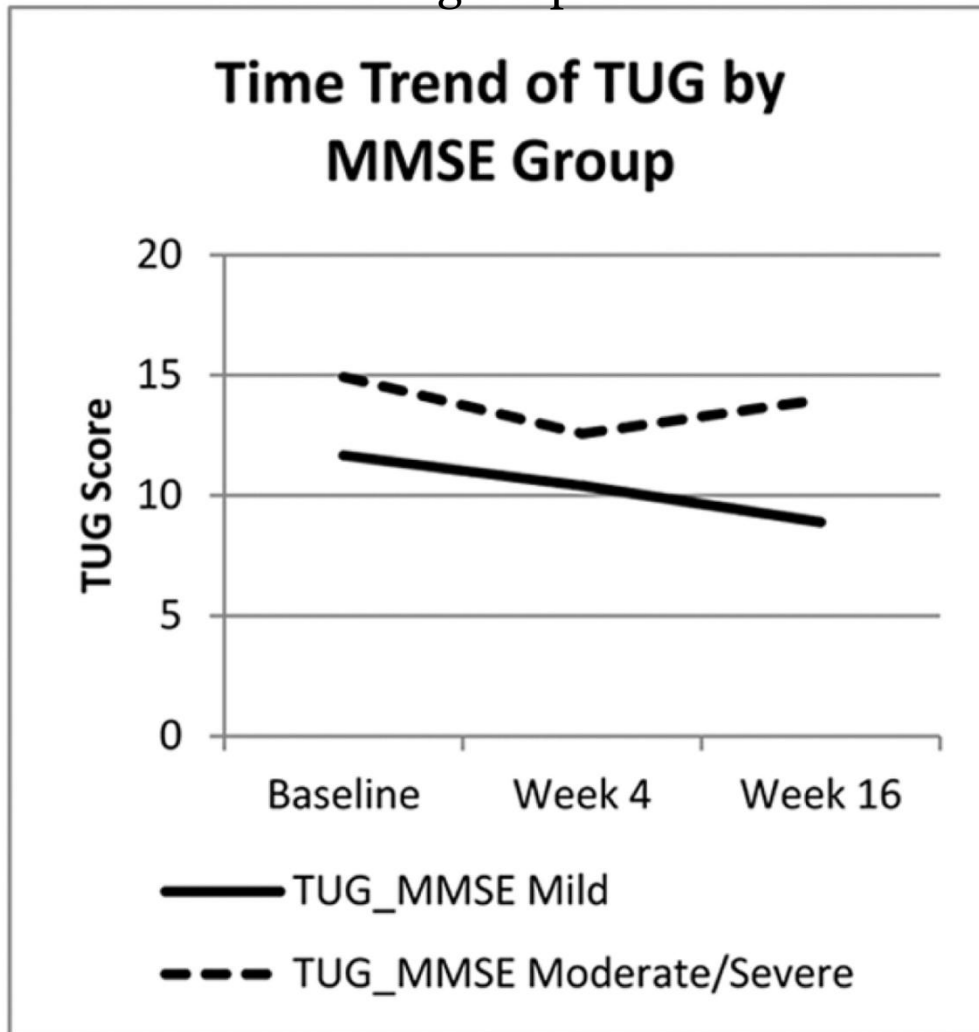
Figure 1. PubMed tai chi article citations by year: *January 1974 to October 2015*.



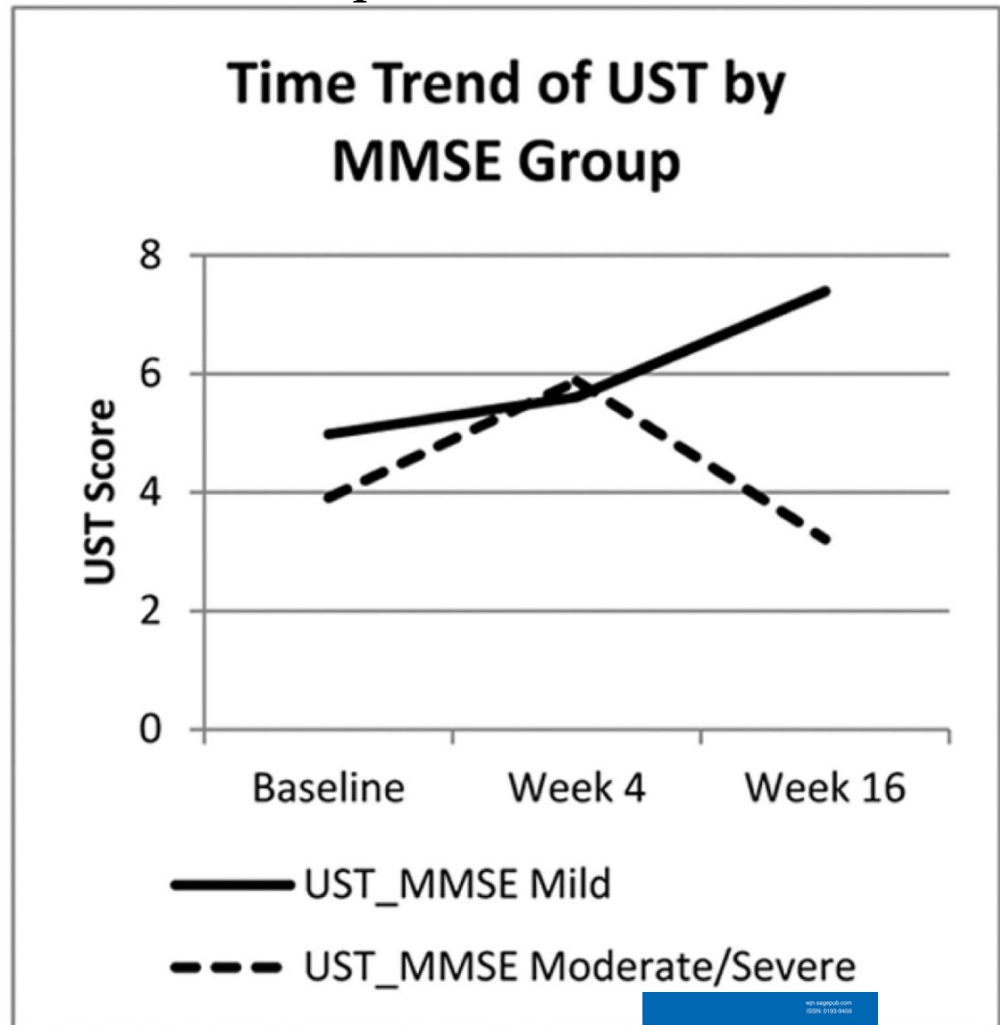
Patricia Huston & Bruce McFarlane, Can Fam Phys, 2016

Tai Chi e rischio di caduta in soggetti affetti da demenza

Timed get Up and Go



Unipedal Stance Time



L Yao et al., West J Nurs Res, 2013



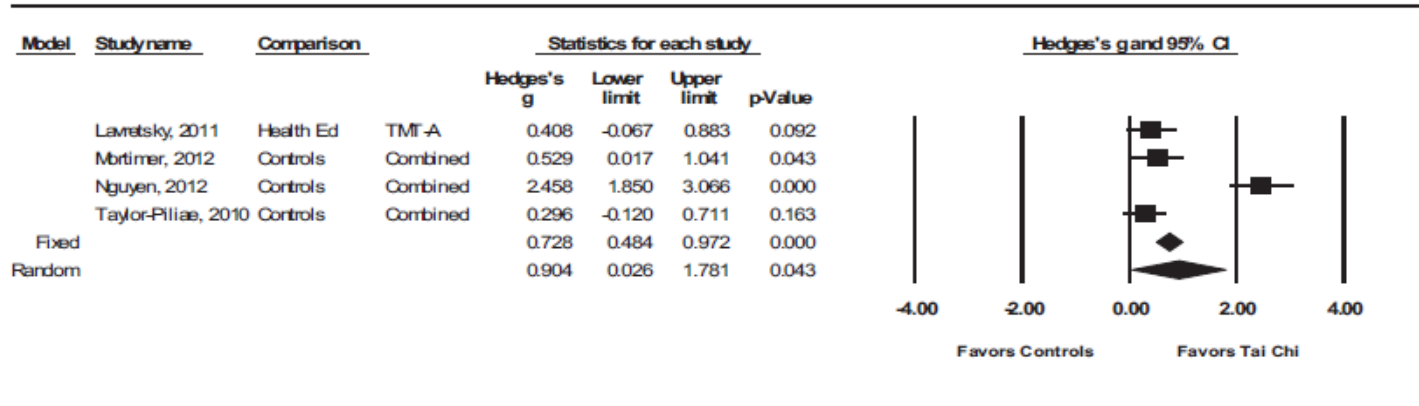
Effect of Tai Chi on Cognitive Performance in Older Adults: Systematic Review and Meta-Analysis

Peter M. Wayne, PhD,^{*†} Jacquelyn N. Walsh, BS,^{*†} Ruth E. Taylor-Piliae, PhD, RN,[‡] Rebecca E. Wells, MD, MPH,[§] Kathryn V. Papp, PhD,^{†||} Nancy J. Donovan, MD,^{**††} and Gloria Y. Yeh, MD, MPH^{††}

COGNITIVELY HEALTHY

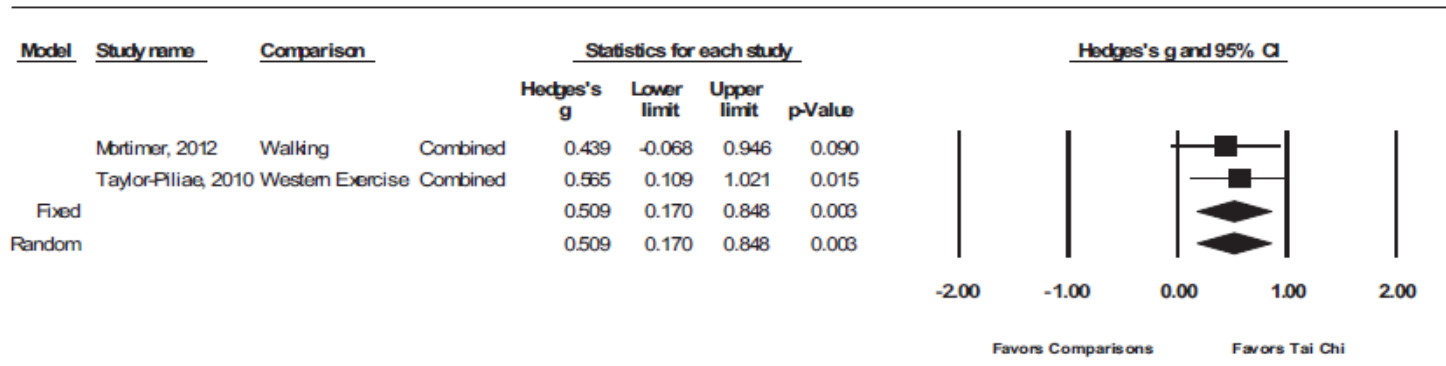
A

Executive Function: Tai Chi vs Controls



B

Executive Function: Tai Chi vs Active Comparisons



Journal of the
AMERICAN GERIATRICS SOCIETY

VOLUME 62
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JANUARY 2014

- Prolonged Mechanical Ventilation in 540 Seriously Ill Older Adults: Effects of Increasing Age on Clinical Outcomes and Survival
- Ten-Year Effects of the Advanced Cognitive Training for Independent and Vital Elderly Cognitive Training Trial on Cognition and Everyday Functioning in Older Adults
- Increase in Daytime Sleepiness Is Associated with Improvement in Cognition After Hospital Discharge in Older Adults
- Effectiveness of Cranberry Capsules to Prevent Urinary Tract Infections in Vulnerable Older Persons: A Double-Blind Randomized Placebo-Controlled Trial in Long-Term Care Facilities
- Role of Body Temperature in Diagnosing Bacterial Infection in Nursing Home Residents
- Recommendations Abstracted from the American Geriatrics Society Consensus Statement on Vitamin D for Prevention of Falls and Their Consequences
- Anticoagulation Management in Individuals with Hip Fracture

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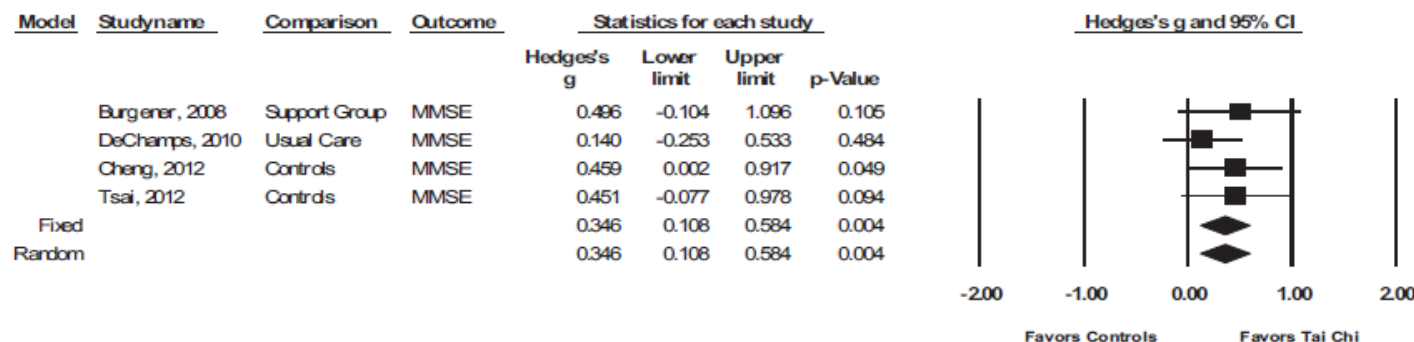
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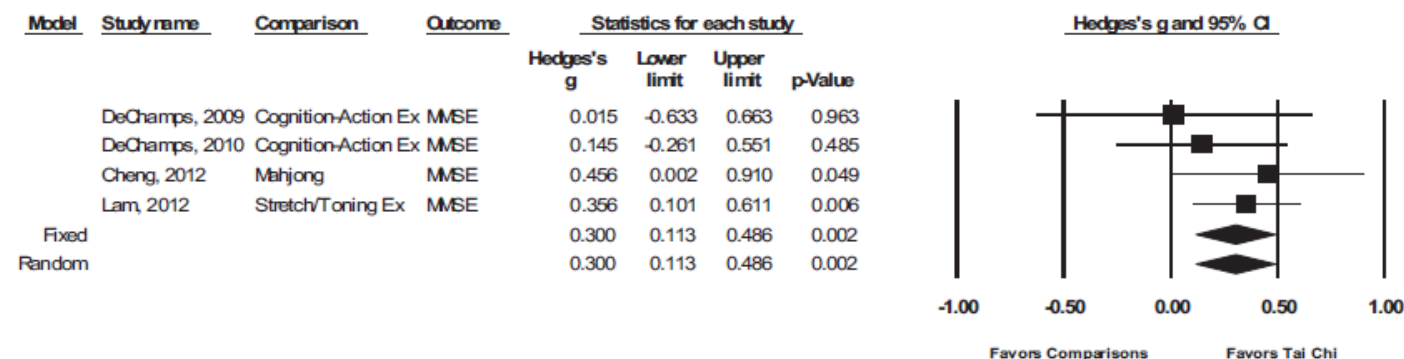
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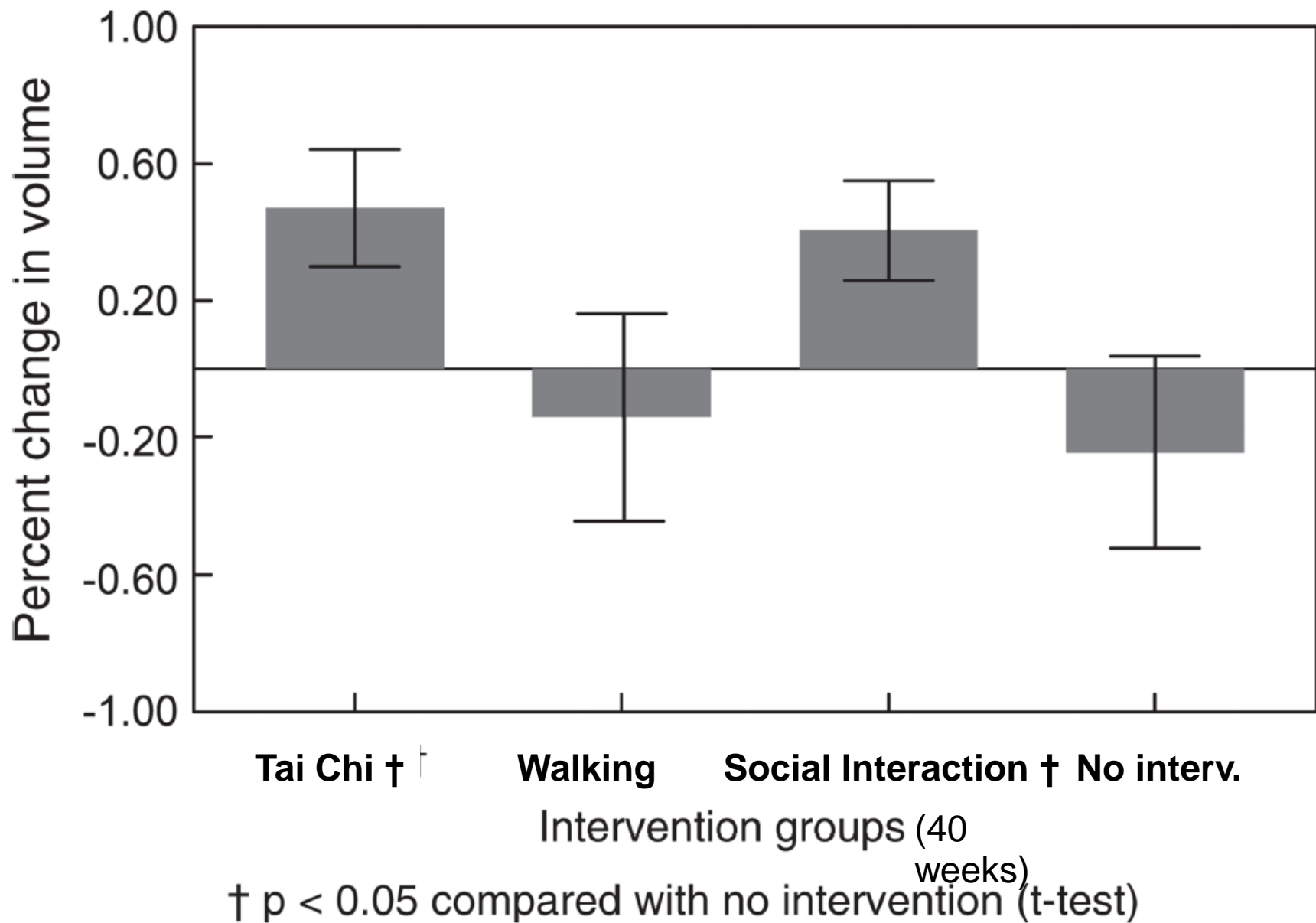
COGNITIVELY IMPAIRED

C Global Cognition: Tai Chi vs Controls



D Global Cognition: Tai Chi vs Active Comparisons





Improvements also were observed in several neuropsychological measures in the Tai Chi group,

Table 2. Tai chi research: Summary of evidence from 120 systematic reviews and recent clinical trials; there is very little evidence for italicized conditions.

EXCELLENT EVIDENCE OF BENEFIT	GOOD EVIDENCE OF BENEFIT	FAIR EVIDENCE OF BENEFIT WITH MIXED RESULTS	PRELIMINARY EVIDENCE OF BENEFIT	EVIDENCE OF NO DIRECT BENEFIT
GENERAL HEALTH AND FITNESS BENEFITS				
Balance, ¹⁶¹⁻¹⁷³ • 10 systematic reviews	Strength ^{159,178-182} • 2 systematic reviews	Well-being ^{69,183-185} • 4 systematic reviews	Flexibility ^{163,173,178,182} • 1 systematic review	NA
Aerobic capacity ^{159,174-178} • 5 systematic reviews		Sleep ¹⁸⁶⁻¹⁹¹ • 2 systematic reviews	<i>Immune capacity</i> ¹⁹² <i>Kidney function</i> ^{121,193,194}	

Patricia Huston & Bruce McFarlane, Can Fam Phys, 2016

Table 2. Tai chi research: Summary of evidence from 120 systematic reviews and recent clinical trials; there is very little evidence for italicized conditions.

EXCELLENT EVIDENCE OF BENEFIT	GOOD EVIDENCE OF BENEFIT	FAIR EVIDENCE OF BENEFIT WITH MIXED RESULTS	PRELIMINARY EVIDENCE OF BENEFIT	EVIDENCE OF NO DIRECT BENEFIT
		SPECIFIC CONDITIONS		
Preventing falls ⁶⁻¹⁹ <ul style="list-style-type: none"> • 14 systematic reviews Osteoarthritis ²⁵⁻³⁸ <ul style="list-style-type: none"> • 10 systematic reviews Parkinson disease ³⁹⁻⁵³ <ul style="list-style-type: none"> • 8 systematic reviews COPD rehabilitation ⁵⁴⁻⁵⁹ <ul style="list-style-type: none"> • 6 systematic reviews Improving cognitive capacity ⁶²⁻⁶⁸ <ul style="list-style-type: none"> • 5 systematic reviews 	Depression ⁶⁹⁻⁷⁷ <ul style="list-style-type: none"> • 8 systematic reviews Cardiac rehabilitation ⁷⁸⁻⁸⁸ <ul style="list-style-type: none"> • 6 systematic reviews Stroke rehabilitation ⁸⁹⁻⁹⁵ <ul style="list-style-type: none"> • 5 systematic reviews Cognitive impairment and dementia ^{65,98} <ul style="list-style-type: none"> • 2 systematic reviews 	Quality of life for cancer patients ¹⁰⁰⁻¹⁰⁷ <ul style="list-style-type: none"> • 7 systematic reviews Fibromyalgia ¹⁰⁸⁻¹¹⁴ <ul style="list-style-type: none"> • 4 systematic reviews Hypertension ¹¹⁷⁻¹²¹ <ul style="list-style-type: none"> • 4 systematic reviews Osteoporosis ¹²²⁻¹²⁶ <ul style="list-style-type: none"> • 3 systematic reviews 	Stroke prevention ¹²⁷ <ul style="list-style-type: none"> • 1 systematic review Anxiety ^{69,129} <ul style="list-style-type: none"> • 2 systematic reviews Low back pain ¹³⁰⁻¹³³ <ul style="list-style-type: none"> • 1 systematic review Postoperative arm mobility in breast cancer patients ¹³⁴ <ul style="list-style-type: none"> • 1 systematic review <i>Multiple sclerosis</i> ¹³⁵⁻¹³⁸ <i>Schizophrenia</i> ^{139,140} <i>PTSD</i> ^{141,142} <i>Attention deficit disorder</i> ^{143,144} <i>After brain and spinal cord injury</i> ^{146,147}	Diabetes (eg, HbA _{1c}) ¹⁴⁹⁻¹⁵³ <ul style="list-style-type: none"> • 4 systematic reviews Rheumatoid arthritis ¹⁵⁴⁻¹⁵⁷ <ul style="list-style-type: none"> • 3 systematic reviews Chronic heart failure ¹⁵⁸⁻¹⁶⁰ <ul style="list-style-type: none"> • 2 systematic reviews

Patricia Huston & Bruce McFarlane, Can Fam Phys, 2016



Genova, Il vecchio porto: fine del XIX secolo

Grazie per l'attenzione!