

# Clinical Trials Corner

Dear Readers,

Welcome to the Clinical Trials Corner of *Nutrition and Healthy Aging*. The aim of this section is to inform readers of new clinical trials underway, and highlight new findings. If you would like to draw attention to a specific topic or clinical trials, please email me at: [leonie.heilbronn@adelaide.edu.au](mailto:leonie.heilbronn@adelaide.edu.au)

While sleep is considered one of the pillars of health, 33–45% of adults report inadequate sleep (1). Moreover, our understanding of the impact of age-related changes in sleep duration, structure and timing on cognition, metabolic health, and lifespan are limited. In contrast to flies, in whom short sleep duration reduces lifespan (2), epidemiological studies show that sleep duration is both positively and negatively associated with lifespan in humans (3). A limited number of studies have tested whether improving sleep health will improve biomarkers of metabolic health and longevity to date.

In 2012, investigators at the University of California initiated a multi-site, 12 week randomised controlled study to examine whether a 1-hour reduction of time spent in bed has negative or positive effects on multiple health-related outcomes, including sleepiness, inflammation, body weight, mood, glucose regulation, quality of life, incidence of illness, and incidence of automobile accidents in 200 older (60–80 years) long sleepers (8–9 hours) vs. average sleepers (6–7,25 hours). These investigators are also conducting a 2-year trial to investigate the ability of cognitive behavioural therapy to improve sleep quality (CBT-SQ) to reduce sleep complaints, and depression, as well as cellular and genomic markers of inflammation in 300 older adults who report poor sleep health, and who have a prior history of depression. Both trials are slated for completion this year.

In 2016, investigators at the University of British Columbia initiated a randomised controlled trial, in 96 individuals aged 65–85 years, to examine the effects of a lifestyle intervention, whereby participants attend a 4 week sleep hygiene course, followed by a 20 week lifestyle activation program, and a bright light therapy program to improve sleep quality and cognitive function.

We await results from these, and other trials, to aid our understanding as to whether we can sleep our way to an exceptional age.

Sincerely,

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## References:

- [1] Adams RJ et al. Sleep health of Australian adults in 2016: results of the 2016 Sleep Health Foundation national survey. *Sleep Health*. 2017;3:35-42.
- [2] Bushey et al. Sleep, aging, and lifespan in *Drosophila*. *BMC Neuroscience*. 2010;11:56
- [3] Stenholm et al. Sleep duration and sleep disturbances as predictors of healthy and chronic disease-free life expectancy between ages 50 and 75: A pooled analysis of three cohorts. *J Gerontol A Biol Sci Med*. 2018. doi: 10.1093/gerona/gly016.

**<https://www.clinicaltrials.gov/>**

**A). Study Title:** Chronic Moderate Sleep Restriction in Older Long Sleepers and Older Average Sleepers.

**Clinicaltrials.gov identifier:** NCT01642719

**Sponsor:** University of California, Los Angeles.

**Collaborator:** National Heart, Lung and Blood Institute

**Primary Outcome:** Change in adherence to sleep restriction [Time Frame: 12 weeks]

**Secondary Outcomes:** Change in sleepiness and sleep quality by self report, change in cognitive function, physical activity, glucose metabolism, inflammation and depression.

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**B). Study Title:** Aging: Sleep and Inflammatory Mechanism in Depression Prevention.

**Clinicaltrials.gov identifier:** NCT01641263

**Sponsor:** University of California, Los Angeles.

**Collaborator:** National Institute on Aging (NIA)

**Primary Outcome:** Change in depression [Time Frame: Every 6 months for 2 years]

**Secondary Outcomes:** Change in inflammation, health and daily function, mental health, physical activity, social function, sleep disturbance, from baseline [Time Frame: Every 6 months for two years or longer]

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**C). Study Title:** Buying Time: Improving Sleep to Promote Cognitive Function in Older Adults.

**Clinicaltrials.gov identifier:** NCT02926157

**Sponsor:** University of British Columbia.

**Primary Outcome:** Change in sleep quality by actigraphy [Time Frame: Baseline, 3 months, 6 months]

**Secondary Outcomes:** Change in sleep quality by self report, change in activity by activity and self report, change in cognitive function [Time Frame: Baseline, 3 months, 6 months]