



Breaking News on Supplements, Health & Nutrition - North America

Melatonin-rich tart cherries may improve sleep quality: RCT

By Stephen Daniells, 08-Jan-2013

Related topics: Antioxidants/carotenoids, Polyphenols, Research

A glass or two of tart cherry juice before bedtime may improve sleep, suggest results from a randomized, double-blind, placebo-controlled trial.

Tart cherry juice was associated with significant increases in time spent in bed, and total sleep time, with the benefits linked to the melatonin content of the fruit.

"This is the first investigation to demonstrate that dietary tart cherry juice concentrate increases urinary melatonin levels and provides improved sleep time and quality in a healthy adult population," wrote the researchers in the *European Journal of Nutrition*.

"Although the interaction of other phytochemicals cannot be completely ruled out, these data provide a mechanism of action for the previously conjectural reports of improved sleep quality with cherry juice supplementation," added researchers from Northumbria University (UK), University of Johannesburg (South Africa), the University of Surrey (UK), and the Nicholas Institute of Sports Medicine and Athletic Trauma in New York.

The tart Montmorency cherry (*Prunus cerasus*) juice was provided by CherryActive (UK).

Study details

The study involved 10 healthy men and 10 healthy women with a mean age of 26.6 and a mean BMI of 24.7 kg/m². The participants were randomly assigned to consume either the tart cherry concentrate or placebo for seven days.

A 30 ml serving of tart cherry juice concentrate – containing the equivalent of 90-100 cherries – was given in the morning and one in the evening, and diluted with 200 ml of water.

Results showed that urine levels of melatonin increased following tart cherry consumption, while no such increases were observed in the placebo group.

Improvements in sleep measures were also reported by the researchers. Specifically, sleep efficiency increased by 5-6%, while total sleep time increased by an average of 34 minutes per night, compared with a decline in the placebo group.

Bioactives?

Commenting on the potential mechanism, the researchers note that tart Montmorency cherries are claimed to contain high levels of phytochemicals including melatonin.

However, they also note that melatonin may not be the only explanation, *"given that sleep regulation is also influenced by pro-inflammatory cytokines.*

"Tart cherries have been shown to contain numerous phenolic compounds that have anti-inflammatory and antioxidant properties that can increase antioxidant capacity.

"Furthermore, cherry juice has been shown to decrease oxidative stress and inflammation following strenuous exercise making it possible that these antioxidant and/or anti-inflammatory properties modulated indices of sleep in this study, although this remains to be demonstrated in an experimental model."

Source: *European Journal of Nutrition*

December 2012, Volume 51, Issue 8, Pages 909-916, doi: 10.1007/s00394-011-0263-7

"Effect of tart cherry juice (Prunus cerasus) on melatonin levels and enhanced sleep quality"

Authors: G. Howatson, P.G. Bell, J. Tallent, B. Middleton, M.P. McHugh, J. Ellis

Copyright - Unless otherwise stated all contents of this web site are © 2016 - William Reed Business Media SAS - All Rights Reserved - For permission to reproduce any contents of this web site, please email our Syndication department copyright@wrbm.com - Full details for the use of materials on this site can be found in the Terms & Conditions

© 2016 - William Reed Business Media SAS - All rights reserved.

William Reed 
BUSINESS MEDIA