

Cherry Juice Gives a Good Nights' Sleep

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Drinking cherry juice significantly improves both the quality and duration of sleep, according to new findings from Northumbria University.

Researchers from the School of Life Sciences have found that Montmorency cherry juice significantly increases the levels of melatonin in the body, the hormone which regulates sleep, and could benefit those who have difficulty sleeping due to insomnia, shift work or jet lag.

Their findings, which are published this week in the online edition of the *European Journal of Nutrition*, reveal that people who have consumed cherry juice not only sleep for longer, but they also have improved quality of sleep, or 'sleep efficiency'.

In the study, led by Dr Glyn Howatson, 20 healthy volunteers drank a 30ml serving of either tart cherry juice or a placebo juice twice a day for seven days.

Urine samples were collected from all participants before and during the investigation to determine levels of melatonin, a naturally occurring compound that heavily influences the human sleep-wake cycle.

During the study the participants wore an actigraphy watch sensor which monitored their sleep and wake cycles and kept a daily diary on their sleeping patterns.

The researchers found that when participants drank cherry juice for a week there was a significant increase in their urinary melatonin (15-16%) than the control condition and placebo drink samples.

The actigraphy measurements of participants who consumed the cherry juice saw an increase of around 15 minutes to the time spent in bed, 25 minutes in their total sleep time and a 5-6% increase in their 'sleep efficiency', a global measure of sleep quality.

Cherry juice drinkers reported less daytime napping time compared to their normal sleeping habits before the study and the napping times of the placebo group.

According to Dr Howatson, this is the first study to show direct evidence that supplementing your diet with a tart Montmorency cherry juice concentrate leads to an increase in circulating melatonin and provides improvements in sleep amongst healthy adults.

Dr Howatson, an exercise physiologist, said: "We were initially interested in the application of tart cherries in recovery from strenuous exercise. Sleep forms a critical component in that recovery process, which is often forgotten. These results show that tart cherry juice can be used to facilitate sleep in healthy adults and, excitingly, has the potential to be applied as a natural intervention, not only to athletes, but to other populations with insomnia and general disturbed sleep from shift work or jet lag."

The study's co-authors are fellow Northumbria University academics Dr Jason Ellis, director of the Centre for Sleep Research, School of Life Sciences PhD students Jamie Tallent and Phillip Bell; Benita

Middleton of the Centre for Chronobiology at University of Surrey; and Malachy McHugh of the Nicholas Institute of Sports Medicine and Athletic Trauma in Lenox Hill Hospital, New York.

Dr Ellis said: "Although melatonin is available over the counter in other countries, it is not freely available in the UK. What makes these findings exciting is that the melatonin contained in tart cherry juice is sufficient to elicit a healthy sleep response. What's more, these results provide us with more evidence surrounding the relationship between how we sleep and what we consume."