

Tomatoes for Sleep?

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Believe it or not, research indicates that tomatoes are good for sleep. Why? Because tomatoes naturally contain melatonin.

Consider the Mediterranean diet, which is well established for its beneficial effects on human health. Part of the reason for this is that the Mediterranean diet is rich in antioxidants, such as melatonin—which of course is a hormone produced mainly by the pineal gland and controls several circadian rhythms. Additionally, melatonin is found in foods, such as fruit and vegetables. A systematic review¹ was undertaken to assess the melatonin content in Mediterranean foods and to evaluate the influence of those foods on melatonin levels in humans. The results were that Mediterranean diet-related foods, such as tomatoes, olive oil, and vegetables, showed high melatonin contents, and the consumption of these foods increased melatonin levels and improved the antioxidant status in plasma.

TOMATOES BEFORE BEDTIME

An 8-week, randomized controlled trial² with 36 subjects was conducted to investigate the effect of the ingestion of tomato before bedtime on obese postmenopausal women's urinary 6-sulphatoxymelatonin (a major melatonin metabolite) level and sleep quality. Melatonin concentrations were quantified in various tomatoes with beefsteak tomato containing the highest level of melatonin. In this 8-week open-label, randomized controlled dietary intervention trial, 36 subjects completed the entire trial. The tomato group ate beefsteak tomatoes 2 hours before sleep. Blood and urine samples were collected at the baseline and in the 8th week. Results were that the Pittsburgh Sleep Quality Index (PSQI) in the tomato group significantly decreased with time ($P = 0.0297$). After 8 weeks of the beefsteak intervention, all components of the PSQI in the tomato group had significantly improved, and 6-sulphatoxymelatonin level were 10-fold significantly higher than that of the control group. In conclusion, supplementation with beefsteak tomato before sleep increased circulating melatonin and improved sleep quality in obese postmenopausal women.

TOMATO CAPSULES BEFORE BEDTIME

In this study³, 70 patients with primary insomnia were assigned to 2 groups randomly: intervention and control. The intervention group took tomato capsules every night for 2 weeks, and the placebo one took placebo capsules every night for 2 weeks. All patients used to fill out Insomnia Severity Index (ISI) and PSQI questionnaires before and after the intervention. ISI and PSQI results were analyzed. Results were that, at the end of the study, the absolute value of ISI score change in the intervention group was significantly higher than the control group ($P < 0.001$). Most importantly, the improvement of both ISI and PSQI scores in the intervention group was significantly better than the control group ($P > 0.05$). In conclusion, this study showed that tomato capsules have sleep-inducing effects.

SOMATO™ WHOLE FOOD DERIVED MELATONIN FROM TOMATOES

Recently, Nutraland USA introduced Somato™, the industry's *first whole food derived melatonin from tomatoes*, as an alternative to standard synthetic melatonin. In addition to providing naturally occurring melatonin, Somato™ also provides naturally occurring lycopene. The value of this is that lower intakes of

lycopene have been found to be associated with lower levels of sleep (<5 hours)⁴ and sleeping issues⁵. Consequently, the combination of melatonin bodes well for sleep support.

It should also be noted that whole food derived sources of vitamins and other nutraceuticals are extremely popular, with analysts predicting a 11.9% compound annual growth rate (CAGR) through 2028⁶. This likewise bodes well for the future of Somato™ in sleep support dietary supplements.

Nutraland USA offers clean, plant-based and sustainable branded ingredients supported by science. Our nutraceuticals are good for you, and good for the planet. For more information about how you can use Somato™ whole food derived melatonin from tomatoes in your dietary supplements, contact gene.bruno@neutralandusa.com; 949-988-7615.

REFERENCES

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³ Dehnavi P, Rakhshandeh H, Bakhtiari E, Asadpour H, Moshirian Farahi SM, Forouzanfar F. Effect of Tomato (*Solanum lycopersicum*) Extract in Patients with Primary Insomnia: A Double-blind Randomized Study. *Cent Nerv Syst Agents Med Chem*. 2023;23(2):137-143.

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⁵ Chen Z, Yu L, Li W, Zhang H, Huang X, Chen W, Wang D. Association of vitamins with hearing loss, vision disorder and sleep problem in the US general population. *Environ Sci Pollut Res Int*. 2023 Apr;30(18):53876-53886.

⁶ Plant-Based Vitamin Sources: Challenges and Innovations. Eurofins. Retrieved November 7, 2023 from <https://www.eurofinsus.com/food-testing/resources/plant-based-vitamin-sources-challenges-and-innovations/#:~:text=Plant%2Dbased%20vitamin%20trends,supplements%20from%202020%20until%202028>.