

Melatonin for supportive and selective cancer therapeutics

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Commentary

Melatonin has numerous potential effects for the immune system.¹ Melatonin is a powerful antioxidant and free radical scavenger that helps fight inflammation.² In fact, because melatonin is essential to the immune system, a lack of melatonin causes thymic atrophy, a key component of the immune system. Melatonin can also delay the aging of the brain.³

This hormone also interferes with the supply of new blood for the rapid growth of the tumor and angiogenesis.⁴ Melatonin increases the effectiveness of cancer chemotherapy and reduces toxicity.⁵ Current research suggests that melatonin deficiency may present some nuisance biological shortcomings, such as high levels of inflammation, weakened immune systems, and increased risk of cancer. One of the obvious ways to reduce the natural melatonin production of the human body is to expose to artificial light at night, even for a short time.⁶ Several studies have found that night shift workers have a higher incidence of cancer, especially breast cancer.⁷ Although supplements can help, it is much more beneficial for the body to produce melatonin on its own. This natural way of obtaining “perfect” melatonin capacity, is a way not overflowing and not wasting away. Because the human body uses feedback circuitry to adjust the right dose, it is possible to obtain the most adequate amount of melatonin through natural methods. Hence, our research suggests that due to the importance of sleep in improving the natural secretion melatonin, the increase of physiological sleep will have beneficial effects on the immune system via melatonin secretion. However, as mentioned above, if there is a reason one cannot naturally stretch melatonin, clinicians can consider supplements, but using the suggestions outlined above is still a much wiser method.^{8,9}

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Conflicts of interest

The author declared that there are no conflicts of interest.

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