



Role of Melatonin in Health and Disease

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Message from the Guest Editor

Synthesized melatonin, with circadian rhythmicity by the pineal gland, and by other tissues in humans, is fundamentally known as a regulator of the wake-sleep cycle, and for its antioxidant capacity, by purifying free radicals generated in oxidative stress reactions. In addition to jet lag, due to its physiological decrease with age, melatonin is used to prevent processes derived from aging. It is an essential molecule in the treatment of diseases related to chronodisruption, such as accelerated aging; sleep and mood disorders; cognitive impairment, due to its neuroprotective capacity; metabolic syndrome; cardiovascular diseases; some types of cancer. Due to its function, not only antioxidant, but also anti-inflammatory and immunomodulatory, its therapeutic indications are expanding at the level of transplant medicine. Recently, the use of melatonin in infections such as that caused by COVID-19 has been proposed. As a result of its broad physiological actions and its potential beneficial effects, together with its high bioavailability and little or no toxicity, melatonin has been proposed as a safe and effective treatment for numerous diseases.





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Message from the Editor-in-Chief

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