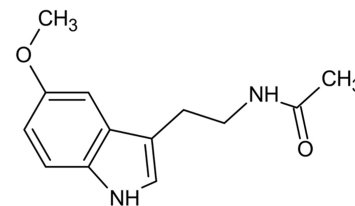


# Melatonin Overview



## **What is Melatonin?**

Melatonin is a hormone produced primarily by the pineal gland in response to darkness. It plays a critical role in regulating sleep-wake cycles and maintaining circadian rhythms. Melatonin levels naturally rise in the evening to promote sleep and decrease in the morning to support wakefulness.

## **Why Do We Need Melatonin?**

Modern lifestyles, artificial lighting, shift work, and excessive screen time can disrupt Melatonin production, leading to sleep disturbances. Supplementing Melatonin can help restore natural sleep cycles, especially in individuals with irregular sleep patterns, jet lag, or insomnia.

## **What Does Melatonin Do in the Body?**

Regulates Sleep: Helps initiate and maintain sleep by signaling the body that it is time to rest.

Supports Circadian Rhythms: Regulates the body's internal clock to align with natural day-night cycles.

Antioxidant Properties: Protects cells from oxidative stress and supports mitochondrial function.

Immune System Support: Plays a role in immune regulation and inflammation control.

Mood Regulation: Contributes to mental well-being by interacting with serotonin pathways.

## **How Much Melatonin Do We Need?**

General Dosage: 0.5–3 mg per day for mild sleep disturbances or adjusting to time zone changes.

Therapeutic Dosage: 3–10 mg per day for chronic insomnia, shift work disorder, or jet lag.

Best Absorption: Sublingual (under-the-tongue) and liquid formulations provide the most bioavailable forms, allowing for faster absorption.

## **What Does Melatonin Supplementation Do to Natural Production?**

Short-term supplementation does not appear to significantly suppress the body's own production.

Long-term use at high doses may lead to reduced endogenous production, but this effect is typically reversible once supplementation is discontinued.

Proper timing and dosing can minimize any negative impact on natural Melatonin synthesis.

## **Benefits of Melatonin Supplementation**

Improves Sleep Quality: Reduces time to fall asleep and enhances overall sleep duration.

Eases Jet Lag: Helps the body adjust to new time zones faster.

Supports Shift Workers: Assists individuals working night shifts in regulating their sleep patterns.

Enhances Antioxidant Protection: Reduces oxidative stress and supports brain health.

Promotes Relaxation: Helps reduce anxiety and promotes a calm state before sleep.

May Support Eye and Gut Health: Plays a role in retinal function and gastrointestinal regulation.

## **Most Bioavailable Form of Melatonin**

Sublingual and Liquid Melatonin: Absorbed directly into the bloodstream for faster effects.

Controlled-Release Melatonin: Helps maintain sustained melatonin levels throughout the night.

## **Conclusion**

Melatonin is essential for regulating sleep and maintaining circadian rhythms. Supplementing with bioavailable forms such as sublingual or liquid melatonin can be beneficial for sleep disorders, jet lag, and general well-being. Proper usage ensures minimal impact on natural production while supporting overall health.