



MELATONIN

Common Names: *Melatonin*

Scientific Names: *N-acetyl-5-methoxytryptamine*

Effectiveness: There is mixed evidence regarding the possible benefit of melatonin to improve sleep. Some evidence shows melatonin has a trend towards benefit for improving sleep in patients with insomnia.

Safety: Melatonin seems to be safe for up to three months.

What is Melatonin?

- Melatonin is a hormone made in the brain. Its production is affected by light, with more melatonin being produced when it is dark and less when it is light out.
- The amount of melatonin in the blood is highest at night time.

What it is it used for in people with rheumatic conditions?

- Melatonin has been used to improve sleep in patients with a variety of medical conditions. It is possible that melatonin may be able to help improve sleep in patients that have rheumatic conditions.

How is it thought to work?

- Melatonin may help with sleep and jet lag by playing a role in regulating the body's circadian rhythm (biological clock) and affecting sleep patterns.

Does it Work? What the Science Says:

- There have been many studies on melatonin for sleep with varying results. A meta-analysis of 14 medium quality studies (Jadad score 4) measuring sleep onset and efficacy in primary sleep disorders determined melatonin improved sleep but did not reach statistical significance, except in a subgroup of patients with delayed sleep phase syndrome.

- A meta-analysis determined there is no evidence that melatonin is effective in treating secondary sleep disorders or disorders accompanying sleep restriction:
 - 6 medium quality RCTs (Jadad score 4) looked at sleep onset latency in patients with secondary sleep disorders: melatonin was not statistically different than placebo.
 - 9 medium quality RCTs (Jadad score 4) looked at sleep onset latency in people with sleep disorders accompanying sleep restriction (such as jet lag and shiftwork disorder): melatonin was not statistically different than placebo
 - 17 RCTs demonstrated that melatonin is safe (no adverse effects) when utilized for 3 months or less

What are possible side effects and what can I do about them?

- Melatonin orally is generally well-tolerated. The most common side effect is daytime drowsiness (20%).
- Some other less common but also noted side effects are headache, dizziness, mild tremor, mild anxiety, irritability, reduced alertness, confusion, nausea, vomiting and low blood pressure.

Interactions

With drugs:

- Theoretically, melatonin might increase the risk of bleeding in patients on anticoagulant/antiplatelet medications. The mechanism of this possible interaction is unknown but melatonin was shown to decrease plasma factors that make the blood clot.
- Common antiplatelet and anticoagulant drugs may include: *warfarin (Coumadin)*, *ASA (Aspirin)*, *clopidogrel (Plavix)*, *ticagrelor (Brilinta)*, *prasugrel (Effient)*, *enoxaparin (Lovenox)*, *dalteparin (Fragmin)*, *dabigatran (Pradaxa)*, *rivaroxaban (Xarelto)*, *apixaban (Eliquis)* and others.
- Higher doses of melatonin (20mg) may boost immune function. There is no information available about low dose melatonin used for treatment of insomnia.
- Fluvoxamine can increase melatonin levels by increasing absorption of melatonin and possibly reducing the removal of melatonin from the body. Monitor for drowsiness if using this combination.
- Melatonin can cause daytime drowsiness and sedation and should be used with caution with other medications that also have these effects, such as benzodiazepines, alcohol and more.

With Other Diseases:

- Theoretically, melatonin may worsen bleeding in patients with bleeding disorders, use with caution.
- Melatonin can increase blood pressure in patients on blood pressure lowering medications, monitor blood pressure more carefully.
- Melatonin may worsen seizures in certain patients (children with multiple neurological disorders), use with caution.

With Other Natural Health Products:

- The risk of bleeding may be increased if combined with other natural health products that also affect blood clotting.
- Such as: *garlic, ginkgo, ginger, certain types of ginseng, red clover, and others.*

For more information about Melatonin, consult your physician and pharmacist.