Comprehensive Melatonin Profile

Essence Hormone Tests

The most complete line of endocrine testing

Why is this test important?

Melatonin is an important neuroendocrine hormonal regulator that plays a significant role in reproductive health, sleep-wake cycles, mood, and body temperature.

Melatonin is also a potent antioxidant that plays a critical role in free radical scavenging.

What does this test involve?

Three saliva samples are collected at specific times of the day.

The report includes a quantitative value of each specimen, and a circadian analysis of melatonin activity.

What does this test measure?

High levels may bring about inhibition of ovulation, mood disorders, and/or a decreased body temperature.

Low levels may contribute to insomnia, sleep/wake disorders, mood disorders, increased risk of cardiovascular disease, immune disorders, and cancer.

INTERPRETIVE GUIDELINES

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Melatonin

Analyte	*Result*	*Suspect*:	*Consider*:
Melatonin	High	• An extended nocturnal dark phase, which may increase the duration of melatonin secretion, and precipitate a phase shift in the onset of melatonin production • Melatonin supplementation, or supplementation of its precursor, tryptophan • Other substances that may increase melatonin: **DRUGS** which may stimulate melatonin production, Fluvoxamine, Desipramine, Most MAO inhibitors **HERBS** which may raise melatonin levels, Hypericum perforatum (an MAO inhibitor), Cannabis sativa (marijuana) **FOODS** high in melatonin: Oats, sweet corn, rice, Japanese radish, ginger, tomatoes, bananas, barley **FOODS** high in tryptophan (melatonin precursor): Spirulina seaweed, soybean, cottage cheese, chicken liver, pumpkin seeds, turkey, chicken, watermelon seeds, almonds, peanuts, brewer's yeast, malted milk, milk, ice cream, yogurt • Decreased metabolism of melatonin by the liver (6-hydroxylation followed by sulfate or glucuronide conjugation) • Increased risk for mood disorders, such as Seasonal Affective Disorder (SAD) and mania	• Increase morning exposure to bright light, to lower melatonin production • Reduce or avoid melatonin and/or tryptophan supplements • Re-evaluate use of medications, herbs and dietary intake of melatonin-enhancing foods • Modify exercise routine if induced melatonin levels are not desired (daytime exercise can increase melatonin levels) • Evaluate liver metabolism for inadequate sulfation and/or glucuronidation using the Detoxification Profile • In cases of depression and other mood disorders, rule out other possible causes
	Low	*Suspect*: • An extended light phase of the day which may decrease the duration of melatonin secretion and/or exposure to light-at-night or electromagnetic fields • Drugs and other substances that may decrease melatonin levels: NSAIDS, anti-anxiety drugs and antidepressants (SSRIs and benzodiazepines), antihypertensives (beta-blockers, adrenergics, and calcium channel blockers), and steroids. Caffeine, tobacco, alcohol High doses of vitamin B12 (3 mg a day) • Evening exercise, which can decrease melatonin levels up to three hours after the end of exercise • Increased risk for mood disorders, such as some forms of depression • Increased metabolism of melatonin by the liver • Decreased production of melatonin by the pineal gland	*Consider*: • Avoid bright light at night and reduce exposure to electromagnetic fields, to prevent melatonin depletion • Re-evaluate the scheduled time of taking required medications If possible, avoid use of melatonin-lowering substances at times of recorded low melatonin • Modify exercise routine if reduced melatonin levels are not desired • In cases of depression and other mood disorders rule out other possible causes • Consider single or divided low dose melatonin supplementation* Dosing should be individualized to fit the clinical presentation Goal should be to resynchronize the circadian rhythm of melatonin *(*Use with caution in pregnancy or with corticosteroids taken for immuno-suppressive purposes)* • Consider ingestion of foods high in melatonin or melatonin precursor during time when recorded melatonin is low: See list of foods high in melatonin and tryptophan in left column above • Consider enhancing the production of melatonin with nutrient supplements during recorded times of low melatonin Niacinamide, vitamin B6, calcium, and magnesium • Avoid large doses of vitamin B-12 (3 mg a day), which may cause a significant decrease in melatonin levels

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Innovative Testing for Optimal Health

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