



INE | INSTITUTE OF
NUTRITIONAL
ENDOCRINOLOGY

Sleep: Supporting Clients to Achieve Restful Sleep - Part 3

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Essential Oils for Sleep

- ✓ Lavender
- ✓ Vetiver
- ✓ Roman chamomile
- ✓ Frankincense
- ✓ Ylang ylang
- ✓ Clary sage
- ✓ Valerian root
- ✓ Bergamot
- ✓ Sandalwood
- ✓ Marjoram
- ✓ Cedarwood
- ✓ Orange



<http://www.drritamarie.com/go/SleepEssentialOils>

<http://www.drritamarie.com/go/SleepRelaxationEssentialOils>



Using Essential Oils for Sleep

Combos:

- Sleep Essence: Young Living
- Stress Away: Young Living
- Peace and Calming: Young Living
- Serenity: doTERRA
- DIY Blend
 - 12 drops Orange
 - 8 drops Lavender
 - 4 drops Cedarwood
 - 3 drops Valerian
 - 2 drops Roman Chamomile

How to Use:

- Topical: on feet, head, or neck
- Diffuser
- On pillow



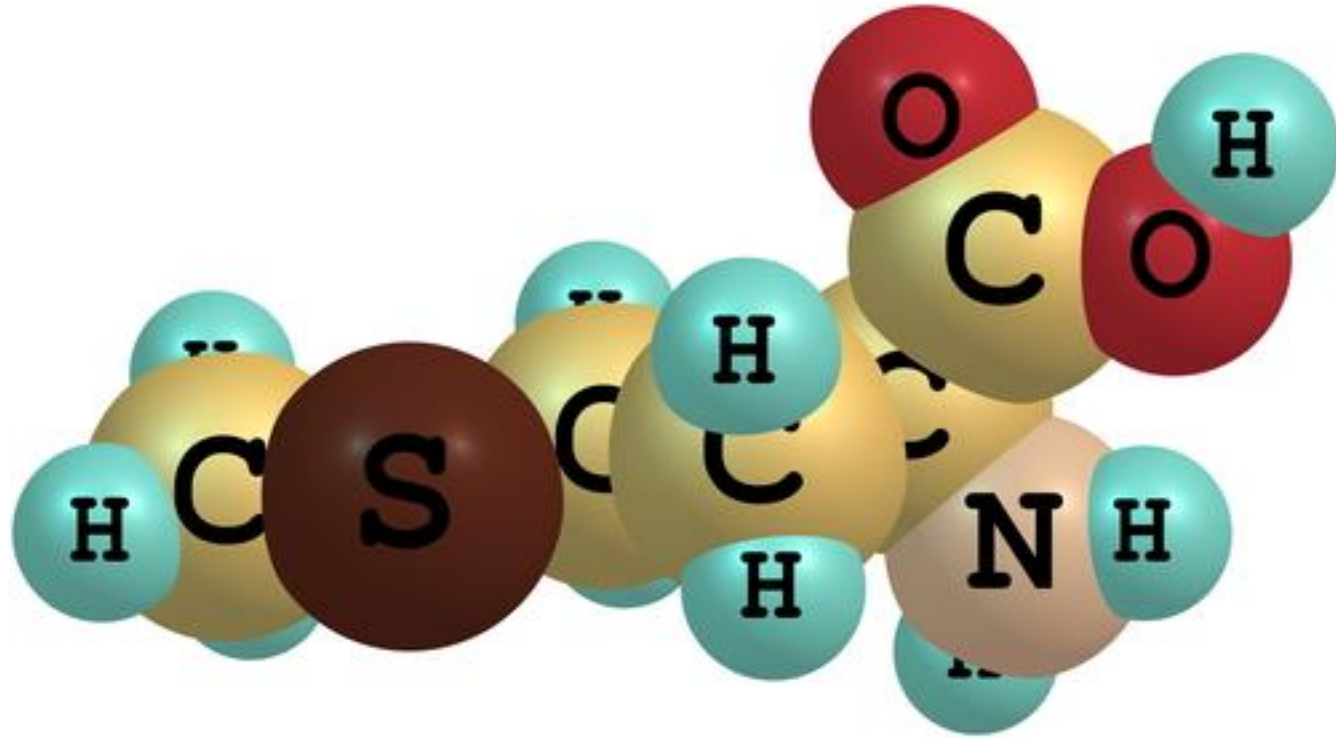
Adaptogens for Improved Sleep

- ✓ Ashwagandha
- ✓ Schisandra
- ✓ Eleuthero
- ✓ Ginseng (Korean and American)
- ✓ Holy Basil (Tulsi)
- ✓ Rhodiola



Amino Acids That Enhance Sleep

- ✓ Serine
- ✓ Theanine
- ✓ Tryptophan
- ✓ 5-HTP
- ✓ GABA
- ✓ Glycine
- ✓ Glutamine
- ✓ Taurine

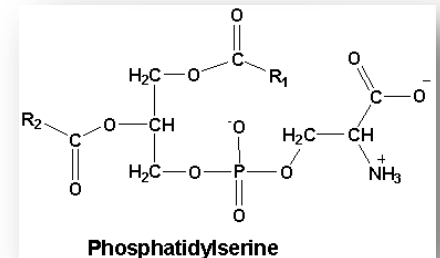


Amino Acids: Serine

✓ Nighttime high adrenaline and cortisol increase alertness
→ A hyper-vigilant state incompatible with restful sleep

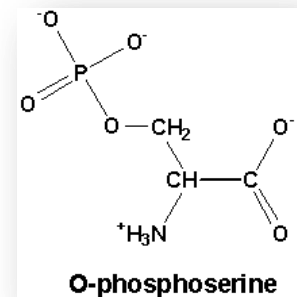
✓ Phosphatidylserine (a phosphorylated form)

- Lower cortisol levels
- Enhances brain function and memory
- Decrease anxiety and depression
- Improve mood
- Enhances metabolism
- Acts as an antioxidant



✓ Dosing:

- 100 mg at bedtime
- 100 mg upon each awakening
- Increase if no improvement within a week
- Optimal dose in studies is 800 mg per 24 hours
- Powdered form or topical is most economical



Amino Acids: Theanine

- ✓ Found in green and black tea
- ✓ Like 5-HTP, capable of crossing the blood barrier and directly influencing brain neurotransmitters, resulting in feelings of relaxation
- ✓ Does not promote sleep through sedation or drowsiness, but through relaxation
- ✓ Considered a safe, natural aid for quality sleep without side effects



Amino Acids: Tryptophan

- ✓ Essential amino acid
- ✓ Converted to 5-HTP, which is then converted into serotonin
- ✓ Serotonin then converts to melatonin
- ✓ Tryptophan is the only amino acid that can convert to serotonin and ultimately increase melatonin



Carbs, Tryptophan, and Sleep

- ✓ Theorized that eating carbohydrates makes it easier for tryptophan to cross the barrier, since it has to compete with other amino acids to make it through
- ✓ The release of insulin in response to the carbs directs the other amino acids to muscle, leaving tryptophan a clearer passage into the cerebrospinal fluid



Food Sources of Tryptophan

- ✓ Seeds: Pumpkin, chia, sesame, sunflower, flax
- ✓ Nuts: Pistachios, cashews, almonds, hazelnuts
- ✓ Legumes: soy, lentils, white beans
- ✓ Tart cherries and juice
- ✓ Bananas
- ✓ Poultry
- ✓ Meat
- ✓ Dairy products



Amino Acids: 5-HTP

✓ Griffonia Simplicifolia seeds

- Precursor to serotonin
- Easy-to-absorb and highly bioavailable
- One of the few nutrients that can cross the blood-brain barrier
- Requires vitamin B6 as a co-factor

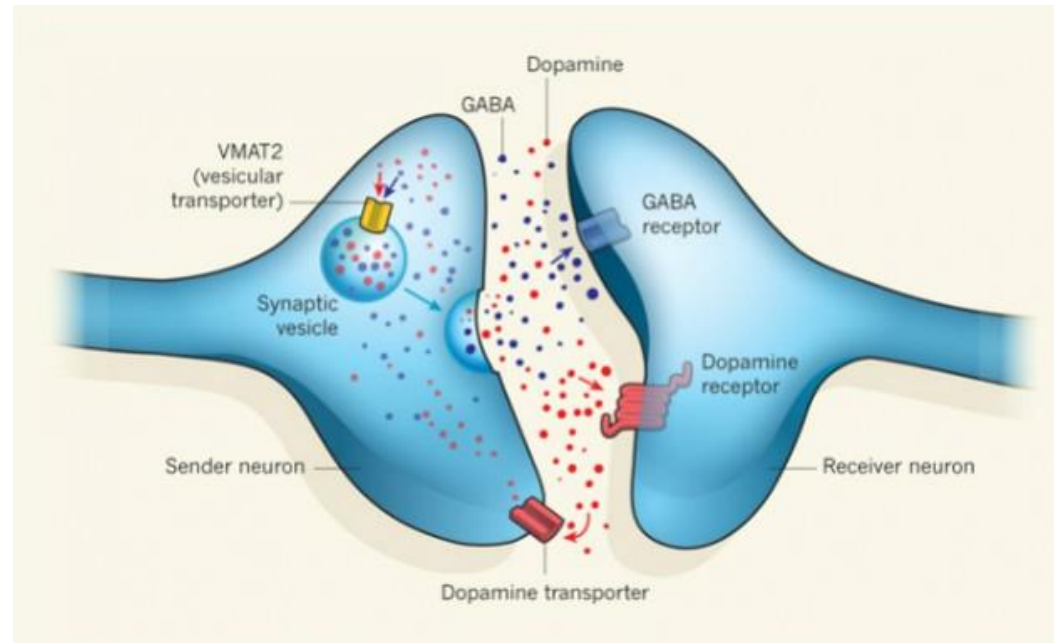
✓ Study: 12 healthy volunteers

✓ 5-HTP appeared to increase duration of REM sleep by up to 47%



Amino Acids: GABA

- ✓ Gamma-aminobutyric acid
- ✓ Calming neurotransmitter
- ✓ Effects similar to Valium
- ✓ Can reduce the activity of nerve cells in the brain
- ✓ Important role in attention deficit disorder (ADD), epilepsy, and Parkinson's disease



Amino Acids: Glycine

- ✓ Inhibitory neurotransmitter
- ✓ Lowers core body temperature
- ✓ Relaxes blood vessels at night
- ✓ **Study:** People with sleep issues
 - 3 grams of glycine or placebo before bed
 - Glycine group: significant improvements in fatigue, liveliness, peppiness, and mental clarity
- ✓ **Study:** 10 healthy males with no sleep complaints
 - Their normal average was 7.3 hours in bed
 - Given 3 grams of glycine at bedtime
 - Reduced time in bed to 5.5 hours for three consecutive nights
 - Significant improvements in fatigue, daytime sleepiness, and daytime performance even though sleep was restricted



Amino Acids: Glutamine

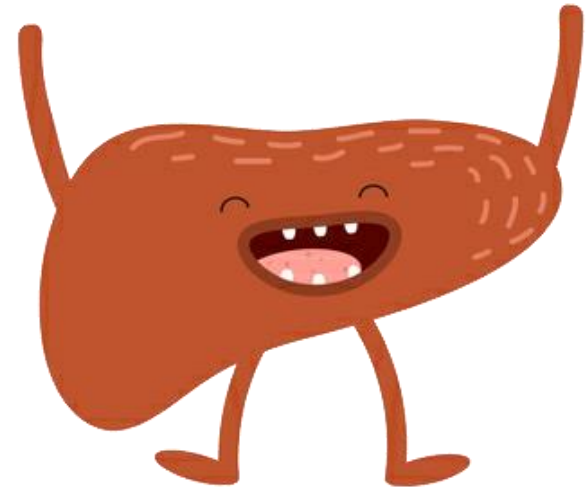
- ✓ Deficiency can lead to restlessness and insomnia
- ✓ The most important inhibitory neurotransmitter in the brain
- ✓ Responsible for the suppression of impulse conduction between neurons
- ✓ Calming effect on the brain allows for deeper sleep and normalization of physical equilibrium
- ✓ Sleep studies have indicated regular use of glutamine supplements leads to a more restful sleep



Amino Acids:

Glutamine, Ornithine, and Arginine

- ✓ Stimulate liver detoxification
- ✓ Conversion ammonia into urea
- ✓ Cellular toxin created by the breaking down of proteins
 - Stops the energy production in the cells
 - Severely restricts cellular respiration
 - Excess ammonia can be due to over-consumption of protein-rich meats or because of improper liver function
 - Ammonia in brain and paralyze functional processes; this is how high ammonia levels, for example, lead to sleeplessness
- ✓ Accelerate healing of wounds



Taurine

- ✓ Important precursor of GABA
- ✓ Works well in instances of anxiety and racing mind at night
- ✓ Research indicated sleep enhancement with taurine
- ✓ Animal studies:
Decreases physical activity, indicating a calming effect on the body

