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Nervous Tension

Template by Fullscript

Updated Nov 18th, 2024

Preview **Evidence**

Evidence rating

The following protocols were developed using only **a,b,c**-quality evidence

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Overview

Nervous tension is one of the most prevalent mental health symptoms and may lead to significant impairment in both emotional and physical health. (15) It not only impacts the quality of life of the patient, but evidence shows that it may also increase the risk of all-cause mortality. (15)

The development of nervous tension can be multifactorial and may include commonly known factors such as traumatic experiences, as well as the involvement of inflammatory cytokines, genetic susceptibility, and nutrient deficiencies (1)(8)(15) Addressing the various causes as well as modulating physiological responses to stress may assist in decreasing nervous tension.

The protocol presented below represents research on ingredients showing efficacy ir supporting symptoms of nervous tension.

L-theanine

L-theanine

200-400 mg, once per day, minimum 4 weeks (6)(18)(19)

- Supplementation with L-theanine increased alpha brain wave activity, indicating a potential mechanism for its ability to induce a relaxed but alert state, when compared to placebo and/or caffeine; additionally, L-theanine has been shown to reduce stress-induced blood pressure elevation (19)
- L-theanine supplementation improved self-rated anxiety scores, using the State-Trait Anxiety Inventory (STAI) in participants with no major psychiatric illness, suggesting potential efficacy in the general population (6)
- Systematic review of 9 studies found doses ranging from 200 to 400 mg per day decreased stress and anxiety when people were exposed to stressful conditions (18)
- When administering L-theanine in conjunction with current medications, anxiety improved as shown by decreases in Hamilton Depression Rating Scale (HAMD-21), Pittsburgh Sleep Quality Index (PSQI), and STAI anxiety scores, as well as improved cognitive function in patients with major depressive disorder (7)

Magnesium

Magnesium

300 mg, once per day, minimum 8 weeks (14)

- Systematic review of 18 studies found subjective anxiety to improve from magnesium supplementation; stress exposure has been shown to increase renal excretion of magnesium, and magnesium may act as a modulator for the HPA axis by reducing adrenocorticotropic hormone (ACTH) and cortisol (1)
- In participants with both anxiety and low serum magnesium, supplementation led to a reduction in scores on the Depression Anxiety Stress Scales (DASS-42) after four weeks (14)
- Depression and anxiety improved, as demonstrated by a net decrease of 6 points on PHQ-9 and 4.5 points on GAD-7 scores (16)

Vitamin D

Vitamin D

1000-10,000 IU daily (13)

Note: Additional evidence below supports dosing 50,000 IU vitamin D3, once per one or two weeks, minimum 12 weeks (4)(5)

- An increase in serum serotonin levels and a decrease in serum neopterin levels were shown in the study group treated with vitamin D (50,000 IU once per week for three months), in addition to standard of care (SOC), compared to a group receiving only SOC; additionally, the vitamin D treated participants also saw a decrease in Generalized Anxiety Disorder (GAD) scores, while no changes were seen in the SOC group (4)
- In women with type 2 diabetes, vitamin D supplementation (50,000 IU every two weeks for 16 weeks) decreased anxiety levels from moderate to mild on the Depression, Anxiety and Stress Scales (DASS- 21) questionnaire; additionally, supplementation was shown to reduce hs-CRP levels and increase IL-10 concentrations (5)
- Supplementation was found to improve anxiety and depression scores in all doses, while high dose (10,000 IU daily) improved serum vitamin D, and decreased clinical relapse in patients with Crohn's disease with remission (13)

Ashwagandha

Ashwagandha (*Withania somnifera*)

240-600 mg, total per day of standardized extract containing between 35% and 1.5% of withanolides, respectively, for a minimum 8 weeks (2)(3)(11)

- A statistically significant reduction in Hamilton-Anxiety Rating Scale (HAM-A) scores and morning cortisol levels was demonstrated with the use of ashwagandha (11)
- One proposed mechanism of action was the moderating effect of ashwagandha on the hypothalamic-pituitary-adrenal axis (HPA axis) response to stressors; however, further investigation was suggested (11)
- One study assessed the intervention of psychotherapy treatment (PT) alone versus naturopathic treatments (including the use of ashwagandha as well as dietary counseling, breathing techniques for relaxation, and a multivitamin); symptoms, including anxiety as rated with the Beck Anxiety Inventory, social functioning, overall quality of life, fatigue, and concentration showed further improvement in the naturopathic treatment group compared to the group receiving only psychotherapy (3)
- Ashwagandha was shown to reduce serum cortisol levels from baseline levels which was correlated with a reduction in scores on stress assessment scales in patients with a history of chronic stress (2)

Probiotics

Probiotics

10 billion CFU daily (e.g., *Lactobacillus plantarum* P8, although other strains may be effective as well) for a minimum of 4 weeks (9)

- Meta-analysis and systematic review of 34 controlled clinical trials found probiotics to significantly improve depression and anxiety (10)
- Stressed adults experienced reduced pro-inflammatory cytokine levels (IFN-γ and TNF-α) and stress/anxiety scores when supplemented with *Lactobacillus plantarum* P8 in a dose of 10 log CFU per day (9)
- Improved overall anxiety (panic anxiety, neurophysiological anxiety, negative affect, and worry) and negative mood regulation in healthy young adults; additionally, dose (CFU) was found to positively impact outcomes more than species (17)
- Systematic review and meta-analysis of 7 studies found probiotic supplementation improved psychological symptoms including depression, anxiety, and perceived stress in healthy volunteers (12)

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