Sleep, Stress & Mood Solutions

L. gasseri CP2305 Postbiotic



A Holistic Approach to Sleep, Stress & Mood

Sleep and stress play a critical role in shaping physical and mental health. The consequences of inadequate sleep and elevated stress levels are far-reaching, impacting numerous aspects of daily functioning and overall well-being for consumers across the globe.

Adequate and restorative sleep is linked to healthy immune function response, efficient stress management and improved cognitive function. Emerging science has shown that the gut-brain axis may be capable of influencing the sleep-wake cycle, impacting duration and quality of sleep[2]—highlighting a potential link between restorative sleep and emotional well-being.

40% **of consumers globally say their main mental health concerns are stress & anxiety.[1]**

50–60% **of individuals worldwide suffer from issues falling asleep and/or staying asleep.[4]**

58% **of global consumers say they are actively looking to sleep well.[5]**

A Cutting-Edge Postbiotic

L. gasseri CP2305 Postbiotic is a premier ingredient from ADM's line of microbiome solutions. Backed by eight human clinical trials, *L. gasseri* CP2305 Postbiotic supports **sleep**, **stress and mood**—enabling users to experience improved emotional well-being, reduced stress and a restful night's sleep.[2,3]

Science-Backed Stress & Mood Support

Clinical studies show that 20mg of *L. gasseri* CP2305 Postbiotic daily may support:[2,3]

- Emotional well-being
- Reduced stress
- Improvement in self-reported assessments of mental well-being

The Science Behind *L. gasseri* CP2305 Postbiotic

With *L. gasseri* CP2305 Postbiotic, ADM brings to the market a cutting-edge ingredient that offers unmatched formulation stability for dietary supplements, functional foods and powdered beverages. This strain leverages the potential of the gut-brain axis by modulating the gut microbiome, positioning it as one of the most versatile and well-documented ingredients for mental and emotional wellness.

COMPOSITION
Lactobacillus gasseri
CP2305 Postbiotic

CONCENTRATION
500B CFU equiv./g
100B CFU equiv./g

DAILY DOSE
20mg per day

CLINICAL STUDIES
8

CERTIFICATIONS
Non-GMO
Gluten free
Halal certified

APPLICATIONS
Dietary Supplements
Functional Foods
Powdered Beverages

Science-Backed Sleep Support

Exploratory research, based on 2-arm, randomized, double-blind, placebo-controlled studies, suggests that supplementing diet with 20mg of *L. gasseri* CP2305 Postbiotic daily may support[2,3]:

- Better sleep efficiency
- Reduced time to fall asleep/reduced sleep latency
- Overall sleep quality
- Improved total duration of sleep
- Significant improvement in self-reported assessments of mental well-being



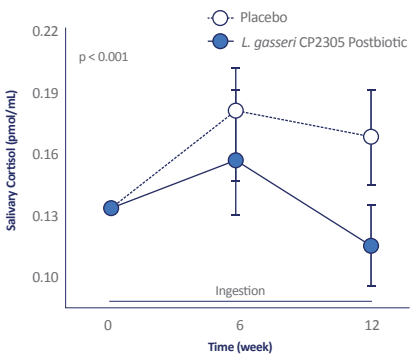
Targeting Sleep, Stress & Mood Through the Gut-Brain Axis

REDUCED BIOLOGICAL STRESS RESPONSE

In a 12-week study of healthy medical students (40 male, 29 female) preparing for national exams, *L. gasseri* CP2305 Postbiotic significantly improved stress levels and physiological stress markers*.

- Improvement in anxiety (STAI-State; p=0.035)** and stress (GHQ-28; p=0.047) among women***
- Significantly lower stress-induced rise in basal salivary cortisol release compared to placebo, indicating a reduced biological stress response at both 6 and 12 weeks (p<0.05; p<0.001, respectively)*****

Reduced Biological Stress Response



During chronic academic stress, participants in the Postbiotic group showed a significantly lower stress-induced rise in cortisol compared with placebo (p<0.001), indicating a reduced biological stress response.

Nishida et al., 2017 Journal of Functional Foods 36:112–121

*2-arm, randomized, double-blind, placebo-controlled trial *L. gasseri* CP2305 Postbiotic 20mg/day in fermented milk

**State-Trait Anxiety Inventory (STAI) scores are a self-reported measure of a person's long-term tendency to experience anxiety.

***GHQ-28, or the General Health Questionnaire-28, is a self-report screening tool used to identify possible psychiatric disorders and assess psychological well-being by asking respondents to compare their current state to their usual state.

*****Salivary Cortisol Concentration is a well-established biological marker of the body's physiological response to stress.

REDUCED SLEEP DISTURBANCES AND IMPROVED MOOD

In a 24-week study of healthy medical students (41 male, 19 female) preparing for national exams, *L. gasseri* CP2305 Postbiotic improved mood and sleep disturbances during chronic stress.

- Significant reduction (p=0.014) in STAI-Trait scores** in comparison to placebo during chronic stress
- Reduced sleep disturbance (PSQI global score; p=0.041)****

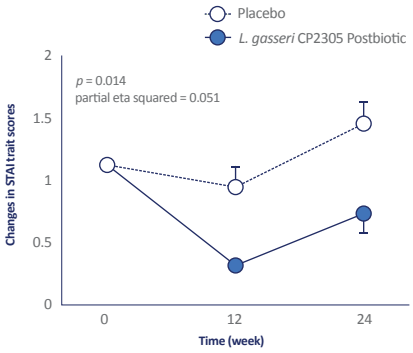
Nishida et al., 2019 Nutrients 11:1859

*2-arm, randomized, double-blind, placebo-controlled trial heat-treated *L. gasseri* CP2305 Postbiotic tablets 20mg/day

**State-Trait Anxiety Inventory (STAI) scores are a self-reported measure of a person's long-term tendency to experience anxiety.

****Pittsburgh Sleep Quality Index (PSQI) is a self-rated questionnaire which assesses sleep quality and disturbances over a 1-month time interval.

Reduced STAI During Chronic Stress



During chronic stress, participants in the *L. gasseri* CP2305 Postbiotic group showed a significant reduction (p=0.014) in STAI-trait scores in comparison to placebo.

IMPROVED SLEEP QUALITY

In a 12-week study of medical students (40 male, 29 female) under exam stress, *L. gasseri* CP2305 Postbiotic significantly improved sleep quality and duration*.

- Preserved perceived sleep quality vs. placebo during stress period (PSQI; p=0.033)****
- Improved sleep duration vs. placebo (PSQI; p=0.029)****
- Sustained assessment over time, with measurements at baseline, 6 weeks and 12 weeks (before and after exam)

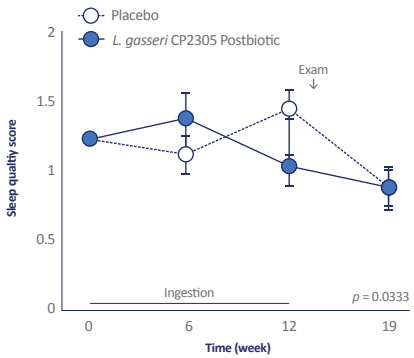
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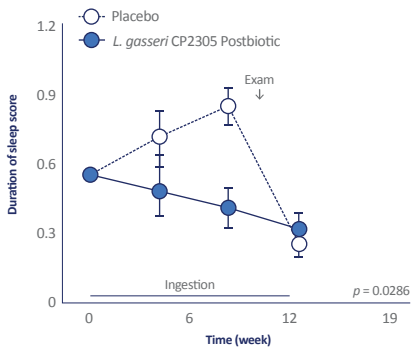
****Pittsburgh Sleep Quality Index (PSQI) is a self-rated questionnaire which assesses sleep quality and disturbances over a 1-month time interval.

Significantly Preserved Perceived Sleep Quality



L. gasseri CP2305 Postbiotic significantly preserved perceived sleep quality vs. placebo (p=0.0333) during stress period (assessed using the PSQI questionnaire).

Significantly Prevented Stress-Related Reductions in Sleep Duration



L. gasseri CP2305 Postbiotic significantly improved stress-related reductions in sleep duration vs. placebo (p=0.0286) (assessed using the PSQI questionnaire).

Positive results of *L. gasseri* CP2305 Postbiotic were based on self-reporting, but also supported by objective sleep measurements using electroencephalography (EEG) for key markers such as sleep latency, sleep continuity and deep (slow-wave) sleep.[6] Overall, *L. gasseri* CP2305 Postbiotic helped support better sleep when stress levels were highest.

From Lab to Life: ADM Microbiome Solutions

ADM drives innovation. From the science behind the ingredients to real-world applications in food, beverage and dietary supplements, ADM delivers future-forward nutrition fueled by science, with a complete range of solutions from pre-, pro- and postbiotics to bacteriophages and enzymes, all clinically documented to deliver health & wellness benefits.

ADM Delivers for You

ADM maintains an expansive pantry of health & wellness ingredients to deliver science-driven supplements and food & beverage formulations to meet consumers' evolving functional nutrition needs. Our vertically integrated supply chain ensures the reliability and availability of high-quality products while our dependable customer service provides industry-leading solutions to support your success.

SOURCES

1 Innova Trends Survey, Global 2025

2 Nishida K, et al. Nutrients. 2019 Aug 10;11(8):1859

3 Nishida et al., 2017 Journal of Functional Foods 36:112–121

4 Bhaskar S, Family Med Prim Care. 2016 Oct- Dec;5(4):780-784.

5 ADM Global Lifestyle Survey, 2025

6 Buysse et al. (1989) Psychiatry Research 28 (2) : 193-213

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