

# Immune Health Study Enhances Shoden's Whole Body Benefits

New research continues to differentiate Shoden<sup>®</sup> from other ashwagandha extracts



## Shoden<sup>®</sup> Supports Overall Wellness

### Whole Body Benefits

Shoden<sup>®</sup> has been clinically studied to support better:



#### Sleep Habits

- ✓ Shoden<sup>®</sup> improves restorative sleep by 42%<sup>1</sup>
- ✓ Increases quantity of sleep by 36 minutes



#### Stress Levels

- ✓ Shoden<sup>®</sup> reduces feelings of moodiness, anxiety, and stress by 21%<sup>2</sup>
- ✓ Reduces morning cortisol levels by 23%



#### Vitality

- ✓ Shoden<sup>®</sup> can minimize fatigue and improve vigor<sup>3</sup>
- ✓ Increases testosterone levels in men by 14.7%



## Now with New Clinically Researched Immune Health Benefits

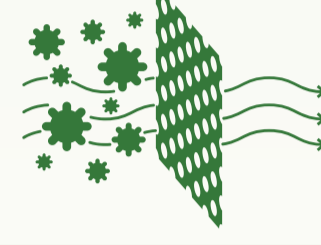
The first known human clinical study to demonstrate immune effects of ashwagandha<sup>4</sup>

Supplementing with Shoden<sup>®</sup> ashwagandha significantly improved the immune profiles of healthy subjects by modulating their innate and adaptive immune systems.



#### Innate immune system:

The immune system we're born with, which includes cytokines, killer cells and more.



#### Adaptive immune system:

Antibodies, cells and processes that are developed over time to eliminate pathogens or prevent their growth.

### Phase 1: Randomized, double-blind, placebo-controlled study

- ✓ Healthy volunteers
- ✓ 30 days
- ✓ Randomized to take 60 mg Shoden<sup>®</sup> or placebo
- ✓ Biochemical immunomodulation markers measured in blood at days 0 and 30



**The findings:** Shoden<sup>®</sup> activated innate and adaptive immune response. Cytokines like INF- $\gamma$  and IL-4, and various T-cells, B-cells, and NK (natural killer) cells were increased. Antibodies were also up.

### Phase 2: Open label crossover study

- ✓ The same healthy volunteers
- ✓ All taking 60 mg Shoden<sup>®</sup> for an additional 30 days (no placebo group)



**The findings:** The cross-over study showed significant improvements in innate and adaptive markers for both groups, confirming the immune supporting benefits of Shoden<sup>®</sup>.



## Low Dose of 60 mg of Shoden<sup>®</sup> = Significant Immune Health Benefits

Shoden<sup>®</sup>: High Bioavailability, Low Dose & Sustainable



## The benefits of modern root and leaf extract



#### Sustainability

Bioactives are extracted from the root and leaves of the ashwagandha plant. All Shoden<sup>®</sup> ashwagandha is grown on family-owned farms in India utilizing eco-friendly practices.

- ✓ Most harvesting is done by hand
- ✓ Minimal water consumption
- ✓ Natural fertilizers and pesticides



#### Less Environmental Impact

Shoden<sup>®</sup> utilizes the benefits of both the roots and leaves to have less environmental impact.

- ✓ The ashwagandha plant is 10-15% roots and 50-60% leaves by weight
- ✓ Both the roots and leaves deliver valuable withanolides
- ✓ The leaves often go to waste - sacrificing valuable bioactives
- ✓ The ashwagandha plant remnants are often burned after harvest, contributing to dangerous smog levels



#### Modern Extraction Technology

Superior two-step extraction process combines traditional Ayurveda with modern technology.

- ✓ Uses only purified water and food-grade ethanol
- ✓ Enhances potency of bioactives
- ✓ Leverages full power of the plant for a modern approach to ashwagandha

- ✓ GRAS (Generally Recognized As Safe)



#### High Bioavailability

Broader range and higher potency of bioactives.

- ✓ Industry-leading 35% withanolide glycosides
- ✓ Over 21 diverse withanolide glycosides, thanks to root and leaf processing
  - Measured by HPLC (high performance liquid chromatography)
- ✓ Significant levels of withanolides remain in the blood even after 24 hours

### Flexible Formulation

May be used as a stand-alone ingredient or in combination, for supplements targeting:



Sleep improvement



Stress and anxiety



Immune health



Cognitive support



Sports nutrition

### Cost Effective

High withanolide content = low dose options of 60-120 mg.



KOSHER



HALAL



NON-GMO PROJECT VERIFIED



GRAS



VEGAN



100% ALLERGEN FREE

Shoden<sup>®</sup> Traditional Use + Modern Technology = The World's Most Bioactive Ashwagandha<sup>™</sup>

Learn More about [Shoden<sup>®</sup>](#)



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Shoden<sup>®</sup> is part of an exclusive portfolio of proprietary ingredients from NutriScience Innovations, LLC, and is a registered trademark of Arjuna Natural Pvt.Ltd

#### References:

1. Deshpande A et al. "A randomized, double blind, placebo controlled study to evaluate the effects of ashwagandha (Withania somnifera) extract on sleep quality in healthy adults." Sleep Medicine. 2020; 72: 28-36.
2. Lopresti AL et al. "An investigation into the stress-relieving and pharmacological actions of an ashwagandha (Withania somnifera) extract: A randomized, double-blind, placebo-controlled study." Medicine (Baltimore). 2019 Sep; 98(37): 2019;13(2). doi: 10.1177/1557988319835985.
3. Adrian L Lopresti, et al. "A Randomized, Double-Blind, Placebo-Controlled, Crossover Study Examining the Hormonal and Vitality Effects of Ashwagandha (Withania somnifera) in Aging, Overweight Males." J Mens Health. Mar-Apr 2019;13(2). doi: 10.1177/1557988319835985.
4. Tharakan A et al. "Immunomodulatory Effect of Withania somnifera (Ashwagandha) Extract—A Randomized, Double-Blind, Placebo Controlled Trial with an Open Label Extension on Healthy Participants." JCM. 2021; 10(16):3644.