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Shohani Save Guard (SSG): Dietary Supplement to Support Drug Addiction Treatment

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Abstract

Shohani Save Guard (SSG) is a scientifically formulated dietary supplement designed to aid in the recovery from drug addiction, particularly methamphetamine addiction. This study explores the biochemical and biological mechanisms through which SSG's natural ingredients, including KSM-66, Panax Ginseng, Bacopa Monnieri, Green Tea, Curcumin, and other essential vitamins and minerals, work synergistically to promote recovery. The paper also reviews recent studies supporting the efficacy of these ingredients and highlights their roles in reducing addiction symptoms and improving overall health.

Keywords: Shohani Save Guard, Biological treatment, Methamphetamine addiction, Dietary supplement, Natural components, Nervous system support, Immune system support

1. Introduction

Methamphetamine addiction presents significant challenges due to its profound effects on the central nervous system, leading to severe psychological and physiological damage. Traditional treatment methods often come with substantial side effects and varying efficacy. Shohani Save Guard (SSG) offers a natural alternative, combining several potent ingredients known for their therapeutic properties. This paper details the individual components of SSG, their biochemical actions, and how they collectively contribute to addiction recovery.

1.1. Literature review

Factors leading to addiction include genetic predisposition, age, gender, stress, obesity, and bacterial infections. Stress plays a significant role in exacerbating the condition, associated with increased cortisol levels, sleep disturbances, and weakened immunity. Obesity is strongly linked to the onset and

exacerbation of addiction, and bacterial infections contribute to the appearance of lesions associated with it. Addiction ingredients and their mechanisms (Fig. 1; Table 1):

1. KSM-66 Ashwagandha

Mechanisms:

- **Stress Reduction:** KSM-66 has been shown to reduce cortisol levels, which are often elevated in individuals with addiction, thereby decreasing stress and anxiety (Chandrasekhar *et al.*, 2012; Wongtrakul *et al.*, 2021).
- **Neuroprotection:** Ashwagandha enhances dendritic growth and synaptic connectivity, which can counteract the neural damage caused by methamphetamine (Singh *et al.*, 2011; Wongtrakul *et al.*, 2021).
- **Immune Support:** It boosts immune function, helping the body to recover from the immunosuppressive effects of drug use (Chandrasekhar *et al.*, 2012; Park *et al.*, 2023).

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Fig. 1. SHOHANI SAVE GUARD (SSG) ingredients.

Table 1. Summary of supplements and their roles in addiction recovery.

Compound/Nutrient	Mechanisms	Effects	References
KSM-66 Ashwagandha	Reduces cortisol, enhances dendritic growth, boosts immune function	Stress reduction, neuroprotection, immune support	Chandrasekhar <i>et al.</i> , 2012; Wongtrakul <i>et al.</i> , 2021
Panax Ginseng	Modulates neurotransmitters, antioxidant properties, immunomodulation	Cognitive enhancement, antioxidant protection, immune balance	Reay <i>et al.</i> , 2006; Attele <i>et al.</i> , 1999; Scaglione & Cattaneo, 1996
Bacopa Monnieri	Enhances synaptic communication, regulates serotonin, scavenges free radicals	Cognitive enhancement, anxiolytic effects, antioxidant action	Stough <i>et al.</i> , 2001; Russo & Borrelli, 2005; Calabrese <i>et al.</i> , 2008
Green Tea Extract (EGCG)	Inhibits oxidative stress, interacts with CNS, supports metabolism	Neuroprotection, mood enhancement, metabolic support	Weinreb <i>et al.</i> , 2004; Bryans <i>et al.</i> , 2007; Berk <i>et al.</i> , 2013
Curcumin	Inhibits NF-kB, scavenges free radicals, promotes neurogenesis	Anti-inflammatory, antioxidant, neurogenesis	Aggarwal <i>et al.</i> , 2007; Cole <i>et al.</i> , 2007; Chainani-Wu, 2003
Lion's Mane Mushroom	Stimulates NGF production, promotes neuroplasticity	Neurogenesis, cognitive enhancement	Mori <i>et al.</i> , 2009; Wong <i>et al.</i> , 2013
Niacin (Vitamin B3)	Produces NAD+, enhances DNA repair, reduces oxidative stress	Energy production, neuroprotection	Hoffer & Osmond, 1957; Myslobodsky & Horesh, 1985
Vitamins B6 and B12	Synthesizes neurotransmitters, supports myelin formation	Neurotransmitter synthesis, myelin formation	Kennedy, 2016; Smith <i>et al.</i> , 2010
Selenium and Zinc	Antioxidant defense, supports immune function	Antioxidant protection, immune support	Rayman, 2012; Prasad, 2008
Bioperine	Enhances nutrient bioavailability	Improved absorption of active compounds	Badmaev <i>et al.</i> , 2000

2. Panax ginseng

Mechanisms:

- Energy and Cognitive Function: Ginsenosides, the active compounds in ginseng, enhance cognitive performance and reduce fatigue by

modulating neurotransmitter activity (Reay *et al.*, 2006; Li *et al.*, 2023).

- Antioxidant Properties: Ginseng contains powerful antioxidants that protect neural cells from oxidative stress (Attele *et al.*, 1999; Park *et al.* 2021).

- Immune Modulation: Ginseng has immunomodulatory effects, which help restore the immune system balance disrupted by drug abuse (Scaglione & Cattaneo 1996).

3. *Bacopa monnieri*

Mechanisms:

- Cognitive Enhancement: Bacopa Monnieri improves memory and cognitive function by enhancing synaptic communication and dendritic growth (Stough *et al.*, 2001; Walker & Pellegrini, 2024).
- Anxiolytic Effects: It reduces anxiety by regulating neurotransmitter levels, particularly serotonin (Russo & Borrelli, 2005).
- Antioxidant Action: Bacopa provides neuroprotection by scavenging free radicals and reducing oxidative stress (Calabrese *et al.* 2008).

4. Green Tea Extract (EGCG)

Mechanisms:

- Neuroprotection: EGCG, the active compound in green tea, protects neurons from damage by inhibiting oxidative stress and inflammation (Weinreb *et al.*, 2004; Zhao *et al.*, 2022).
- Mood Enhancement: Green tea catechins enhance mood and reduce stress through their interaction with the central nervous system (Bryans *et al.*, 2007).
- Metabolic Support: It supports metabolic health, which is often compromised in individuals recovering from addiction (Berk *et al.*, 2013; Zhao *et al.*, 2022).

5. Curcumin (*Curcuma longa*)

Mechanisms:

- Anti-inflammatory: Curcumin reduces inflammation by inhibiting NF-kB signaling pathways, which are often upregulated in addiction (Aggarwal *et al.*, 2007; Kotha & Luthria, 2019).
- Antioxidant: It scavenges free radicals, protecting cells from oxidative stress (Cole *et al.*, 2007).
- Neurogenesis: Curcumin promotes neurogenesis and synaptic plasticity, aiding in brain repair (Chainani-Wu, 2003; Kotha & Luthria, 2019).

6. Lion's Mane Mushroom (*Hericium erinaceus*)

Mechanisms:

- Neurogenesis: Lion's Mane stimulates the production of Nerve Growth Factor (NGF), crucial for the growth and maintenance of neurons (Mori *et al.*, 2009).

- Cognitive Function: Enhances cognitive functions, including memory and learning, by promoting neuroplasticity (Wong *et al.*, 2013; Roda *et al.*, 2023).

7. Niacin (Vitamin B3)

Mechanisms:

- Energy Production: Niacin is essential for the production of NAD⁺, a coenzyme involved in cellular energy production (Hoffer & Osmond, 1957; Liu *et al.*, 2022).
- Neuroprotection: It protects neural tissue by enhancing DNA repair and reducing oxidative stress (Myslobodsky & Horesh, 1985; Liu *et al.*, 2022).

8. Vitamins B6 and B12

Mechanisms:

- Neurotransmitter Synthesis: These vitamins are critical for the synthesis of neurotransmitters such as serotonin and dopamine (Kennedy, 2016).
- Myelin Formation: Vitamin B12 is essential for the formation of myelin, which insulates nerve fibers and enhances signal transmission (Smith *et al.*, 2010).

9. Selenium and Zinc

Mechanisms:

- Antioxidant Defense: Both minerals function as antioxidants, protecting cells from oxidative damage (Rayman, 2012).
- Immune Function: They support immune health, crucial for individuals recovering from addiction (Prasad, 2008).

10. Bioperine (Black Pepper Extract)

Mechanisms:

- Enhanced Absorption: Bioperine enhances the bioavailability of various nutrients, ensuring the body efficiently absorbs and utilizes the active components of SSG (Badmaev *et al.*, 2000).

1.2. Essential points to remember

- **Speak with Healthcare Professionals:** It's important to speak with a healthcare provider before beginning any supplement to make sure it's suitable for your particular circumstances and won't interfere with other prescription drugs.
- **Supplement Quality:** To guarantee purity and effectiveness, select premium supplements from reliable suppliers.



Fig. 2. A-KSM-66 Ashwagandha; B-Panax ginseng; C-Bacopa monnieri; D-Green Tea; E-Curcuma longa; F-Hericium erinaceus (Liu et al., 2020; Walker & Pellegrini, 2023; Zhao et al., 2022; Mohd and Wong, Mohd Hisam & Wong, 2024).

- **All-encompassing Care:** Traditional therapies such as counselling and prescribed drugs should be supplemented, not replaced.

2. Integration of ingredients in SSG

SSG leverages the synergistic effects of its natural ingredients to provide a comprehensive approach to addiction recovery. Each component addresses different aspects of addiction, from reducing oxidative stress and inflammation to supporting cognitive function and emotional stability. The combination of these ingredients ensures a multifaceted treatment that promotes holistic recovery.

3. Conclusion

Shohani Save Guard (SSG) represents a promising natural supplement for supporting recovery from drug addiction. Its blend of scientifically backed ingredients offers a potent, multifaceted approach to addressing the complex biochemical and physiological challenges associated with addiction. By reducing inflammation, enhancing cognitive function, and supporting emotional well-being, SSG provides a safe and effective alternative to conventional treatments with fewer side effects.

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