NERVOUSNESS
NEW SCIENCE
NEW SOLUTIONS

Dr. Matthew L. Tripp, PhD
Outline

• Current Science and Research pertaining to Nervousness

• What is it?

• Brain Architecture and Chemistry

• Rationale for Therapeutic Targets

• Summary of Science Surrounding Ingredients

• NSP New Research – Exclusive Formula
Webster

NERVOUSNESS

• Having or showing feelings of being worried and afraid about what might happen

• Often or easily becoming worried and afraid about what might happen

• Highly excitable; unnaturally or acutely uneasy or apprehensive

• Synonyms
  • Antsy, edgy, tense, upset, troubled, worried, anxious
There is little clinical difference between nervousness and anxiety

• Generally, nervousness refers to fearful thoughts with basic physical symptoms

• Nervousness is a natural emotional response to situations in which someone's performance is formally or informally evaluated.
  • An interview
  • A blind date
  • Giving a speech

• Unlike anxiety disorders, nervousness (anxiousness) generally subsides as a person becomes more accustomed to a situation.
There is little clinical difference between nervousness and anxiety

- Excessive nervousness or nervousness about simple tasks is a form of anxiety.

- People who suffer from an anxiety disorder have intense feelings of nervousness, dread, and panic while doing simple, mundane tasks.

- Anxiety disorders develop from a complex set of risk factors such as poor nutrition, life events, drug side effects, and genetics. These all can effect brain chemistry.
Nervousness ends when the scary event is over. You worry and fret over getting that call back about the job, then the call comes through and you feel relieved or disappointed, but you no longer feel nervous.

Situational anxiety is a state of apprehension, discomfort, and anxiety precipitated by the experience of new or changed situations or events. Situational anxiety is not abnormal; it usually disappears as the person adjusts to the new experience.

Anxiety Disorder is when the person feels a sickening sense of dread or terror almost every day. It never goes away—it just attaches itself to something new, or it remains generalized or free floating.
Nervousness or Anxiety?

Anxiety is an unpleasant feelings of dread over something unlikely to happen, such as the feeling of imminent death and is not considered to be a normal reaction to a perceived stressor.

NERVOUSNESS & ANXIETY AFFLICTS GROWING NUMBERS
Anxiety Disorders Association of Canada

“the 12 month prevalence for any anxiety disorder is over 12% and one in four Canadians (25%) will have at least one anxiety disorder in their lifetime”.

Anxiety is the most common mental illness in Canada

Figure 4-1  Hospitalizations for anxiety disorders* in general hospitals per 100,000 by age group, Canada, 1999/2000

* Using most responsible diagnosis only

Source: Centre for Chronic Disease Prevention and Control, Health Canada using data from Hospital Morbidity File, Canadian Institute for Health Information
What Causes Nervousness & Anxiety?

Mechanisms – Low Serotonin Signaling

- Amygdala (MRI activity)
  - Anxiety disorders, psychological disorders, social phobias, long term memory, emotional learning, fear conditioning

- Specifically, the left amygdala has been linked to social anxiety, obsessive and compulsive disorders, and post traumatic stress, as well as more broadly to separation and general anxiety

- Use of serotonin reuptake inhibitors (SSRI; antidepressants) associated with increased size of the Amygdala

- **Serotonin is associated with a feeling of well being and happiness**
- **Low serotonin (5-hydroxytryptamine, 5-HT) levels associated with**
  - Abnormal emotion
  - Hyperreactivity to stimuli
  - Nervousness & Anxiety
Molecular Targets of Anxiety: From Membrane to Nucleus

Long-Jun Wu · Susan S. Kim · Min Zhuo

Simplified diagram of neural circuitry for anxiety

• Threatening stimuli detected by thalamus, hippocampus and cortex.
• Information transmitted to the amygdala, relayed and integrated in different nuclei.
• The output is then transmitted from the amygdala to brain areas, such as cortex/striatum, hypothalamus, and brainstem, initiating fear/anxiety responses.
• LA, lateral amygdala; BLA, basolateral amygdala; CeM, central amygdala
Serothonin

Microanatomy

Serothonin is released into the space between neurons, and diffuses over a relatively wide gap (>20 µm) to activate 5-HT receptors located on the dendrites, cell bodies and presynaptic terminals of adjacent neurons.
Mechanisms of Nervousness & Anxiety

*Phosphodiesterase 4*  
\[ \uparrow \]

*and*

*cAMP*  
\[ \downarrow \]
Humans with Major Depressive Disorder (MDD) have higher levels of PDE4

Pharmacol Biochem Behav. 2011 May;98(3):349
Phosphodiesterase 4 Inhibitors & Memory

Does forgetfulness make you nervous? Anxious?
Selective phosphodiesterase (PDE)-4 inhibitors: a novel approach to treating memory deficit?

Ghavami A, Hirst WD, Novak TJ.

• Several lines of evidence indicate that targeting PDE4 with selective inhibitors may offer novel strategies in the treatment of age-related memory impairment and Alzheimer's disease.

• Preclinical studies indicate that PDE4 inhibitors can counteract deficits in long-term memory caused by pharmacological agents, aging or overexpression of mutant forms of human amyloid precursor proteins.

• Targeting PDE4 with selective inhibitors may offer a novel therapy aimed at slowing progression, prevention and, eventually, therapy of Alzheimer's disease.
Millions of people regularly obtain insufficient sleep.

One of the major effects of sleep deprivation on the brain is to produce memory deficits.

**Studied Molecular Mechanisms**

**KTAs**

1. Sleep deprivation selectively impairs cAMP and protein kinase A (PKA) signaling.
2. Sleep deprivation increases the levels of phosphodiesterase 4 (PDE4).
Sleep deprivation increases PDE4 activity and gene expression in the hippocampus

(a) PDE4 activity was significantly upregulated in hippocampi from SD mice compared with NSD mice (p=0.039). (b) The PDE4 isoform PDE4A5 was significantly upregulated by sleep deprivation in the hippocampus (p=0.033). A sample blot is shown, with the nearest size markers indicated with arrows.
The PDE4 inhibitor rolipram rescues LTP and memory deficits caused by sleep deprivation
(a) Rolipram (ROL) treatment rescued deficits in spaced 4-train LTP due to sleep deprivation (p=0.003). (b) However, rolipram showed no further enhancement of spaced 4-train LTP in NSD mice (p=1.0). The black bar in (a) and (b) represents the time of ROL treatment. (c) Sleep deprivation significantly impaired context-specific memory (p=0.02), and treatment with rolipram rescued this deficit (p=0.0009) without affecting memory in non-sleep-deprived mice (p=0.99).

Sleep deprivation impairs cAMP signaling in the hippocampus
Phosphodiesterase Inhibitors

SSRI

Sensitizing stimulus

Motor neuron

Interneuron

Adenylyl cyclase

ATP

GSK3

GSK3

Protein Kinase A (active)

Protein Kinase A (inactive)
These findings demonstrate that brief sleep deprivation disrupts hippocampal function by interfering with cAMP signalling through increased PDE4 activity.

- Molecules that enhance cAMP signalling may provide a new therapeutic approach to counteract the cognitive effects of sleep deprivation.

Natural Molecules?
There is a Great Need for New, Safe, Anti-Anxiety Therapeutics without Side Effects

Natural Nutritional Support for Situational Nervousness

- Sceletium tortuosum
- L-Theanine
- Thiamine
- Magnesium
- Zinc
L-Theanine

- Theanine is a non-protein amino acid and a glutamic acid analog
- Discovered in green tea in 1949
- GRAS in US
- Umami flavor
- Blocks the binding of glutamate to the glutamate receptor in the brain
- Improves eNOS activity, nitric oxidize formation, and endothelial function (Siamwala et al, 2013)
- Increases alpha waves in the brain – associated with relaxation without causing Drosiness
- Clinically, 50 mg resulted in increased mental awareness while enhancing a state of relaxation (Nobre et al 2008)
- Reduces mental stress and physical stress (Kimua et al Biological Psychology, Jan p 39, 2007)
- Improves memory and cognition (Park et al J Medicinal Food 14 (4):334, 2011)
**BACKGROUND:** L-theanine is known to block the binding of L-glutamic acid to glutamate receptors in the brain, and has been considered to cause anti-stress effects by inhibiting cortical neuron excitation. Both L-theanine and caffeine, which green tea contains, have been highlighted for their beneficial effects on cognition and mood.

**METHODS:** We investigated the effects of orally administered L-theanine or caffeine on mental task performance and physiological activities under conditions of physical or psychological stress in humans.

**RESULTS:** The results after the mental tasks showed that L-theanine significantly inhibited the blood-pressure increases in a high-response group, which consisted of participants whose blood pressure increased more than average by a performance of a mental task after placebo intake.

The result of the Profile of Mood States after the mental tasks also showed that L-theanine reduced the Tension-Anxiety scores as compared with placebo intake.

**KTA:** L-theanine not only reduces anxiety but also attenuates the blood-pressure increase in high-stress-response adults.
systolic blood pressure changes in high response group
(average ± SE. n=7)

Six identifiable mood or affective states can be measured and were used for analysis in this study: Tension-Anxiety (T-A), Depression-Dejection (D), Anger-Hostility (A-H), Vigor-Activity (V), Fatigue-Inertia (F), and Confusion-Bewilderment (C).

   “In conclusion, poorer thiamine nutritional status and higher odds of depressive symptoms were associated among older Chinese adults.”

   “RESULTS: After adjustments for energy intake, each standard deviation increase in the intake of zinc, magnesium and folate was associated with reduced odds ratio (OR) for major depression. There was also an inverse association between the intake of magnesium and zinc and GHQ-12 scores”

   “The purpose of the present study was to examine the relationship between dietary intake of zinc and depression in postgraduate students. This study was conducted on 402 participants with a mean age of 32.54 ± 6.22 years, including 173 (43%) women and 229 (57%) men. In this study, we found an inverse relationship between dietary intake of zinc and depression.” “The results of this study show that long-term intake of zinc may modulate symptoms of depression.”

   The results of the study demonstrated an inverse relationship between magnesium intake and depressive symptoms
Antidepressant activity of zinc and magnesium in view of the current hypotheses of antidepressant action.


Source
Department of Neurobiology, Institute of Pharmacology, Polish Academy of Sciences, Smetna 12, PL 31-343 Kraków, Poland. szewczyk@if-pan.krakow.pl

- The clinical efficacy of current antidepressant therapies is unsatisfactory; antidepressants induce a variety of unwanted effects.
- Thus, a search for better and safer agents is continuously in progress.
- Recently, studies have demonstrated that zinc and magnesium possess antidepressant properties.
- Further, Zn and Mg have been found to enhance the activity of conventional antidepressants:
  - Zinc demonstrates activity in the olfactory bulbectomy, chronic mild and chronic unpredictable stress models.
  - Magnesium is active in stress-induced depression-like behavior models.
- Clinical studies demonstrate that the efficacy of pharmacotherapy is enhanced by supplementation with zinc and magnesium.
Effects of zinc supplementation on efficacy of antidepressant therapy, inflammatory cytokines, and brain-derived neurotrophic factor in patients with major depression.

Ranjbar E, Shams J, Sabetkasaei M, M-Shirazi M, Rashidkhani B, Mostafavi A, Bornak E, Nasrollahzadeh J.

OBJECTIVE:
• Determine the effect of zinc supplementation on efficacy of antidepressant therapy.

DESIGN:
• Single-center, randomized, double-blind, placebo-controlled trial of zinc supplementation was conducted in patients with DSM-IV major depression.
• 44 patients of both sexes aged 18-55 years
• Zinc-supplemented group received zinc orally in addition to their selective serotonin reuptake inhibitor antidepressants for 12 weeks.
• Symptoms were evaluated using the Hamilton Depression Rating Scale (HDRS) on arrival, weeks 6 and 12.

RESULTS:
Zinc supplementation significantly reduced HDRS compared to placebo (P < 0.01 at 12th week)

Sceletium Tortuosum
MOA: SERATONIN AND PDE4
It is probable that plants of the genus Sceletium (Mesembryanthemaceae) have been used as masticatories and for the relief of thirst and hunger, to combat fatigue, as medicines, and for social and spiritual purposes by San hunter-gatherers (historically referred to as Bushmen) and Khoi pastoralists (historically referred to as Hottentots) for millennia before the earliest written reports of the uses of these plants by European explorers and settlers. The oral-tradition knowledge of the uses of Sceletium by indigenous peoples has largely been eroded over the last three centuries due to conflicts with settlers, genocidal raids against the San, loss of land, the ravages of introduced diseases, and acculturation. Wild resources of Sceletium have also been severely diminished by over-harvesting, poor veld-management, and possibly also by plant diseases. Sceletium was reviewed almost a decade ago and new results have emerged substantiating some of the traditional uses of one of South Africa’s most coveted botanical assets, and suggesting dietary supplement, phytomedicine and new drug applications. This review aims to collate the fragmented information on past and present uses, the alkaloid chemistry and pharmacological evidence generated on Sceletium.
Fig. 1. Chemical structures of *Sceletium* alkaloids. 1, mesembrine; 2, mesembrone; 3, mesembrenol.
Safety

- Patented, standardized extract is self-affirmed GRAS
- 300 years of documented history of safe use
- Published
  - In vitro safety data
  - In vivo safety data
  - Human clinical safety data

Socially Responsible

- Awarded the Export and Bioprospecting permit by the South African Government in recognition of the producers' Socially Responsible and Environmentally sustainable practices.
Ethnopharmacological relevance: The South African plant Sceletium tortuosum has been known for centuries for a variety of traditional uses, and, more recently, as a possible source of anti-anxiety or anti-depressant effects. A standardised extract Zembrin® was used to test for pharmacological activities that might be relevant to the ethnopharmacological uses, and three of the main alkaloids were also tested.

Materials and methods: A standardised ethanolic extract was prepared from dried plant material, along with the purified alkaloids mesembrine, mesembrenone and mesembrenol. These were tested on a panel of receptors, enzymes and other drug targets, and for cytotoxic effects on mammalian cells.

Results: The extract was a potent blocker in 5-HT transporter binding assays (IC50 4.3 g/ml) and had powerful inhibitory effects on phosphodiesterase 4 (PDE4) (IC50 8.5 g/ml), but not other phosphodiesterases. There were no cytotoxic effects. Mesembrine was the most active alkaloid against the 5-HT transporter (Ki 1.4 nM), while mesembrenone was active against the 5-HT transporter and PDE4 (IC50’s < 1 uM).

Conclusions: The activity of the Sceletium tortuosum extract on the 5-HT transporter and PDE4 may explain the clinical effects of preparations made from this plant. The activities relate to the presence of alkaloids, particularly mesembrine and mesembrenone.
Competition curves for the *extract Sceletium tortuosum* against the selected target sites. Filled square, 5-HT transporter; filled upward triangle, GABA-A receptors; filled downward triangle, -opioid receptors; filled diamond, 2 opioid receptors; filled circle, EP4 receptors; open square, MT1 melatonin receptors; open upward triangle, CCK1 cholecystokinin receptors; open downward triangle, GABA-B receptors.
## Sceletium tortuosum Extract Response Curves

<table>
<thead>
<tr>
<th>Assay</th>
<th>IC$_{50}$ (µg/ml)</th>
<th>Hill coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-HT transporter</td>
<td>4.3</td>
<td>1.1</td>
</tr>
<tr>
<td>GABA-A</td>
<td>148</td>
<td>0.9</td>
</tr>
<tr>
<td>µ-Opioid</td>
<td>213</td>
<td>1.0</td>
</tr>
<tr>
<td>δ$_2$-Opioid</td>
<td>236</td>
<td>0.9</td>
</tr>
<tr>
<td>EP4</td>
<td>293</td>
<td>1.0</td>
</tr>
<tr>
<td>MT1</td>
<td>536</td>
<td>0.8</td>
</tr>
<tr>
<td>CCK1</td>
<td>676</td>
<td>14.1</td>
</tr>
<tr>
<td>GABA-B</td>
<td>&gt;750</td>
<td>Nd</td>
</tr>
</tbody>
</table>

SSRI
Effects of the extract Sceletium tortuosum (750 ug/ml) on different phosphodiesterases.

Follow-up Study
PDE3 IC₅₀ = 274 ug/mL
PDE4 IC₅₀ = 8.5 ug/mL

In a double-blind, placebo-controlled, cross-over design, 16 healthy participants were scanned during performance in a perceptual-load and an emotion-matching task.

Amygdala reactivity to fearful faces under low perceptual load conditions was attenuated after a single 25 mg dose.

Follow-up connectivity analysis on the emotion-matching task showed that amygdala-hypothalamus coupling was also reduced.

These results demonstrate, for the first time, the attenuating effects of S. tortuosum on the threat circuitry of the human brain and provide supporting evidence that the dual 5-HT reuptake inhibition and PDE4 inhibition of this extract might have anxiolytic potential by attenuating subcortical threat.
The effect of extract Sceletium tortuosum targeting Phosphodiesterase subtype-4 (PDE-4), on cognitive function: a proof-of-concept randomized double-blind, single site, placebo-controlled cross-over study in healthy adults

Abstract

Objective:
- Evaluate the efficacy of extract Sceletium tortuosum in enhancing cognition as determined using the CNS VitalSigns® battery of tests
- Co-primary objective was to evaluate the safety and tolerability of the extract
- Secondary objective was to evaluate any affect changes using the Hamilton Rating Scale for Depression (HAM-D).

Design and Method:
- Randomized double-blind placebo-controlled cross-over, single centre.
- Normal subjects n = 21.
- Randomized to receive either a capsule containing 25 mg of extract Sceletium tortuosum, or an identical looking placebo, once daily for 3 weeks. Following a three week washout period with no active or placebo administration, the subjects were switched over to the respective placebo or active groups for a further 3 weeks.

Results:
- 21 subjects recruited - 20 completed the study
- Daily oral dosing of 25mg of extract Sceletium tortuosum significantly improved two cognitive function domains: cognitive set flexibility (p < 0.032) executive function (p < 0.022).
- Extract Sceletium tortuosum was well tolerated with no nausea or vomiting, and only infrequent mild side effects.

Conclusion: Sceletium tortuosum improving cognitive flexibility and executive function provides supporting evidence for PDE-4 inhibition as a mechanism of action of the extract, and suggests that the extract itself, or active compounds within the extract may have therapeutic potential in cognitive aging.
FORMULA SUMMARY

• **Sceletium tortuosum** - alkaloids appear to be responsible for the extract benefits of enhanced mood, improved cognitive function, and stress relief. The two primary mechanisms of action that have been attributed to the alkaloids include selective serotonin reuptake inhibition (SSRI) and an inhibition of phosphodiesterase-4 (PDE-4).

• **L-Theanine** - The elevated mood, improved cognition, decreased stress, and general relaxation are all benefits that can be attributed to elevated gamma-aminobutyric acid (GABA is an inhibitory neurotransmitter) function and GluR antagonistic actions. This action complements those activities that have been described for the Sceletium extract.

• **Magnesium and Zinc** - essential to nerve function as well as a host of other very important biochemical processes and appears to modulate the receptor for the excitatory amino acid glutamate; in combination have been shown to collectively relieve anxiety.

• **Thiamin or Vitamin B1**, also known as thiamine is a cofactor for a variety of enzymes that are essential to carbohydrate metabolism and energy production, particularly in nervous tissue. Thiamine is widely acclaimed to function in synaptic nerve transmission and to have importance to the normal physiology of the nervous system.

  Collectively, these five ingredients hit multiple targets underlying nervousness and anxiousness.
Phosphodiesterase Inhibitors

SSRI

Sensitizing stimulus

Motor neuron

Sensory neuron

interneuron

5-HT receptor

5-HT

Adenylyl cyclase

GSK3

Protein Kinase A (active)

Protein Kinase A (inactive)

GSK3 ACTIVE

GSK3 INACTIVE

ATP

CAMP

G-protein
Sceletium tortuosum is a Protein Kinase Inhibitor
Increased PDE4 Inhibition by Formula 103

S. tortuosum vs Formula 103

Formula 103 was 57% more potent than the same amount of S. tortuosum alone.
Is Nervousness and Anxiousness Associated with Other Conditions?
Are symptoms of anxiety and depression risk factors for hypertension? Longitudinal evidence from the National Health and Nutrition Examination Survey I Epidemiologic Follow-up Study.

OBJECTIVE:
To test the hypothesis that symptoms of anxiety and depression increase the risk of experiencing hypertension, using the National Health and Nutrition Examination I Epidemiologic Follow-up Study.

DESIGN:
A cohort of men and women without evidence of hypertension at baseline were followed up for 7 to 16 years. The association between 2 outcome measures (hypertension and treated hypertension) and baseline anxiety and depression was analyzed.

SETTING: General community.

PARTICIPANTS: A population-based sample of 2992.

MAIN OUTCOME MEASURES:
Incident hypertension was defined as blood pressure of 160/95 mm Hg or more, or prescription of antihypertensive medications. Treated hypertension was defined as prescription of antihypertensive medications.

CONCLUSION:
Anxiety and depression are predictive of later incidence of hypertension and prescription treatment for hypertension.
Prospective Study of Anxiety and Incident Stroke. 
Lambiase MJ, Kubransky LD, Thurston RC.

BACKGROUND AND PURPOSE:

• Higher levels of anxiety are associated with increased risk for coronary heart disease.

• The purpose of this study was to examine the association between anxiety symptoms and incident stroke in a nationally representative longitudinal study of the US population.

Participants: n = 6019

CONCLUSIONS:

• Higher anxiety symptom levels were associated prospectively with increased risk for incident stroke independent of other risk factors, including depression.
There is a Great Need for New Calming Therapeutics without Side Effects

Zerenity™

Natural Nutritional Support for Nervousness

LOST YOUR SERENITY? QUICKLY FEEL LESS NERVOUS AND MORE RELAXED WITH ZERENITY
Zerenity™ - We have a winner!

Survey Summary

• Nearly 90% felt a positive effect
• Over 60% felt a benefit within an hour
• 9 out of 10 would recommend to a friend
Zerenity Formula Results Since Launch

How quickly did you notice a benefit from this product?

- Immediately: 10%
- Within 30 minutes: 45%
- Within 1 hour: 25%
- Within 3 hours: 10%
- Within 12 hours: 5%
- Within several days: 5%
- Did not feel a benefit: 0%

83% felt a benefit within one hour!
Zerenity Formula Results Since Launch

How effective was the product in helping to relieve your anxiety symptoms?

- Very Effective: 70%
- Effective: 20%
- Somewhat Effective: 5%
- Not at all Effective: 5%

All respondents felt some degree of effectiveness!
Zerenity Formula Results Since Launch

How likely are you to purchase this product again?

- Definitely will purchase: 90%
- Probably will purchase: 0%
- Probably will not purchase: 10%
- Definitely will not purchase: 0%
- Undecided: 0%

90% will definitely purchase Zerenity again!
Zerenity Formula Results Since Launch

Would you recommend this product to a friend?

97% would recommend to a friend!
“For over seven years I've been having emotional stress and anxiety after the sudden death of our daughter who'd just delivered her second child. We are raising her children in our fifties. I am stressed and have anxiety on a daily basis. The worst part of my day is when I'm multitasking after school with homework, dinner and evening routine. My ND gave me samples of the Formula 103 and it immediately helped me maintain CALM every afternoon. I'm taking it at lunchtime now for a month now and have noticed good results. I'm not having irritability, feelings of being overwhelmed or losing my temper. This has helped me decompress.”

– Susan H.
What People Are Saying about Our Zerenity Formula

“I was feeling stressed and anxious at work due to deadlines (not enough time to get it done unless I worked late or on weekends, which I did not want to do, because I was feeling burned out). I work as a registered nurse - Director of a home health agency. I took one capsule on several days and realized that after about 30 minutes to one hour I didn’t have that feeling anymore of being overwhelmed.”

– Teresa G.

“When I take this product, within a very short period of time I feel like I am wrapped in a cozy blanket. I am a worrier and this product turns that right off.”

– Lahni D.
What People Are Saying about Our Zerenity Formula

“My story is different. I was a smoker for 45 years. Nothing to be proud of. Never went more than 24 hours without a cigarette. If not for the herbs, I might not still be here. I’ve spent so much money on every gimmick out there to quit but nothing ever worked. I first tried the product on a long airplane ride in which I normally experience anxiety from refraining from cigarettes. This time it didn't bother me. In fact, nothing bothered me. As soon as I returned home, I finished off my carton, resumed taking the PRODUCT (Zerenity formula), and have been a happy non-smoker for almost a month now!”

– Elizabeth H.

“I was an athletic trainer for 15 years and I am using this product with athletes. I am having a few athletes take this before a competitive event. After questioning the athletes, the PRODUCT helps calms the nerves and allows the athlete to focus and perform at their best without any side affects.”

– Kerri M.
Your Questions Answered!
Are there any Contraindications, Interactions or Precautions with Zerenity?
Does Zerenity contain any GMOs, gluten, dairy, corn or allergenic?
Is Zerenity safe for use with children and young adults?
How long does it take Zerenity to start working after taking it?
Does Zerenity cause sleepiness?
Can Zerenity be taken daily?
Is there anyone who should not take Zerenity?
Any recommendations on dosage amounts of Zerenity?
Zerenity™

Nutritional Support for Situational Nervousness

Dr. Matthew L. Tripp, PhD
Chief Scientific Officer
Nature’s Sunshine Products

LOST YOUR SERENITY? QUICKLY FEEL LESS NERVOUS AND MORE RELAXED WITH ZERENITY
The End

Dr. Matthew L. Tripp, PhD