EDUCATIONAL UPDATE

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Sulbutiamina

What Is Sulbutiamine?

Japanese scientists developed sulbutiamine in the 60s while exploring treatments for thiamine deficiency. Some brand names for this compound are Enerion and Arcalion [R].
Sulbutiamine is synthetically produced and is made by binding 2 vitamin B1 molecules together. Sulbutiamine is more fat soluble than thiamine, allowing it to pass to the brain easier (cross the blood-brain barrier) [R].

Sulbutiamine increases thiamine in the brain more than other forms of thiamine [

Mechanism of Action

1) Increases thiamine (& thiamine derivative) levels more than thiamine itself
2) Increases dopamine (D1) and glutamate activity in decision-making regions of the brain (such as the prefrontal cortex)
3) Boosts attention and mood (by changing how glutamate acts on dopamine)
4) Reduces cell death in the brain (by increasing glutathione)
5) Increases energy use in the brain (by increasing thiamine triphosphate)
6) Improves memory formation (by increasing activity in the hippocampus)

Health Benefits of Sulbutiamine

1) Sulbutiamine Boosts Energy:

In a study of 1,772 patients (non-randomised) with infections and chronic fatigue, sulbutiamine (200mg twice a day) for two weeks (along with anti-infective treatment) helped with low energy. Fifty-two percent of the patients felt a significant boost in mood and Energy.

326 patients with chronic fatigue (post-infection) were treated with sulbutiamine and a placebo (DB-RCT). Some individuals felt an energy boost from sulbutiamine, but the results were not significant [R].
Sulbutiamine boosted energy in 341 patients (observational study) with chronic fatigue diagnosed as asthenia (measured with a 44% decrease in their Fatigue Intensity Scores)

Additionally, sulbutiamine treatment (400 mg daily for 1 month) greatly improved symptoms of severe depression, anxiety, and fatigue in most patients (75%) in a study of 40 participants (open-label).
36 patients with chronic fatigue (caused by brain damage) were treated with either piracetam or sulbutiamine. Sulbutiamine was a more effective treatment than piracetam.

2) Sulbutiamine Improves Memory

Sulbutiamine (when used with donepezil) improved memory in a study (DB-RCT) of 26 patients with Alzheimer's Disease.

Sulbutiamine improved long-term memory in rats. This is a result of boosting neurotransmitters (such as choline), which may increase memory retention in humans too.

3) Sulbutiamine Protects Nerves

Nerve damage can be caused by high blood sugar levels in individuals with diabetes. A 6-week treatment of sulbutiamine (400 mg daily) in 15 patients with diabetes (RCT) significantly improved nerve and muscle function (compared to a placebo group).

4) Sulbutiamine Improves Sexual Performance

Sulbutiamine treatment for 30 days restored sexual performance in 16 patients out of 20 (open-label) with erectile dysfunction (caused by psychological issues).

5) Sulbutiamine May Improve Symptoms of Multiple Sclerosis

Fatigue is a major symptom of multiple sclerosis (MS). Sulbutiamine treatment (400 mg daily) for 2 months significantly improved energy levels of 20 MS patients.
An 8-week study (DB-RCT) evaluated the effectiveness of sulbutiamine in the treatment of fatigue in MS. Daily 600 mg doses improved fatigue in patients with fatigue who were on MS drugs

6) Sulbutiamine May Improve Digestion

Some of the first studies on sulbutiamine proved it can help with digestion. In a study with 33 patients (RCT), sulbutiamine restored digestion after kidney surgery in 21 patients. Sulbutiamine also greatly improved gut flow in tissue studies.

7) Sulbutiamine May Protect the Brain

Nutrient-deprived brain cells treated with sulbutiamine lived much longer than cells that weren't treated.
Additionally, sulbutiamine improved the lifespan of brain cells that were deprived of oxygen and sugar. It also increased activity in the memory-forming part of the brain (hippocampus).

8) Sulbutiamine Is An Antioxidant

Sulbutiamine treatment increased the activity of antioxidant enzymes (GSH) in cells and decreased levels of harmful compounds (ROS).

9) Sulbutiamine May Prevent Tissue Damage

A lack of oxygen in tissues may eventually lead to tissue damage (caused by reperfusion). Sulbutiamine protected brain cells from any damage after a period of oxygen deficiency.

Should You Take Sulbutiamine?

You can request that your doctor test your thiamine to see if you should take sulbutiamine. Conventional doctors will look at high or low thiamine levels and not mention anything. Sometimes, a lab result may be in the reference range, but not actually be in the optimal range. Reference ranges are not the same as optimal ranges. This is why even thiamine in the 'normal' range can be unhealthy and indicate that certain processes in the body aren't optimal. Lab Test Analyzer will let you know if your thiamine levels are optimal and what you can do to get them there if they aren't.

Side Effects and Risks

In general, sulbutiamine has few side effects with doses up to 600 mg/day. Side effects are infrequent and include mild skin allergies, mild agitation (in the elderly), and headaches.
Euphoria and sleep pattern disturbance may occur in high doses.
In combination with antibiotics, nausea, headache, insomnia, diarrhea, tremor, and drowsiness were reported by 0.6% of patients.

Limitations and Caveats

1) The majority of the human studies were carried out without control groups.
2) Only a few studies assessed the use of sulbutiamine orally.
3) Some benefits were demonstrated in animal and cell models but lack clinical data.

Drug and Supplement Interactions

Sulbutiamine and acetylcholinesterase inhibitors improve symptoms of early stage and moderate Alzheimer's disease.
It is not advised to use sulbutiamine in conjunction with bipolar disorder medications.
When used with an antidepressant (clomipramine), 600 mg/day of sulbutiamine helped patients with depression recover faster.

Dosage

The standard sulbutiamine dose is 200-600 mg/day. This dosage should be divided into 2 or 3 times a day [R].

Buy in sulbutiamine capsules form

User Experiences

Users report that the effects of sulbutiamine were immediately seen in most cases. Positive mood, focus, and motivation are the main reported benefits. On the other hand, irritability, insomnia, and euphoria are the most cited negative effects. In addition, some people do not feel any different while using sulbutiamine.

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