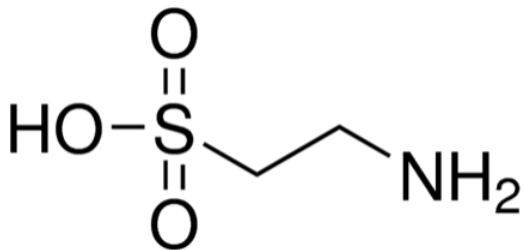


## Taurine 1000 mg

### TECHNICAL SUMMARY

Taurine is a conditionally essential amino acid-like compound that is found in most tissues, but is especially abundant in the retina, heart, and nervous system. Taurine is involved in a number of physiological processes, including bile acid formation for fat digestion, maintenance of fluid balance, and regulation of cellular calcium concentration.\* Taurine crosses the blood-brain barrier and is necessary for proper neurotransmission.\* It is also critical for healthy muscular and cardiovascular function and is essential for normal vision.\*

#### Structure formula:



**Chemical name:** L-Taurine (2-aminoethanesulfonic acid)

**Allergen and Additive Disclosure:** Not manufactured with wheat, gluten, soy, corn, milk, egg, fish, shellfish or tree nut ingredients. Produced in a GMP facility that processes other ingredients containing these allergens.

**Delivery Form:** Vegetable Capsules

### ROLE AS NUTRIENT/FUNCTION

Taurine plays a major role in the synthesis of bile salt from bile acids.\* Bile salts are necessary for emulsification and absorption of lipids and fat-soluble vitamins.\* Taurine also plays significant role in plasma membrane stabilization, osmoregulation, cell proliferation, stimulation of glycolysis and glycogenesis, modulation of calcium flux, neuronal excitability, and detoxification.\* In the retina, it supports visual function, while in the heart, it regulates calcium signaling essential for muscle function.\* In the brain, taurine acts as a neuromodulator and protects against oxidative stress.\* It also helps maintain cell volume and stability in muscles and aids detoxification and bile salt formation in the liver and kidneys.\*

### NATUROKINETICS®

**Liberation:** Dissolution of the vegetable capsule is measured in water using a USP testing method with disintegration between zero and 60 minutes.

**Absorption:** Absorption of Taurine 1000 mg has been studied in a clinical pharmacokinetic trial. Oral administration of 1,000 mg of taurine achieves peak serum concentration ( $T_{max}$ ) in 1 hour upon administration (Figure 1). Taurine is absorbed primarily in the small intestine. The absorption process involves both passive diffusion and active transport mechanisms facilitated by specific transporters such as TauT (Taurine Transporter), which are located on the brush border membrane of the intestinal epithelial cells.

**Distribution:**

## Supplement Facts

Serving Size 1 Veg Capsule

### Amount Per Serving

Taurine (Free-Form)	1 g (1,000 mg)*
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\* Daily Value not established.

Other ingredients: Cellulose (capsule) and Stearic Acid (vegetable source).

- Nervous System Health\*
- Healthy Visual Function\*

**SUGGESTED USAGE:** Take 1 capsule 1 to 2 times daily, or as recommended by your healthcare practitioner.

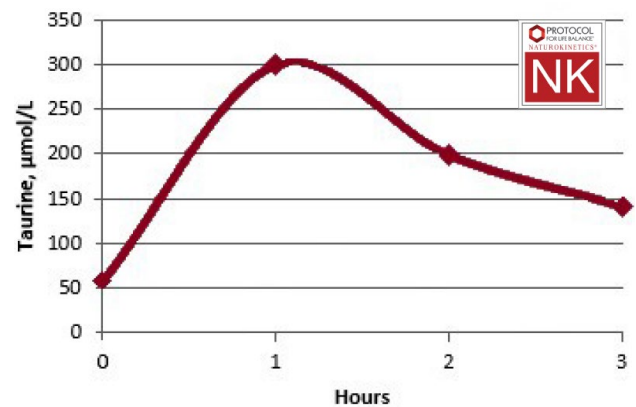


Fig 1. Mean plasma taurine concentration at baseline and 1,2 and 3 hours following single oral administration of 1,000 mg taurine (Taurine Capsules, Protocol For Life Balance®, P0142) in healthy adult volunteers.

Taurine is widely distributed throughout the body, with high concentrations in the retina, heart, central nervous system, muscle tissue, liver, and kidneys.

#### Metabolism:

Taurine may undergo sulfation and, to a lesser extent, deamination.

#### Elimination:

Taurine is primarily excreted through the kidneys in urine. Its elimination rate depends on dietary intake, kidney function, hydration levels, electrolyte balance, and the use of taurine supplements. High dietary intake or supplements can increase excretion, while kidney function and hydration status regulate this process.

### CLINICAL VALIDATION

**Stress and Central Nervous System Function Support.\*** The effect of taurine on markers of visual fatigue was studied in a double-blind, placebo-controlled trial with twenty-five male college students, 20-24 years old, who received taurine at a dosage of 3 g/d or placebo for 12 weeks. The researchers evaluated the pattern visual evoked potential (PVEP) latency

\*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

and amplitude indicative of the neurological function of the visual pathway between the retina and the visual cortex. Results showed that taurine significantly lowered PVEP amplitude from  $33.3 \pm 15.5\%$  before supplementation to  $6.9 \pm 28.4\%$  after 12 weeks which indicates significantly lower visual stress and fatigue as compared to placebo.

### **SAFETY INFORMATION**

#### **Tolerability:**

Taurine supplementation is generally well-tolerated, with studies showing minimal adverse effects even at higher doses. Most clinical trials report that taurine is safe for consumption, with rare mild gastrointestinal disturbances like nausea and diarrhea. Doses up to 3 g per day are considered safe, and long-term use has also shown no significant adverse effects.

#### **Contraindications.**

There is some concern that taurine might exacerbate symptoms of bipolar disorder, particularly mania, especially when consumed in high amount.

### **INTERACTIONS**

**Drug Interactions:** None known.

**Supplement Interactions:** None known.

**Interaction with Lab Tests:** None known.

### **STORAGE**

Store in a cool dry environment in original sealed container.