

# CHOLINE BITARTRATE

*NutriScience Innovations, LLC provides research-based, innovative ingredients for the dietary supplements and functional foods markets. We offer a broad-based portfolio of ingredients to meet your needs.*



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Choline is an essential nutrient that plays a vital role in maintaining the structural integrity of cell membranes. Choline is a precursor to acetylcholine which is an important neurotransmitter involved in memory, muscle control and other essential functions of the body.

#### **FUNCTIONAL BENEFITS:**

##### **Brain Function & Memory**

Choline is a precursor for acetylcholine, which is an important neurotransmitter in the brain associated with memory.

##### **Athletic Performance & Recovery**

Choline serves as a precursor for acetylcholine which is involved in skeletal muscle innervation and muscle control.

##### **Cardiovascular & Liver Health**

Choline is oxidized in the body to form betaine which provides a methyl group for the conversion of homocysteine to methionine.

Choline is a required component of Very Low Density Lipoproteins (VLDL); these lipoproteins help to transport fat and cholesterol away from the liver through the blood to the tissues that require them.

#### **FDA REVIEWED STRUCTURE FUNCTION CLAIMS:**

- May help memory problems associated with aging
- Prenatal use may lead to lifelong improvement of visuospatial memory in children born from the pregnancy
- Supplementation during infancy and childhood may lead to improved lifelong memory
- May reduce fatigue and increase vigor during strenuous exercise
- May help to reduce levels of plasma homocysteine
- May promote healthy liver function

#### **Applications:**

- Food & Beverages
- Infant Formula & Food Dietary Supplements
- Sports Nutrition

#### **Key Benefits:**

- Made with natural L (+) tartaric acid
- Meets USP & FCC Requirements
- Excellent stability in high temperatures
- Available with or without added silica
- Low odor

#### **Regulatory:**

Choline Bitartrate is GRAS (Generally Recognized as Safe) for use in food and beverages.

#### **Nutrient Content Claims:**

Choline Bitartrate contains 40% Choline cation  
(1 gram of Choline Bitartrate contains 0.4 gram of Choline cation)

- Foods containing 55 mg of choline per serving are a "good source" of choline
- Foods containing 110 mg of choline per serving are an "excellent source" of choline

"These statements have not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease."