# **Choline (bitartrate)**

KEY VITAMIN TO SUPPORT HEALTHY METHYLATION, CELL FUNCTION AND NEUROTRANSMISSION, FOR AGES 4 AND UP<sup>‡</sup>

Choline promotes optimal cellular function as a key building block for methylation. It also supports cognitive function and healthy hepatic fat metabolism.

Our highly bioavailable formula provides 275 mg of choline.





Supports cognitive function<sup>‡</sup>





Promotes optimal cellular function<sup>‡</sup>

Formulated for individuals who are not getting adequate choline through their diet.



### **Supplement Facts**

As a dietary supplement, take 1 capsule, 1-2 times daily, with meals.

Serving size: 1 vegetarian capsule Servings per container: 100

Each serving contains:

Choline (as choline bitartrate)

275 mg

Other ingredients: vegetarian capsule (cellulose, water), tri-magnesium citrate

Multivitamins, Vitamins & Minerals





Choline (bitartrate)

Quantity Order Code

100

CLB1

PEOP-CLB1-0422NPNP

## **Choline (bitartrate)**

### Choline is an important nutrient for:

- Individuals who are currently pregnant\*
- Individuals who are post-menopausal
- Patients with low dietary intake
- Patients with polymorphisms in MTHFD1 or PEMT genes



#### The Science:

Choline is required for the synthesis of phospholipids and acetylcholine, a neurotransmitter involved in **attention**, learning and memory.<sup>1†</sup>

Certain genetic variations in **MTHFD1** and **PEMT**, enzymes that play critical roles in methylation and phosphatidylcholine synthesis, respectively, have been associated with increased dietary choline needs.<sup>2-4</sup>

Since the de novo synthesis of phosphatidylcholine requires the estrogen-inducible PEMT enzyme, **women** with low estrogen levels and/or certain SNPs in the PEMT gene have increased choline needs.<sup>5</sup>

**Postmenopausal women** with lower estrogen have higher dietary choline requirements because of reduced PEMT function.<sup>6</sup>

Choline requirements also increase during pregnancy.<sup>7</sup> One clinical trial showed that women who consumed **480 mg of choline daily during pregnancy** had offspring with faster processing speed than those who did not.<sup>81</sup>

A randomized, double-blind, placebo-controlled trial suggests that higher intake of choline also promotes **healthy hepatic fat metabolism**.<sup>91</sup>

#### Order your supply at: PureEncapsulationsPro.com/Choline

#### **REFERENCES**

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\*If you are pregnant or lactating, have any health condition or are taking any medication, consult your health professional before use.



