

# Evidence-based Inositol Usage

**Name(s):** Inositol monophosphate.

**Note:** Inositol differs from inositol hexaniacinate, a form of vitamin B3.

**Description:** The only form of this compound that is nutritionally effective comes from phosphatidylinositol called myoinositol. Inositol is found in both plant and animal tissues, functioning in controlling signals and messages of cells. This compound is important for maintaining the growth of the cells in the eye membranes, bone marrow, and intestines.<sup>1</sup>

**Absorption/Storage:** When ingested, not all of the inositol is used in that form. Approximately 7% of the inositol taken in is converted to glucose. The body only excretes a small amount because it is very vital for maintaining important biological pathways.<sup>1</sup>

**Recommended Dietary Allowance/Dietary Reference Intake:** The Recommended Dietary Allowance has not yet established an amount.<sup>1</sup>

**Optimum Daily Allowance (Adult):** 50-200 mg.<sup>2</sup>

**Tolerable Upper Intake Levels:** None available.

**Principal Uses:** Anxiety, depression and obsessive-compulsive disorder.<sup>3-6</sup>

**Proposed Uses:** None.

**Traditional Uses:** Bipolar disorder/manic depression and diabetes.<sup>7</sup>

**Healthy Sources:**

Good plant sources include citrus fruits, whole grains, nuts, seeds and legumes.<sup>8</sup>

**Contraindications:** No serious ill effects have been reported for inositol, even with a therapeutic dosage that equals about 18 times the average dietary intake. However, no long-term safety studies have been performed.<sup>8</sup>

**Interactions:**

Decreases Vitamin Availability:	Caffeine, <sup>1</sup> and lithium. <sup>4</sup>
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Increases Vitamin Availability:	Vitamins B complex and C. <sup>2</sup>
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**Deficiency:** A deficiency of inositol causes problems such as constipation, eczema, hair loss and disorders of the eyes.<sup>1</sup>

**Toxicity/Side Effects:** Toxicity has not been reported, although people with chronic renal failure show elevated levels and should not take inositol, except under medical supervision.<sup>7</sup>

**Treatment for Overdose:** None.

**Storage:** To store this dietary supplement:

- Keep out of the reach of children.
- Store away from heat and direct light.
- Do not store in the bathroom, near the kitchen sink, or in other damp places. Heat or moisture may cause the dietary supplement to break down.
- Do not keep outdated dietary supplement or those no longer needed. Be sure that any discarded dietary supplement is out of the reach of children.

**References:**

1. Dr. Morrow's Library of Vitamins, Minerals, Amino Acids, and Herbs: Inositol. [Online] <http://www.nutritiondynamics.com/cgi-bin/process.asp?product=Inositol>
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3. Levine, J., Barak, Y., Gonzalves, M. et al. (1995). Double-blind, controlled trial of inositol treatment of depression. *American Journal of Psychiatry*, 152: 792–794.
4. Levine, J., Barak, Y., Kofman, O. & Belmaker, R.H. (1995). Follow-up and relapse analysis of an inositol study of depression. *Israeli Journal of Psychiatry Related Sciences*, 32: 14–21.
5. Benjamin, J., Levine, J., Fux, M. et al. (1995). Double-blind, placebo-controlled, crossover trial of inositol treatment for panic disorder. *American Journal of Psychiatry*, 152: 1084–1086.
6. Fux, M., Levine, J., Aviv, A. & Belmaker, R.H. (1996). Inositol treatment of obsessive-compulsive disorder. *American Journal of Psychiatry*, 153: 1219–1221.
7. Austin, S., Gaby, A., Appleton, J. et al. (2001).

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8. Murray, M.T. (1996). Encyclopaedia of nutritional supplements. Rocklin, CA: Prima.

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you have a medical problem, promptly contact your health care provider. Information and statements regarding dietary supplements have not been evaluated by the Food and Drug Administration and are not intended to diagnose, treat, cure, or prevent any disease.

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