

Inositol

Inositol is a naturally occurring nutrient found in various forms, the most common being myo-inositol. Inositol is found in phospholipids which function as cellular mediators of signal transduction, in metabolic regulation, and growth. Myo-inositol is one of nine distinct isomers of inositol, and the terms are often used interchangeably. Inositol is essential for the growth of rodents, but not for most animals, including humans. Humans can make inositol in the body, which they do from glucose. Even though inositol is sometimes referred to as a vitamin, it is not a vitamin for humans. Myo-inositol is also known as inositol, hexahydroxycyclohexane, cyclohexanehexol, and mouse anti-alopecia factor.

Inositol is a direct precursor of phospholipids which are a major component of cellular membranes. Inositol helps to maintain proper electrical energy and nutrient transfer across the cell membrane. It also acts as a lipotropic which converts fats into other useful products. Inositol helps establish healthy cell membranes, which facilitate nerve impulses.

Inositol is a sophisticated cognitive formula. It combines a delicate balance of brain circulation agents and neurotransmitter precursors with powerful natural brain chemicals that support.

Inositol in the diet

Inositol is present in our diet from both plant and animal sources, providing the adult human with approximately 1 gram per day. The major dietary forms of myo-inositol are inositol hexaphosphate or phytic acid, which is widely found in cereals and legumes and associated with dietary fiber, and myo- inositol -containing phospholipids from animal and plant sources. Inositol is also found in nuts and fruits.

Inositol dosage

Always start with a lower dosage of one 500 mg capsule even though studies have used higher amounts. Do not take several grams at a time unless you have first tried a lower amount to see how your body reacts to it.

Inositol benefit for various medical and psychiatric conditions
Inositol supplements may benefit those with:

- Bipolar disorder
- Depression
- Impotence
- Obsessive-compulsive disorder
- Lung cancer
- Panic disorder
- Polycystic ovary syndrome
- Psoriasis

This supplement could also be helpful in those with who are on lithium medication. The inositol dosages used in most studies have been several grams. Whether smaller amounts of inositol benefit these conditions is not clear. Sometimes researchers choose dosages of medicines and supplements much higher than is required since they wish to elicit a quick response.

Inositol and anxiety

Double-blind, controlled, crossover trial of inositol versus fluvoxamine for the treatment of panic disorder.

Myo-Inositol, a natural isomer of glucose and a precursor for the second-messenger phosphatidyl-inositol system, has previously been found superior to placebo in the treatment of depression, panic disorder, and obsessive-compulsive disorder. A double-blind, controlled, random-order crossover study was undertaken to compare the effect of inositol with that of fluvoxamine in panic

disorder. Twenty patients completed 1 month of inositol up to 18 grams a day and 1 month of fluvoxamine up to 150 mg a day. Improvements on Hamilton Rating Scale for Anxiety scores, agoraphobia scores, and Clinical Global Impressions Scale scores were similar for both treatments. Nausea and tiredness were more common with fluvoxamine.

Inositol and depression

Controlled trials of inositol in psychiatry.

Inositol is a simple polyol precursor in a second messenger system important in the brain. Cerebrospinal fluid inositol has been reported decreased in depression. A double-blind controlled trial of 12 grams daily of inositol in 28 depressed patients for four weeks was performed. Significant overall benefit for inositol compared to placebo was found at week 4 on the Hamilton Depression Scale. No changes were noted in hematology, kidney or liver function.

Inositol and impotence

Myo-inositol and folic acid combination for the treatment of erectile dysfunction in type 2 diabetes men.

This prospective, randomized, double-blind, placebo-controlled study included 176 patients with type 2 diabetes. The daily 4 g dose of inositol plus 400 micrograms of folic acid or placebo was divided and given in three doses.

The present study demonstrates that Myo-inositol and folic acid combination deserves consideration as therapeutic agent for preventing and treating erectile dysfunction in diabetic men, probably by virtue of both their chronic metabolic, acute antioxidant properties, and nitric oxide protective beneficial effects.

Inositol and OCD

Single photon emission computed tomography (SPECT) in obsessive-compulsive disorder before and after treatment with inositol.

Inositol, a glucose isomer and second messenger precursor, regulates numerous cellular functions and has demonstrated efficacy in obsessive-compulsive disorder OCD through mechanisms that remain unclear. The effect of inositol treatment on brain function in OCD has not been studied to date. Fourteen OCD subjects underwent single photon emission computed tomography (SPECT) before and after 12 weeks of treatment with inositol supplements. There was:

- 1) Deactivation in OCD responders relative to non-responders following treatment with inositol in the left superior temporal gyrus, middle frontal gyrus and precuneus, and the right paramedian post-central gyrus.
- 2) No significant regions of deactivation for the group as a whole post treatment.
- 3) a single cluster of higher perfusion in the left medial prefrontal region in responders compared to non-responders at baseline.

Significant reductions in OCD severity scores followed treatment. These data are only partly consistent with previous functional imaging work on OCD. They may support the idea that inositol effects a clinical response through alternate neuronal circuitry to the SSRIs and may complement animal work proposing an overlapping but distinct mechanism of action.

Inositol and panic disorder

Double-blind, controlled, crossover trial of inositol versus fluvoxamine for the treatment of panic disorder.

Myo Inositol, a natural isomer of glucose and a precursor for the second-messenger phosphatidyl inositol system, has previously been found superior to placebo in the treatment of depression, panic disorder, and obsessive-compulsive disorder OCD, but a direct comparison with an established drug has never been performed.

A double-blind, controlled, random-order crossover study was undertaken to compare the effect of inositol with that of fluvoxamine in panic disorder. Twenty patients completed 1 month of inositol up to 18 grams a day and 1 month of fluvoxamine up to 150 mg/day. Improvements on Hamilton Rating Scale for Anxiety scores, agoraphobia scores, and Clinical Global Impressions Scale scores were similar for both treatments. In the first month, inositol reduced the number of panic attacks per week by 4 compared with a reduction of 2.4 with fluvoxamine. Nausea and tiredness were more common with fluvoxamine. Because inositol is a natural compound with few known side effects, it is attractive to patients who are ambivalent about taking psychiatric medication.

Since many antidepressants are effective in panic disorder, twenty-one patients with panic disorder with or without agoraphobia completed a double-blind, placebo-controlled, four week, random-assignment crossover treatment trial of inositol 12 grams per day. Frequency and severity of panic attacks and severity of agoraphobia declined significantly with inositol compared to placebo. Side-effects were minimal. Since serotonin re-uptake inhibitors benefit obsessive compulsive disorder OCD and inositol is reported to reverse desensitization of serotonin receptors, thirteen patients with OCD completed a double-blind controlled crossover trial of 18 g inositol or placebo for six weeks each. Inositol significantly reduced scores of OCD symptoms compared with placebo.

Myo inositol and lung cancer

A phase I study of myo-inositol for lung cancer chemoprevention. Cancer Epidemiol Biomarkers.

A phase I, open-label, multiple dose, dose-escalation clinical study was conducted to assess the safety, tolerability, maximum tolerated dose, and potential chemopreventive effect of myo-inositol in smokers with bronchial dysplasia.

Smokers between 40 and 74 years of age with more than 30 pack-years of smoking history and one or more sites of bronchial dysplasia were enrolled. A dose escalation study ranging from 12 to 30 g/d of myo-inositol for a month was first conducted in 16 subjects to determine the maximum tolerated dose. Ten new subjects were then enrolled to take the maximum tolerated dose for 3 months. The potential chemopreventive effect of myo-inositol was estimated by repeat autofluorescence bronchoscopy and biopsy. The maximum tolerated dose was found to be 18 grams per day. Side effects, when present, were mild and mainly gastrointestinal in nature. A significant increase in the rate of regression of preexisting dysplastic lesions was observed versus placebo (91% versus 48%). A statistically significant reduction in systolic and diastolic blood pressures by an average of 10 mm Hg was observed after taking 18 g/d of myo-inositol for a month or more. Myo-Inositol in a daily dose of 18 g orally for 3 months is safe and well tolerated.

Inositol and polycystic ovary syndrome

Effects of Inositol on ovarian function and metabolic factors in women with PCOS: a randomized double blind placebo-controlled trial.

Women with oligomenorrhea and polycystic ovaries show a high incidence of ovulation failure perhaps linked to insulin resistance and related metabolic features. A small number of reports show that inositol improves ovarian function. The aim of this study was to use a double-blind, placebo-controlled approach with detailed assessment of ovarian activity to assess the validity of this therapeutic approach in this group of women. Of the 283 patients randomized, 2 withdrew before treatment commenced, 147 received placebo, and 136

received inositol (100 mg, twice a day). The ovulation frequency estimated by the ratio of luteal phase weeks to observation weeks was significantly higher in the treated group (23%) compared with the placebo (13%). The time in which the first ovulation occurred was significantly shorter. The number of patients failing to ovulate during the placebo-treatment period was higher in the placebo group, and in most cases ovulations were characterized by normal progesterone concentrations in both groups. The effect of inositol on follicular maturation was rapid, because the circulating concentration of E2 increased only in the inositol group during the first week of treatment.

Significant weight loss (and leptin reduction) was recorded in the inositol group, whereas in the placebo group was recorded an increase of the weight. No change in fasting glucose concentrations, fasting insulin, or insulin responses to glucose challenge test was recorded after 14-wk of inositol and placebo therapy. There was an inverse relationship between body mass of the patients and the efficacy of the treatment. These data support a beneficial effect of inositol in improving ovarian function in women with oligomenorrhea and polycystic ovaries.

Inositol and psoriasis

The effect of inositol supplements on the psoriasis of patients taking lithium: a randomized, placebo-controlled trial.

Lithium carbonate is the most widely used long-term treatment for bipolar affective disorders, but its ability to trigger and exacerbate psoriasis can become a major problem in patients for whom lithium is the only treatment option. Inositol depletion underlies the action of lithium in bipolar affective disorders and there are good theoretical reasons why the use of inositol supplements might be expected to help this group of patients. Fifteen patients with psoriasis, who were taking lithium, took part in a randomized, double-blind, placebo-controlled, crossover clinical trial comparing the effect of inositol

supplements with those of a placebo (lactose). Changes in the severity of their psoriasis were measured by Psoriasis Area and Severity Index scores recorded before and after the different courses of treatment. The effect of inositol supplements on the psoriasis of 11 patients who were not taking lithium was evaluated in the same way. The inositol supplements had a significantly beneficial effect on the psoriasis of patients taking lithium. No such effect was detected on the psoriasis of patients not on lithium. The use of inositol supplements is worth considering for patients with intractable psoriasis who need to continue to take lithium for bipolar affective disorders.

Inositol supplements show no benefit in these conditions
Inositol supplements have not been found to benefit those with ADHD, Alzheimer's disease, autism, ECT-induced cognitive impairment, PMS, or schizophrenia.

ADHD - Oral inositol was studied in children with ADHD in a double-blind, crossover, and placebo-controlled manner. Eleven children, mean age 9 years were enrolled in an eight week trial of inositol or placebo at a dose of 200 mg/kg body weight. Results showed a trend for aggravation of the syndrome with myo-inositol as compared to placebo.

Alzheimer's disease - A double-blind controlled crossover trial of 6 g of inositol daily vs. glucose for one month each was carried out in eleven Alzheimer patients, with no clearly significant therapeutic effects.

Autism - A controlled double-blind crossover trial of inositol 200 mg/kg per day showed no benefit in nine children with autism.

EDT induced cognitive decline - Cholinergic agonists have been reported to ameliorate electroconvulsive therapy (ECT)-induced memory impairment. Inositol metabolism is involved in the second messenger system for several muscarinic cholinergic receptors.

Inositol 6 g daily was given in a crossover-double-blind manner for five days before the fifth or sixth ECT to a series of twelve patients, without effect.

Premenstrual syndrome - Myo inositol 12 grams daily was compared to placebo (d-glucose) administered at the same dose to patients with PMS. Each substance was given during the luteal phase only (14 days prior to menses). For each patient treatment alternated between these two drugs for six menstrual cycles. No beneficial effect was demonstrated for inositol over placebo.

Schizophrenia - A controlled double-blind crossover trial of 12 g daily of inositol for a month in twelve anergic schizophrenic patients, did not show any beneficial effects.

Inositol mechanism of action

Myo-Inositol is synthesized from glucose-6-phosphate. Myo- inositol is metabolized to phosphatidyl-inositol, which makes up a small, but very significant, component of cell membranes.

Scyllo-inositol

D- chiro- Inositol – Galactosamine

Natural carbohydrate can help lower blood sugar, Joseph Larner, M.D., Ph.D., professor emeritus and former chairman of the department of pharmacology at the University of Virginia Health System, has conducted research on a carbohydrate isolated from the liver that lowers blood sugar levels after it is injected into diabetic rats: “Our team believes this compound, called D-chiro- Inositol - Galactosamine, or INS2, acts as a messenger inside cells to switch on enzymes that regulate blood sugar, taking glucose from the bloodstream into the liver and muscles where it is stored. INS2 is naturally occurring in the body and is found in human blood. Our findings could lead to new drugs to treat Type 2 diabetes, the most common form of the disease. Diabetes is a known risk factor for

nerve and kidney damage, stroke, heart disease and blindness, among other complications. Some scientists think the complications are due to modifications in certain proteins and in how genes respond to insulin. We believe this molecule works by sending a message inside the cell to respond to insulin, which helps cells dispose of excess glucose.”

D Chiro Inositol

Effects of d-chiro- inositol in lean women with the polycystic ovary syndrome.

To determine whether the administration of D chiro inositol, a putative insulin-sensitizing drug, would affect the concentration of circulating insulin, the levels of serum androgens, and the frequency of ovulation in lean women with the polycystic ovary syndrome. In 20 lean women who had the polycystic ovary syndrome, treatment was initiated with either 600 mg of D chiro inositol or placebo orally once daily for 6 to 8 weeks. We performed oral glucose tolerance tests and measured serum sex steroids before and after therapy. To monitor for ovulation, we determined serum progesterone concentrations weekly.

In the 10 women given D-chiro- inositol, the mean area under the plasma insulin curve after oral administration of glucose decreased significantly in comparison with no significant change in the placebo group. Concomitantly, the serum free testosterone concentration decreased by 73%, a significant change in comparison with essentially no change in the placebo group. Six of the 10 women (60%) in the D-chiro- inositol group ovulated in comparison with 2 of the 10 women (20%) in the placebo group. Systolic and diastolic blood pressures, as well as plasma triglyceride concentrations, decreased significantly in the D-chiro- inositol group in comparison with the placebo group, in which these variables either increased (blood pressure) or decreased minimally (triglycerides). We conclude that, in lean women with the polycystic ovary syndrome, D-chiro- inositol

reduces circulating insulin, decreases serum androgens, and ameliorates some of the metabolic abnormalities (increased blood pressure and hypertriglyceridemia) of syndrome X.

Inositol Hexanicotinate

A double blind randomised placebo controlled trial of hexopal in primary Raynaud's disease.

Hexopal (Hexanicotinate inositol) has shown promise in uncontrolled studies and its use in patients with Raynaud's disease may reduce such vasospasm.

This study examines the effects of 4 g/day of Inositol hexanicotinate or placebo, during cold weather, in 23 patients with primary Raynaud's disease. The Inositol hexanicotinate group felt subjectively better and had demonstrably shorter and fewer attacks of vasospasm during the trial period. Although the mechanism of action remains unclear Inositol hexanicotinate is safe and is effective in reducing the vasospasm of primary Raynaud's disease during the winter months.

Inositol unofficially referred to as 'vitamin B₈,' is present in all animal tissues, with the highest levels in the heart and brain. It is part of the membranes (outer coverings) of all cells, and plays a role in helping the liver process fats as well as contributing to the function of muscles and nerves.

Inositol may also be involved in depression. People who are depressed may have lower than normal levels of inositol in their spinal fluid. In addition, inositol participates in the action of *serotonin*, a neurotransmitter known to be a factor in depression.

(Neurotransmitters are chemicals that transmit messages between nerve cells.) For these two reasons, inositol has been proposed as a treatment for depression, and preliminary evidence suggests that it may be helpful.

Inositol has also been tried for other psychological and nerve-related conditions.

Function

Inositol as the basis for a number of signaling and secondary messenger molecules, is involved in a number of biological processes, including:

- Insulin signal transduction
- Cytoskeleton assembly
- Nerve guidance (Epsin)
- Intracellular calcium (Ca^{2+}) concentration control
- Cell membrane potential maintenance
- Serotonin activity modulation
- Breakdown of fats and reducing blood cholesterol
- Gene expression

Sources

Inositol is available from both plant and animal sources. The plant form in which Inositol is available is phytic acid, which can bind with minerals and so affect their absorption negatively.

Inositol is available from wheat germ, brewers yeast. Bananas, liver, brown rice, oat flakes, nuts, unrefined molasses, raisins and vegetables. Also nuts, seeds, beans, whole grains, cantaloupe, and citrus fruits supply a substance called phytic acid (inositol hexaphosphate, or IP6), which releases inositol when acted on by bacteria in the digestive tract.

The body is also able to manufacture this factor; therefore Inositol is not known to be an essential nutrient. This is why it is not classified as a vitamin.

Roles

Inositol plays an important part in the health of cell membranes especially the specialized cells in the brain, bone marrow, eyes and intestines. The function of the cell membranes is to regulate the contents of the cells, which makes effective functioning possible.

Inositol is said to promote healthy hair, hair growth, according to some reports, Inositol strengthens the cells of the hair helping it to retain moisture. It is available as an ingredient in some shampoo formulas.

Inositol helps in controlling estrogen levels and may assist in preventing breast lumps.

It may also be of benefit in reducing blood cholesterol levels.

Taking of long term antibiotics may increase your need for inositol, as well as if you consume a lot of coffee. Coffee kills this nutrient.

Therapeutic Dosages

If your intake is not sufficient, you may experience symptoms such as eczema, hair loss, constipation, and abnormalities of the eyes and raised cholesterol.

Experimentally, inositol dosages of up to 18 g daily have been tried for various conditions.

Choline should be taken in the same amount as inositol and the best is to take the entire B group vitamins with it, Vitamin E, vitamin C as well as folic acid and linoleic acid is thought to increase the functioning of inositol.

Therapeutic Uses

Some but not all studies suggest that high-dose inositol may be useful for depression.

Inositol has also been studied for bipolar disorder, panic disorder, bulimia, and obsessive-compulsive disorder, but the evidence remains far from conclusive. Other potential uses include Alzheimer's disease and attention deficit disorder.

According to two double-blind studies enrolling a total of almost 400 people, inositol may help improve various symptoms of polycystic ovary syndrome, including infertility and weight gain.

Another very small double-blind study found that inositol supplements could help reduce symptoms of psoriasis triggered or made worse by use of the drug lithium.

A small double-blind study failed to find inositol helpful for premenstrual dysphoric disorder, a severe form of premenstrual syndrome (PMS).

Inositol is sometimes proposed as a treatment for diabetic neuropathy, but there have been no double-blind, placebo-controlled studies on this subject, and two uncontrolled studies had mixed results.

Inositol has also been investigated for potential cancer-preventive properties.

Depression

Small double-blind studies have found inositol helpful for depression. In one such trial, 28 depressed individuals were given a daily dose of 12 g of inositol for 4 weeks. By the fourth week, the group receiving inositol showed significant improvement compared to the placebo group.

However, a double-blind study of 42 people with severe depression that was not responding to standard antidepressant treatment found no improvement when inositol was added.

Panic Disorder

People with panic disorder frequently develop panic attacks, often with no warning. The racing heartbeat, chest pressure, sweating, and other physical symptoms can be so intense that they are mistaken for a heart attack. A small double-blind study (21 participants) found that people given 12 g of inositol daily had fewer and less severe panic attacks as compared to the placebo group.

A double-blind, crossover study of 20 individuals compared inositol to the antidepressant drug fluvoxamine (Luvox), a medication related to Prozac. The results over 4 weeks of treatment showed that the supplement was at least as effective as the drug.

Bipolar Disorder

In a 6-week, double-blind study, 24 individuals with bipolar disorder received either placebo or inositol (2 g three times daily for a week, then increased to 4 g three times daily) in addition to their regular medical treatment. The results of this small study failed to show statistically significant benefits; however, promising trends were seen that suggest a larger study is warranted.

Polycystic Ovary Syndrome

Polycystic ovary syndrome (PCOS) is a chronic endocrine disorder in women that leads to infertility, weight gain, and many other problems. In a double-blind, placebo-controlled trial, 136 women with PCOS were given inositol at a dose of 100 mg twice daily, while 147 were given placebo. Over the study period of 14 weeks, participants given inositol showed improvement in ovulation frequency as compared to those given placebo. Benefits were also seen in terms of weight loss and levels of HDL (“good”) cholesterol. A subsequent study of 94 people found similar results. However, both of the studies were performed by the same research group. Independent confirmation will be necessary before inositol could be considered an effective treatment for PCOS.

Other conditions

D-chiro-Inositol (DCI) has been found in two double-blind studies to be an effective treatment for many of the clinical hallmarks of polycystic ovary syndrome (PCOS), including insulin resistance, hyperandrogenism, and oligo-amenorrhea. The impetuses for these studies were the observed defects in DCI metabolism in PCOS and the implication of DCI in insulin signal transduction.

Animal studies suggest Inositol reduces the severity of the osmotic demyelization syndrome if given prior to rapid correction of chronic hyponatraemia. Further study is required prior to its application in humans for this indication.

Studies from *in vitro* experiments, animal studies, and limited clinical experiences, claim that Inositol may be used effectively against some types of cancer, in particular, when used in combination with phytic acid.

Controlled trials of inositol in psychiatry

Inositol is a simple polyol precursor in a second messenger system important in the brain. Cerebrospinal fluid inositol has been reported as decreased in depression. A double-blind controlled trial of 12 g daily of inositol in 28 depressed patients for four weeks was performed. Significant overall benefit for inositol compared to placebo was found at week 4 on the Hamilton Depression Scale. No changes were noted in hematology, kidney or liver function. Since many antidepressants are effective in panic disorder, twenty-one patients with panic disorder with or without agoraphobia completed a double-blind, placebo-controlled, four week, random-assignment crossover treatment trial of inositol 12 g per day.

Frequency and severity of panic attacks and severity of agoraphobia declined significantly with inositol compared to placebo. Side-effects were minimal. Since serotonin re-uptake inhibitors benefit obsessive compulsive disorder (OCD) and inositol is reported to reverse

desensitization of serotonin receptors, thirteen patients with OCD completed a double-blind controlled crossover trial of 18 g inositol or placebo for six weeks each. Inositol significantly reduced scores of OCD symptoms compared with placebo.

A controlled double-blind crossover trial of 12 g daily of inositol for a month in twelve anergic schizophrenic patients, did not show any beneficial effects. A double-blind controlled crossover trial of 6 g of inositol daily vs. glucose for one month each was carried out in eleven Alzheimer patients, with no clearly significant therapeutic effects. Antidepressant drugs have been reported to improve attention deficit disorder (ADDH) with hyperactivity symptomatology.

We studied oral inositol in children with ADDH in a double-blind, crossover, placebo-controlled manner. Eleven children, mean age 8.9 +/- 3.6 years were enrolled in an eight week trial of inositol or placebo at a dose of 200 mg/kg body weight. Results show a trend for aggravation of the syndrome with myo-inositol as compared to placebo. Recent studies suggest that serotonin re-uptake inhibitors are helpful in at least some symptoms of autism. However a controlled double-blind crossover trial of inositol 200 mg/kg per day showed no benefit in nine children with autism.

Cholinergic agonists have been reported to ameliorate electroconvulsive therapy (ECT)-induced memory impairment. Inositol metabolism is involved in the second messenger system for several muscarinic cholinergic receptors. Inositol 6 g daily was given in a crossover-double-blind manner for five days before the fifth or sixth ECT to a series of twelve patients, without effect.

These results suggest that inositol has therapeutic effects in the spectrum of illness responsive to serotonin selective re-uptake inhibitors, including depression, panic and OCD, and is not beneficial in schizophrenia, Alzheimer's ADDH, autism or ECT-induced cognitive impairment.

Safety Issues

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.

Although inositol has sometimes been recommended for bipolar disorder, there is evidence to suggest inositol may trigger manic episodes in people with this condition. If you have bipolar disorder, you should not take inositol unless under a doctor's supervision.

Safety has not been established in young children, women who are pregnant or nursing, and those with severe liver and kidney disease. As with all supplements used in very large doses, it is important to purchase a reputable product, because a contaminant present even in small percentages could add up to a real problem.

No toxic effects known, but diarrhea has been noted with the intake of very high dosage of Inositol. The chief side effects of inositol are gas and diarrhea. Some people get this for the first few days and then it clears up. Some of those taking it never have this side effect, and some only get it when they take more than a particular amount.

It cannot be taken together with Lithium, as Lithium seems to block its action.

Caffeine lowers Inositol levels in the body. Heavy coffee drinker, might consider cutting down or eliminating caffeinated drinks.

Inositol is water soluble, so although the doses appear to be large, it will not build up to toxic levels in the body. Whatever the body does not use is excreted. The average person normally takes in about 1 gram of inositol each day via the food they eat.

A child can be built up to 6 grams per day over a six week period. Dosages for adolescents can be adjusted according to weight.

In any case, it is best to allow side effects to be the guide. If they begin to occur, it is not considered wise to increase the dosage unless they subside. Once a person has reached either the maximum dosage, or the greatest amount they are able to tolerate, it is best to try staying six weeks at that level to see if there is any noticeable improvement. If there is none by the end of that time, it should probably be discontinued.

As with any treatment, those who are absolutely positive that it will help are only setting themselves up, and may wind up more than disappointed. Everything works for someone, but nothing works for everyone.