

Naturopathic Considerations in the Treatment of Postpartum Depression

Respectfully Submitted by Trang Q. Duong, N.D.

The “postpartum blues” or “baby blues” is a transient state of tearfulness, anxiety, irritation, and restlessness associated with hormonal changes (a steep drop in estrogen and progesterone) that occur in the first few days after birth. Some 50-80% of women in Western culture experiences these changes in mood. Postpartum depression is more intense changes in mood and typically lasts longer than “baby blues”. Postpartum depression can occur at any time during the first year after delivery. Depression can have many causes including but not limited to hormonal/biochemical imbalances, nutritional deficiencies, &/or a response to acute stress or trauma. Naturopathic approach to health is holistic with the emphasis on treating the cause and looking at the whole person. It would be beyond the scope of this discussion to address all the factors and treatments that a Naturopathic Physician would consider in the treatment of postpartum depression. However, below are some of the considerations that may apply to the naturopathic approach to postpartum depression:

- **ADEQUATE ACTIVITY AS WELL AS ADEQUATE REST.**

It is important to help mothers balance between adequate rest and essential exercise. Adequate sleep is required for the body to repair itself and to take inventory of its resources. Mothers of newborns tend to be sleep deprived. It is important to encourage these women to nap with their children to get adequate rest. However, exercise is also essential to good mental health. Exercise increases the body’s production of endorphins, chemical substances that can relieve depression. Scientific research shows that routine aerobic exercise, as little as three hours per week, can positively affect mood.ⁱ For mothers who find it difficult to set aside time to “workout”, they may find it more feasible to do short bouts of exercise. For example, 5 to 15-minute walks around the neighborhood 1-2 times per day can provide a sufficient amount of exercise to improve mood.

- **ADEQUATE CALORIC AND MACRONUTRIENT INTAKE.**

A naturopathic physician assesses dietary intake of carbohydrates, protein and fat (including Essential Fatty Acids). Inadequate intake of calories, protein &/or fats in the diet can lead to generalized nutritional deficiencies which can affect many areas of health, including mental health. Without adequate fuel to run the machinery of the body, one can see a myriad of signs and symptoms.

Omega-3 fatty acids found in flaxseed (linseed) oil, black current oil, perilla oil, walnut oil and fish oils, particularly EPA & DHA, are needed for normal nervous system function as well as hormone and immune system function. Depressed people have been reported to have lower DHA levels than people who are not depressedⁱⁱ Low levels of the other omega-3 fatty acid have correlated with increased severity of depression. People with depression are given a very high intake of supplemental omega-3 fatty acids (enough fish oil to contain 9.6 grams of omega-3 fatty acids per day) for at least four months.ⁱⁱⁱ Some scores of depression levels fall as much as 48% in individuals given omega-3 fatty acids. Omega-6 oils are also essential for health. However, our diets typically contain an abundance of omega-6 sources compared to omega-3 sources.

- **NUTRITIONAL DEFICIENCIES with or without anemia: Iron, Folic acid &/or Vitamin B12 deficiency, and other B-vitamins, especially Vitamin B1 and Vitamin B6**

Nutritional supplements may be helpful in some cases of depression. For example, many women who take birth control pills or have hormonal imbalances associated with their depression respond well to Vitamin B6, a nutrient needed for maintenance of normal mental functioning^{iv}. Some evidence suggests that women, who are depressed, even when not taking the oral contraceptive pills, are still more likely to be Vitamin B6 deficient than people who are not depressed.^v Studies also indicate that vitamin B6 supplementation helps alleviate depression associated with premenstrual syndrome (PMS).^{vi}

Anemia due to iron deficiency is known to affect mood and can worsen depression, but it must be diagnosed and treated by a physician. There are some cases where there may be iron deficiency, assessed by serum ferritin levels in the blood, without anemia, which can also contribute to depression. While iron deficiency is easy to fix with iron supplements, people who have not been diagnosed with iron deficiency should not supplement with iron.

Persons suffering from chronic depression should also be evaluated for possible folic acid &/or Vitamin B12 deficiency by a physician. Deficiency of folic acid &/or Vitamin B12 can create disturbances in mood or depression with or without associated anemia. A large percentage of depressed people have low folic acid levels.^{vii} In the case of overcoming a diagnosed B12 deficiency, one can follow an initial series of vitamin B12 injections with oral maintenance supplementation of 1000 mcg per day, even when the cause of the deficiency is pernicious anemia. Those with abnormally low levels of folic acid are sometimes given short-term, high amounts of folic acid (5-10 mg per day) orally or by injection. A deficiency of other B vitamins including thiamine (B1), riboflavin (B2), niacin (B3), pantothenic acid (B5), and biotin can also lead to depression. It is recommended that high dose supplementation with any particular B-vitamin be given concurrent with a B-complex. *Breastfeeding mothers should consult a nutritionally oriented physician to assure the right dose of B-vitamins without compromising breastmilk production. High doses of Vitamin B6 have been used to inhibit milk production.*

Supplementary intake of calcium, compared to placebo, was associated with significantly greater elevation in mood as measured by the Beck Depression Inventory. In two studies^{viii}, a total of 123 student volunteers without a previous diagnosis of depressive disorders received either placebo or calcium (1000 mg) tablets. The tablets were taken for a period of four weeks, one tablet, twice per day. The results of these experiments show a beneficial effect of calcium on mood and suggest a possible use for the treatment of depressive disorders.

- **FOOD ALLERGIES**

Several double-blind studies have shown that food allergies can trigger depression.^{ix, x} Food allergies can create inflammation and water retention that some theorize can contribute to the mood altering effects of food allergies. Food allergies may also contribute to abnormal carbohydrate metabolism, which can affect the fuel the brain receives, again contributing to mood alterations. Individuals with depression who do not respond to other natural or conventional approaches should consult a naturopathic physician to diagnose possible food sensitivities and avoid offending foods.

- **GLUCOSE INTOLERANCE, REACTIVE HYPOGLYCEMIA, OR DIABETES.**
A physician would check blood sugar as well as assess dietary intake of refined carbohydrates, sugars, and caffeine. Food allergies and abnormal carbohydrate metabolism may be linked. Restricting sugar and caffeine in people with depression has been reported to elevate mood in preliminary research.^{xi} Caffeine in the short term may improve mood, but in the long term may contribute to blood sugar imbalances, adrenal fatigue, and nutrient depletion, all of which may contribute to or exacerbate depression.
- **HYPOTHYROIDISM**
Clinical or Subclinical hypothyroidism can be assessed by blood work or basal body temperature records, respectively. Low thyroid function may contribute to depression. Proper thyroid function is essential for metabolism and energy production.
- **SEROTONIN or other NEUROTRANSMITTER (brain hormone) IMBALANCES**
Several amino acids may be helpful for treating depression caused by serotonin or other neurotransmitter imbalances. A twelve-week therapeutic trial with L-tyrosine, an amino acid that converts into norepinephrine, can improve mood, especially apathy. Published research has used a very high amount, approximately 100-mg per 2.2 pounds of body weight. L-tyrosine is best taken in the morning. L-Phenylalanine is another amino acid that converts to mood-affecting substances such as phenylethylamine. Preliminary research reported that L-phenylalanine improved mood in most depressed people studied.^{xii} A one-month trial with 3–4 grams per day of phenylalanine for people with depression is recommended. One preliminary study found that even very low amounts, 75–200 mg per day, can also be helpful.^{xiii}

Phosphatidylserine (PS), a natural substance derived from the amino acid serine, affects neurotransmitter levels in the brain that affect mood. In a controlled trial using 300 mg of PS daily for forty-five days, the level of depression in the PS group was more than 60% lower than the level achieved with placebo.^{xiv}

5-Hydroxytryptophan (5-HTP) supplementation increases serotonin synthesis in the brain which can help people with depression of the anxious or agitated type. Some trials using 5-HTP with people suffering from depression have shown efficacy.^{xv, xvi, xvii} 5-htp is best taken in the evening. *Depressed people interested in using any of the above amino acids as neurotransmitter precursors should consult a physician.*

- **BOTANICAL MEDICINES**
St. John's Wort extracts are among the leading medicines used in Germany by medical doctors for the treatment of mild to moderate depression. The St. John's Wort extract LI 160 has been compared to the prescription antidepressant imipramine,^{xviii} amitriptyline,^{xix} and maprotiline.^{xx} The improvement in symptoms of mild to moderate depression was similar, with notably fewer side effects, in people taking St. John's Wort. Symptoms such as sadness, hopelessness, worthlessness, exhaustion, and poor sleep also decrease and people report improved mood. In the German Commission E monograph, the amount of St. John's Wort taken is typically based on hypericin concentration (typically 0.2-0.3% hypericin) in the extract, which should be approximately 1 mg per day. Many European studies use high

intakes of 900-mg daily, the accepted daily amount in modern herbal medicine. As an antidepressant, St. John's Wort should be monitored for four to six weeks to check effectiveness. It is best taken with food and is *not to be taken concurrently with a prescription antidepressant, which can interact with St. John's Wort and theoretically cause Serotonin Syndrome.*

Siberian ginseng and Schizandra berries (both containing lignans) have been used to support adrenal function during chronic stress and to improve mood. In animals, eleutherococcus reduces the extent of the alarm reaction and prevents or delays the harmful exhaustive phase of the stress response.^{xxi} The adaptogenic properties of eleutherococcus have been shown to be useful in improving mood, attention, energy, and sense of well being.^{xxii} In traditional Chinese Medicine, Schisandra is known to calm the shen and is therefore useful for anxiety and insomnia, palpitations, and forgetfulness due to excessive stress. The CNS effect of Schisandra is stimulatory and also results in decreased fatigue and improved endurance.

Milk thistle is a well-studied botanical used primarily to protect and support liver functions. Naturopathic physicians may use liver supportive botanicals such as milk thistle to help metabolize the natural hormones in the body, which may help in balancing hormones.

■ ADEQUATE POSTPARTUM SUPPORT

Naturopathic physicians recognize the importance of support for depressed individuals. In the case of a new or experienced mom, adequate support must be provided. Most non-Western cultures believe that the healthiest mother-baby depends on the community within which they live. Public health nurses, physicians, counselors, psychologists, psychiatrist, clergy, spiritual leaders, family, friends, and groups such as the Pacific Postpartum Support Society can provide invaluable assistance to moms and their families. This form of therapy is an essential adjunct to those mentioned above.

ⁱ Martinsen EW. Benefits of exercise for the treatment of depression. *Sports Med* 1990;9:380–9.

ⁱⁱ Edwards R, Peet M, Shay J, Horrobin D. Omega-3 polyunsaturated fatty acid levels in the diet and in red blood cell membranes of depressed patients. *J Affect Disord* 1998;48:149–55.

ⁱⁱⁱ Stoll AL, Severus WE, Freeman MP, et al. Omega 3 fatty acids in bipolar disorder. A preliminary double-blind, placebo-controlled trial. *Arch Gen Psychiatry* 1999;56:407–12.

^{iv} Adams PW, Wynn V, Rose DP, et al. Effect of pyridoxine hydrochloride (Vitamin B6) upon depression associated with oral contraception. *Lancet* 1973;i:897–904

^v Russ CS, Hendricks TA, Chrisley BM, et al. Vitamin B-6 status of depressed and obsessive-compulsive patients. *Nutr Rep Int* 1983;27:867–73.

^{vi} Gunn ADG. Vitamin B6 and the premenstrual syndrome (PMS). *Int J Vitam Nutr Res* 1985;(Suppl 27):213–24 [review].

^{vii} Reynolds E, Preece JM, Bailey J, Coppen A. Folate deficiency in depressive illness. *Br J Psychiatry* 1970;117:287–92.

^{viii} “A Beneficial Effect of Calcium Intake on Mood” by Kamyar Arasteh, Ph.D., <http://www.orthomed.org/links/papers/arastdep.htm>

^{ix} King DS. Can allergic exposure provoke psychological symptoms? A double-blind test. *Biol Psychiatry* 1981;16:3–19.

-
- ^x Brown M, Gibney M, Husband PR, Radcliffe M. Food allergy in polysymptomatic patients. *Practitioner* 1981;225:1651–4.
- ^{xi} Christensen L. Psychological distress and diet-effects of sucrose and caffeine. *J Applied Nutr* 1988;40:44–50.
- ^{xii} Sabelli HC, Fawcett J, Gustovsky F, et al. Clinical studies on the phenylethylamine hypothesis of affective disorder: urine and blood phenylacetic acid and phenylalanine dietary supplements. *J Clin Psychiatry* 1986;47:66–70.
- ^{xiii} Beckmann H, Strauss MA, Ludolph E. DL-Phenylalanine in depressed patients: an open study. *J Neural Transm* 1977;41:123–34.
- ^{xiv} Maggioni M, Picotti GB, Bondiolotti GP, et al. Effects of phosphatidylserine therapy in geriatric patients with depressive disorders. *Acta Psychiatr Scand* 1990;81:265–70.
- ^{xv} Nolen WA, van de Putte JJ, Dijken WA, et al. Treatment strategy in depression. II. MAO inhibitors in depression resistant to cyclic antidepressants: two controlled crossover studies with tranylcypramine versus L-5-hydroxytryptophan and nimifensine. *Acta Psychiatr Scand* 1988;78:676–83.
- ^{xvi} Nolen WA, van de Putte JJ, Dijken WA, Kamp JS. L-5-HTP in depression resistant to re-uptake inhibitors. An open comparative study with tranylcypramine. *Br J Psychiatry* 1985;147:16–22.
- ^{xvii} D’Elia G, Hanson L, Raotma H. L-tryptophan and 5-hydroxytryptophan in the treatment of depression. A review. *Acta Psychiatr Scand* 1978;57:239–52 [review].
- ^{xviii} Vorbach EU, Hübner WD, Arnoldt KH. Effectiveness and tolerance of the Hypericum extract LI 160 in comparison with imipramine: Randomized double-blind study with 135 outpatients. *J Geriatr Psychiatry Neurol* 1994;7(suppl):S19–23.
- ^{xix} Wheatley D. LI 160, an extract of St. John’s wort versus amitriptyline in mildly to moderately depressed outpatients—controlled six week clinical trial. *Pharmacopsychiatry* 1997;30(suppl):77–80.
- ^{xx} Harrer G, Hübner WD, Poduzweit H. Effectiveness and tolerance of the Hypericum extract LI 160 compared to maprotiline: A multicenter double-blind study. *J Geriatr Psychiatry Neurol* 1994;7(suppl 1);S24–8.
- ^{xxi} Wagner H, Norr H, and Winterhoff H. *Phytomedicine*, 1,1994:63-76.
- ^{xxii} Hiai S, Yokoyama H, et al. *Endocrinol Jpn*, 26,1979:661

Adapted from Healthnotes