Surviving Unipolar Depression - The Effectiveness of Ginkgo Biloba

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My symptoms of unipolar depression began nearly 30 years ago when I was 17. Thinking I was just intense and moody, I did not realize I was having episodes of a mood disorder. By 1995, the symptoms worsened, as expected when an illness is left untreated for years. I was feeling helpless depressed, and anxious most of the time, having trouble sleeping, my appetite was gone, my libido went too, short term memory wasn't reliable and it was hard to focus. Finally I sought medical advice. My doctor laughed. After consulting with a family practitioner, a psychologist, a therapist and two psychiatrists, I was diagnosed with dysthymia, episodes of double depression and major depression.

Given my sorry state, the psychologist suggested antidepressant medication but explained that I would have to be monitored by a physician. I started taking paxil, first monitored by a family doctor and later referred to a psychiatrist. Meanwhile, sessions with the psychologist helped me update my coping skills and identify patterns of thinking which were inappropriate, illogical, unrealistic, upsetting and negative.

My uncomfortable trials of synthetic antidepressants took nearly a year. During this time, I was under the care of a psychologist, a family doctor and an experienced psychiatrist who claimed success treating mood disorders. My medications included two SSRI's (Paxil and Zoloft), one MAOI (Manerix), and lithium, which I took with Manerix. I also tried clonazepam for sleeping. (My doctor did not tell me that this was an antiseizure medication or that some SSRI medications can cause seizures.) My psychiatrist, a 'specialist' in mood disorders, kept saying "Not quite right? Take more pills." Week after week, adverse 'side' effects worsened as my dose was increased. It was discouraging to worsen from dysthymia to major depression while taking doctor-recommended medications.

Synthetic antidepressants apparently help many people cope with depression but a significant number experience adverse effects. I do not know why these pills did not restore my mood, nor did my caregivers explain. They acknowledged 'side' effects, some related to dose. I asked "Why recommend medications which make sick people feel worse?" Their answer was "Not all depressed people feel worse on antidepressants." Although I am a self-employed accountant in North York, my undergraduate degree included biological and medical science courses. When my doctors did not explain, I remembered my science education and began to ask questions, study, research, and interview healthcare professionals, drug manufacturers, and other depression survivors. I desperately wanted to restore normal mood.

Even while not feeling well, I was able to read, write and learn. My brain's logic circuits seemed to keep working even while my mood control circuits were not upbeat, reliable or consistent. Basically I was in black or blue moods much of the time for no logical reason.

Fearfully, I kept reading, trying to understand and trying to cope. I read more than 150 books about depression, psychology, self-help topics and various medical aspects of brain function. There were many interesting references to the use of herbs, vitamins, amino acids, and minerals in the treatment of depression.[1,2,3,4] I found information about a supplement used in Europe by conventional doctors who prescribe it to thousands of people

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with depression and cognitive deficiencies, typically associated with old age. (I was then 44, not exactly geriatric, although while depressed, I felt 100). I did not believe that a supplement could help me. The possibility seemed too good to be true.

I knew nothing about herbs and several doctor clients of my accounting practice said that they would not recommend them. A pharmacist client offered cautions that herbs might be difficult to use, hard to determine dosage, and dangerous due to possible lack of quality control during processing. My skepticism was based on ignorance. I should have known better. I had good results several years earlier taking feverfew for relief of migraine. Feverfew took away the pain after a migraine began. I was surprised and pleased to experience good results several days after starting to take small doses of ginkgo biloba. A mild GI upset prompted me to take odourless garlic with the ginkgo, both in small doses three times a day while recording my progress. I also started to take valerian at night for sleeping and that seemed to help.

The three natural supplements together cost 1/8 the price of synthetics. I am self-employed with no drug plan so it was helpful to find effective, low-cost natural supplements with no adverse side effects. Over the past 10 months, I gradually adjusted my dose. During the day I take five to six small doses of ginkgo biloba, with odourless garlic. The ginkgo comes in capsule form and the bottle states that there are 400 mg in each capsule: 300 mg ginkgo biloba leaves and 100 mg 8:1 ginkgo biloba extract. I divide each capsule into six doses using empty capsules purchased at my local health food store. My total daily dose of gingko biloba extract is approximately 135 mg I start with a 33 mg (of 1/3 capsule) in the morning and thereafter, every two hours, I take a 17 mg. 1/6 capsule of gingko. This helps me to maintain normal mood during the day. At night, I take two small valerian tablets. Each valerian tablet contains 110 mg of 5.5:1 valerian root extract and 30 mg of 3:1 hops extract.

I also take small doses of supplemental zinc and B_6 after reading that these can become depleted during episodes of depression. After 10 months taking these supplements, I feel much better. I feel restored - with no adverse effects. I cannot say whether my approach will help other people who suffer with dysthymia or chronic unipolar depression. It seems logical that if European governments allow depressed people to be treated by conventional doctors using ginkgo and other herbal supplements, then supplements could help depressed people in North America. Many doctors here do not seem to know about them.

I do not write this story to give 'false' hope to anyone who suffers with the mood disorder known as depression. I can honestly report that my mood disorder improved while taking supplements for the past nine months and I can share some recent European research that seems relevant. It appears that ginkgo biloba has a beneficial effect on the brain. Like medication, supplements should be taken with care according to doctors' orders. However, it is not easy for patients in North America to get advice from conventional doctors because they are not trained to use herbs here. Practitioners of orthomolecular medicine recommend supplements, typically vitamins and minerals. Apparently conventional doctors receive very little training in nutrition so it is no wonder that they are not able to advise how patients can restore normal mood using nutrients, vitamins, minerals, or herbal supplements.

No doubt any healthcare professional would advise suitable patients to start with small doses of supplements and then gradually adjust to an appropriate maintenance dose. If you are taking synthetic antidepressant medications, you should seek medical advice before starting, stopping or changing any medications and before using any supplements.

There are many treatment plans for depressed people. Most involve synthetic antidepressants, anxiety and sleep medications and / or talk therapies. Natural supplements may help some people recover zest for life and restore normal mood. Apparently most conventional doctors in North America either never learned or forgot about the variety of supplements which have long been known around the world. Supplements can help some depressed people restore normal mood without adverse effects.

A 1995 book[5] by Rita Elkins entitled *Depression and Natural Medicine* outlines nutritional approaches to depression and mood swings. It reviews a range of food supplements which can restore brain function and aid recovery from depression. These include vitamins, minerals, amino acids and herbs. Some are in food; others can be taken as OTC food supplements.

Ginkgo biloba is one supplement. Recent European research indicates that this natural supplement, which mankind has known about for more than 5,000 years, has a multiplicity of beneficial effects on brain function.

Michael Murray' s book[6] *The Healing Power of Herbs* explains that in Germany, "extracts of Ginkgo biloba leaves are registered for the treatment of cerebral and peripheral vascular insufficiency. Ginkgo products are available by prescription and OTC purchase. Gingko extracts are among the three most widely prescribed drugs in both Germany and France, with a combined annual sales figure of more than $500 million dollars. In well designed studies, ginkgo biloba extract (GBE) has displayed a statistically significant regression of the major symptoms of cerebral vascular insufficiency and impaired mental performance. These symptoms include short-term memory loss, vertigo, headache, ringing in the ears, lack of vigilance and depression . Most of the clinical research on ginkgo biloba has utilized a standardized extract, containing 24% ginkgo heterosides (flavone glycosides), at a dosage of 40 mg three times daily. Clinical research shows that GBE should be taken consistently for at least 12 weeks in order to be effective. Although most people report benefits within two to three weeks, some may take longer to respond. In 44 double-blind studies involving 9,772 patients taking GBE, the number of reported side effects was extremely small. The most common side effect, gastrointestinal discomfort, occurred in only 21 cases, followed by headache (7) and dizziness (6)."

These 34 adverse reports from the total of 9,772 people tested represents 0.35%. This is a very low frequency of reported adverse effects. This low percentage suggests that adverse effects tend to be much less common using gingko biloba than synthetic medications. This implies that people can use gingko without fear of negative effects. The adverse effects using synthetics range from 5% to 20% or more per effect. Some 'effects' are simply annoying; others are serious. Details about the type and frequency of adverse effects experienced by people who take synthetic antidepressant medications can be verified by asking a doctor to contact the drug manufacturer for product information. The effects can also be verified by asking a pharmacist to share the relevant information from a CPS drug reference book.

European testing of ginkgo biloba and research results is summarized by De Feudis in the book *'Ginkgo biloba extract (EGb 761) Pharmacological Activities and Clinical Application*s. In this book, experiments by Taylor[7] has shown that EGb 761 inhibits the uptake of norepinephrine, dopamine and serotonin into fractions of rat brain. These findings provide evidence that EGb 761 contains constituents that can inhibit the uptake of biogenic amines. These results sound similar to claims about synthetic SSRI medications which are thought to be selective serotonin reuptake inhibitors in the brain. Medications which modulate neurotransmitters (especially se-

rotonin, norepinephrine, and dopamine) are used for mood disorders.

Theories to explain the apparent 'cognition enhancing' effects of ginkgo biloba apparently relate to several brain signalling functions:

1) Inhibit uptake of biogenic amines; modulate brain neurotransmitters including serotonin, norepinephrine, dopamine and acetylcholine (5-HT, Ne, Da, and ACh are natural messenger chemicals. Research suggests that they are involved in the process of transmitting signals in the brain);

2) Maintain supplies of brain neurotransmitters and the brain's ability to consistently transmit quieting signals during prolonged stress.

3) Inhibit enzyme activities (flavonoid constituents).

4) Inhibit COMT and MAO leading to increased concentrations of catecholamines

5) Enhance release of catecholamines and other neurotransmitters.

6) Activate NMDA-type glutamate receptors.

A highly technical report[8] detailing the effects of ginkgo biloba extract on the central nervous system further explored the Taylor experiment referred to above. Taylor studied the ability of ginkgo biloba extract EGb 761 to modulate norepinephrine, dopamine and serotonin uptake into isolated nerve endings and demonstrated that EGb 761 inhibited uptake. These results provided evidence that EGb 761 contains constituents which are active *in vitro* as inhibitors of biogenic amine uptake. This information may contribute to an understanding of the *in vivo* behavioral effects of the extract. The pharmacological properties of the ginkgo biloba extract (EGb 761) are complex. Their therapeutic activity may involve an interaction or modulation of several biological systems. Behavioral experiments (learned helplessness and behavioral despair paradigms) in normal rats demonstrated that EGb 761 exhibited some anxiolytic and antidepressant activities. There are indications from isolated tissue and *in vivo* studies that suggest a potentiation of norepinephrine activity and down-regulation of B-adrenergic receptors may underlie, in part, some of the psychopharmacological actions of the extract.

Other interesting observations from this report are that EGb 761 may enhance recovery of brain function, improve memory processing, aid circulation, scavenge oxygen radicals (by acting as as an antioxidant) and improve capacity to cope with stress. This report states that "Ginkgo biloba extract (EGb 761) has been part of the French therapeutic arsenal since 1975. For 17 years, EGb 761 has been investigated in a considerable number of research projects aimed at broadening understanding of its activity. These studies have shown that its various constituents are endowed with different activities. In particular, the action of terpenes (ginkgolides and bilobalide molecules specific to this tree) is totally different from that of the flavonoids, some of which are also specific and complementary."

Based on my own experiences with depression, I can suggest that:

1) people who suffer depression should consult healthcare professionals;

2) patients with depression can contact their local College of Physicians and Surgeons or other medical advisory body for names of family doctors, psychiatrists and other specialists.

3) a treatment plan for depression should focus on restoring normal mood, not on masking symptoms of depression with adverse side effects of antidepressant medications. Recording your day to day progress can help your doctor pay attention to the effects of medications. You can ask for lists of adverse side effects for each medication.

4) repeatedly asking your doctor to help you restore normal mood or refer you to one who reports success treating mood disorders.

5) a local mood disorder association can

offer information and support groups.
6) reading about depression can help you focus your own work on recovery.
7) there are a variety of ways to reduce overloads and climb out of the abyss of depression.

If you suffer with a mood disorder, you can survive and you can get better. You have to work to restore normal mood and recover zest for life.

On a personal note, I had a difficult time coping with unipolar depression, dysthymia and episodes of major depression. I learned to survive, restore normal mood and recover zest for life after being down in the dark abyss of unipolar depression. It was hard for me to find supportive healthcare professionals and it was hard for me to accept their advice without question when there was no quick recovery. I still do not have all the answers to my mood disorder. I am better informed after reading about mood disorders and brain systems, studying European research reports, and speaking with others who are suffering with different types of mood disorders. While studying, I developed some unique and practical ideas for coping which has helped a great deal in overcoming depression.

References

1. Pfeiffer C: *Nutrition and Mental Illness: An Orthomolecular Approach to Balancing Body Chemistry*. Rochester, VT, Healing Arts Press, 1987.
2. Rector-Page, L: *The Energy Crunch and You.*. Sonora, CA, Healthy Healing Publications, Inc., 1993.
3. Slagle, P: *The Way Up From Down*. New York, St. Martin's Paperbacks, 1987.
4. Baumel S: *Dealing With Depression Naturally*. New Canaan, Conn., Keats Publishing, 1995.
5. Elkins R: *Depression and Natural Medicine: A Nutritional Approach to Depression and Mood Swings*. Pleasant Grove, Utah, Woodland Publishing.1995.
6. Murray, M: *The Healing Power of Herbs: The Enlightened Person's Guide to the Wonders of Medicinal Plants*. Rocklin, CA, Prima Publishing, 1995.
7. Taylor JE: In Vitro Inhibition of 5-HT, NE, and DA uptake by an extract of the Ginkgo Biloba Plant. In ed. DeFeudis F V: *Ginkgo Biloba Extract (EGb 761): Pharmacological Activities and Clinical Applications*. Paris, Elsevier. 1991.
8. Christen Y, Costentin J, Lacour M: *Effects of Ginkgo Biloba Extract (EGb 761) on the Central Nervous System*. Paris, Elsevier, 1992.

Authors' Note

I am writing an easy to understand book about depression, which will be available from the Canadian Schizophrenia Foundation. The proposed title is *Living With Depression*:(*The Bad Mood Disorder) A Survivor's Guide*. Also available, *Unipolar Depression - Survivor's Kit* has 37 ways for survivors to work on restoring their zest for life.