

## **Seasonal Affective Disorder (SAD)**

Research shows that up to 1 in 5 Americans suffer from at least a mild form of Seasonal Affective Disorder (SAD) --- and among older folks, the incidence is much, much higher than that. With inadequate full spectrum light, probably at least 1 in 4 Americans are impaired during the months when the days are shorter and the sun's rays are at a low angle --- feeling melancholy, fatigued, and significantly unmotivated. Over half a million Americans suffer from the most severe form of SAD --- leading to major depression, anxiety, and even suicide.

Symptoms of Seasonal Affective Disorder, including depression, pain sensitivity (such as fibromyalgia), and carbohydrate craving, are all increased by both serotonin and melatonin. SAD is a multifaceted disorder --- a constellation of causes exacerbated by deficient full spectrum light. But one major factor is an excess of the enzyme (MAO), or an excess of the enzyme (IDO), stimulated by pro-inflammatory cytokines. These enzymes are critical to the serotonin/melatonin/Quinolinic Acid/Nicotinamide pathway.

It has been shown beyond all doubt that the depression and lethargy of SAD is fundamentally associated with inadequate natural light and/or excess unnatural light. It is reasonable to conclude that virtually all cases of depression and lethargy include some element of Seasonal Affective Disorder. Picture the millions of poor souls who are dependent upon SSRIs and other feel-good drugs just to make life tolerable. How many of these people spend at least 22 out of 24 hours either in darkness or in un-natural indoor lighting (not to mention the hours spent in front of the TV or computer monitor)?

Suppose you get these people on the NUTRI-SPEC Fundamental Diet (Eat Well – Be Well) to restore glycemic control, and to reduce INFLAM-AGING associated with Prostaglandin Imbalance. Are you going to have an impact on their depression, anxiety, and lethargy? You betcha. Now, suppose you also reduce their ImmunoNeuroEndocrine Stress by supplementing with the ideal Immuno-Synbiotic. Further suppose you get them to take their eyeballs for a walk in the full spectrum natural light for at least 20 minutes per day (at least 2 ½ hours every week, divided among as many days as possible)? You will have lifted the dark cloud that surrounds them and distorts their view of life.

Natural light is ideal not only for individuals with SAD, but for those suffering from depression of any type. Regrettably, many individuals, including those who need it most, cannot or will not get adequate sunlight. So an alternative is Bright Light Therapy (BLT). BLT for one hour daily has shown absolutely remarkable results for all forms of depression, including the depression of Bi-Polar Disorder --- which is completely unresponsive to medical intervention

(which, regrettably, does not stop the Medicine Men from loading these unfortunate patients with anti-depressants that research shows are ineffective).

Zhou, et al. Clinical efficacy, onset time and safety of bright light therapy in acute bi-polar depression as an adjunct of therapy. J Affect Disord, 2017. ----- This study demonstrates that BLT is an effective treatment for Seasonal Affective Disorder and non-seasonal depression --- and then goes on to demonstrate its efficacy in Bi-Polar Disorder. The test participants were given one hour daily of Bright Light Therapy, and other subjects with Bi-Polar Disorder served as the control group receiving one hour dim red light therapy. 78% of the test group showed significant improvement of depression with a mean onset of improvement after 4 days.

Sit DK, et al. Adjunctive bright light therapy for bi-polar depression. AM J Psychiatry, 2017. ----- After 6 weeks of 1 hour daily BLT, the remission rate for depression in these Bi-Polar individuals was 68%, and the entire test population achieved significantly lower depression scores (Hamilton Depression Scale with Atypical Depression Supplement).

Do you begin to appreciate the significance of light in maintaining normal brain neurochemicals? BLT, even in Bi-Polar patients, is completely safe --- with absolutely no side effects. Two thirds of the subjects had their depression go into complete remission and depression scores were still improving at the end of these studies --- suggesting benefits might be even greater over longer periods.

The most outstanding feature of these studies is that there is not a single drug in the world that provides such extraordinary benefits for depression --- nor any significant benefits for Bi-Polar depression. In fact, there is not a single drug even approved to treat depression in Bi-Polar patients. Regrettably, most physicians think that all depression is the same, and simply give their Bi-Polar patients the standard drugs for mood disorders. Sadly, drugging according to Standards of Care yields benefits that are barely statistically significant, even in ordinary depression, and do virtually nothing of clinical significance for Bi-Polar depression.

**Who is SAD?**