

## **Physiological Causes for Winter Blues: Seasonal Affectation Disorder (SAD)**

Feeling blue during the darkness of winter has a physiological basis, which is called Seasonal Affectation Disorder (SAD). Some surveys estimate that 64% of Americans feel better moods in the spring and summer months as opposed to the winter. Some of the symptoms are: lethargy, feeling sad or down, sleeping more than normal, craving sweets and eating more than normal, moody, having trouble concentrating.

### **Physiological Cause**

SAD is caused by the lack of sunlight in winter months and it is reported to affect some 25 million Americans. Sunlight affects one of our endocrine glands called the pineal gland, located inside our forehead. The pineal gland produces a hormone called melatonin, which affects our sleep rhythms. (That's why melatonin is taken for "jet lag.") While increased levels of darkness is Mother Nature's way of getting us to receive more rest, some people find that their emotional mood swing can interfere with personal relationships and business dealings.

Our melatonin levels normally rise and fall with the changes in light and darkness. The presence of sunlight also affects our serotonin levels, which regulate our moods. The evidence that the melatonin-serotonin system is linked with moods correlates with the fact that the Scandinavian countries have the highest rate of suicides. (These countries experience extended darkness in winter months.)

### **Therapeutic Light**

As we spend extended time indoors in the winter, we are only exposed to artificial light bulbs, which do not produce a full-spectrum of light rays like the sun does. Instead, they produce a partial spectrum, which does not affect the pineal gland as natural sunlight does. (This is a main reason why people take winter vacations to sunny places.)

Full-Spectrum lighting is made specifically for the purpose of providing therapeutic light to sensitive individuals who strongly react to low levels of sunlight. No other kinds of light bulbs contain the entire spectrum of visible colors, infrared and ultraviolet rays as Full-Spectrum products. Full-spectrum products are available on the Internet from a variety of suppliers.

Full-Spectrum light therapy requires several hours of exposure daily to boost the melatonin-serotonin system adequately.

### **Other Ways To Affect SAD**

- Vitamin D is produced in our bodies when we are exposed to sunlight (hence it is called the "sunshine vitamin"). This vitamin is also linked with higher levels of serotonin, thus elevating one's moods. Supplementation of Vitamin D<sub>3</sub> is considered to aid in boosting the production of melatonin-serotonin system.
- Frequent exercise is documented to boost serotonin levels, acting as a natural anti-depressant.
- If all else fails, see a physician for obtaining anti-depressant medications that boost serotonin levels to alleviate depression.