What are Seasonal Affective Disorder and Winter Depression?

The long nights and dull days of winter can cause some people to experience feelings of low mood; this is called "seasonal affective disorder" (or SAD). A milder version of SAD is known as "winter depression". SAD is characterized by the inability to feel happy or to experience pleasure (depression), increased need for sleep, profound tiredness (fatigue), increased appetite (particularly for carbohydrate-rich foods, such as bread, potatoes, pasta, etc.) and weight gain during the winter months.

Who gets SAD?

SAD affects people living in countries that have long, dark winter months. It is extremely rare in those living near the Equator, where daylight hours are long and there is far more sunny weather. In Canada and in the UK, up to 4% of the population have SAD, compared to 2% of the US population. The frequency increases in countries closer to the Artic; 9% of the population on Finland and almost 10% of people living in Alaska suffer form SAD. Anyone can develop SAD and at any age; the common age of onset is between 18 and 30 years old. Two to four times as many women suffer from SAD than men.

What causes SAD?

Seasonal affective disorder is believed to be caused by an imbalance in the production of a chemical (called a hormone) that affects the area of the brain that triggers sleep. Production of this 'sleep hormone' (called melatonin) is usually 'turned off' in the morning in response to increased light levels, and 'turned on' again at night. The 'sleep hormone' (melatonin) levels of people with seasonal affective disorder do not fall in the morning, and so they continue to feel very tired and sleepy all day.

What are the common symptoms of SAD?

Symptoms usually begin between September and November, continuing until springtime (i.e. March to April). Symptoms include the following (sufferers may not have all of these symptoms);

- Depression (low mood) – feeling miserable, guilty, despairing.
- Tiredness (lethargy / fatigue).
- Sleep problems – inability to wake up and feel alert.
- Overeating – craving sweet foods and carbohydrates (bread, potatoes, pasta, etc.).
- Weight gain – from overeating.
- Loss of sexual interest.
- Desire to avoid social contact.
- Anxiety – feeling tense and stressed.

People with winter depression also usually feel tired and sleepy and may eat too many sugary/carbohydrate-rich foods, but they do not suffer from significant depression or anxiety.
BIOPTRON Light Therapy in SAD

The light intensity generated by BIOPTRON Light Therapy devices are equal to or greater than those produced by conventional light boxes;

- **BIOPTRON Compact III** = 10,000 to 22,000 lux.
- **BIOPTRON Pro** = 10,000 to 20,000 lux.
- **BIOPTRON 2** = 13,000 to 14,000 lux.

Thus, BIOPTRON Light Therapy is ideal for use in the treatment of SAD and winter depression. And BIOPTRON Light Therapy devices have the additional advantage in that they can be used to relieve symptoms from many other diseases and health problems.

What is BIOPTRON Light Therapy?

Light is a form of energy and has ‘wave-like’ properties; the difference between the various colours of light is determined by their wavelength. Light has been used as a healing tool since ancient times. Scientists now have a better understanding of which components of natural light are useful in the stimulation of healing. This has led to the development of optical devices to produce various types of ‘medically useful’ light, such as the BIOPTRON Light Therapy (BLT) System.

What effect does BIOPTRON Light Therapy have on the body?

BIOPTRON Light Therapy devices emit light containing a range of wavelengths that correspond to visible light plus infrared radiation, both of which have been reported to stimulate biological reactions. Importantly, no harmful ultraviolet (UV) radiation is present in BLT.

When the BLT device is held over the skin surface, energy from the emitted light penetrates the underlying tissues. This produces a biological response, called photo-biostimulation, causing various reactions within these tissues that may result in the reduction of pain and promotion of healing.

How do I use BIOPTRON Light Therapy if I have SAD?

It is so simple! The patient should place the BIOPTRON Light Therapy device on a table or desk, turn the device on and then sit (at a distance of 60 to 90 cm) facing the light for around 30 minutes per day. The patient does not need to look directly at the light. The patient can also carry out normal activities, such as watching TV, reading, knitting, etc., while enjoying BIOPTRON Light Therapy.

BIOPTRON Light Therapy should be used every day during autumn and winter for it to be effective in treating SAD.

What treatment is available for people suffering from SAD?

The main treatment for SAD is bright light therapy; this is effective in more than 85% of diagnosed SAD cases. Light therapy works best when given in the early morning (between 06.00 and 08.00 hours); the increased light levels are believed to cause a reduction in ‘sleep hormone’ (melatonin) production and, thus, reduce the desire to sleep during the daytime. Bright light therapy is supplied via specially made “light boxes” that supply high doses of intense white light. Conventional light boxes provide doses of approximately 10,000 light units* (called a lux) and daily treatment periods of 30 minutes are considered sufficient. Light boxes vary in cost but, once purchased, they can be used for many years. [* For comparison, indoor light is around 500 lux, outdoor light (cloudy day) is up to 5,000 lux and mid-day summer sunlight can reach at least 50,000 lux.]

Some people with severe SAD may also require drug treatment using a type of anti-depressant medication called **selective serotonin reuptake inhibitors** (or SSRIs). Common types of SSRI include sertraline, paroxetine and fluoxetine. These drugs can be very effective but they can also have side effects, and the patient will need to get a supply from his/her doctor every winter.

BIOPTRON LIGHT THERAPY is a new and effective treatment for relieving the symptoms of Acne.

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