Your lifestyle solution

Your Monthly Update

Dear Colleague

Welcome to the December 2009 newsletter from Pure Bio Ltd.

Appropriately, with the shortest day almost upon us, the topic for this month is an update on Seasonal Affective Disorder (first covered in 2005).

Office Hours over the Christmas Period:

Please note that the office will be open at the following times during the Christmas and New Year period:

Thursday 24th December 2009	09.00 – 12.00
Friday 25th December 2009	**CLOSED**
Monday 28th December 2009	**CLOSED**
Tuesday 29th December 2009	normal office hours
Wednesday 30th December 2009	normal office hours
Thursday 31st December 2009	09.00 – 12.00
Friday 1st January 2010	**CLOSED**

Normal office hours will resume on **Monday 4th January 2010.**

Orders will, as usual, be sent out using first class business mail, but please allow ***at least*** 3 extra working days for deliveries to reach their destination during this period.

All of the staff at Pure Bio would like to take this opportunity of thanking you for your much valued custom over the past economically-challenging year; and to

extend to you and your families and staff the very warmest wishes for a happy and peaceful Christmas season.

Don't forget that orders can be placed on our website on www.purebio.co.uk at any time during the Christmas period.

We always welcome feedback and suggestions.

Seasonal Affective Disorder (SAD)

SAD affects millions of people every winter between September and April, especially from December to February.

SAD is caused by a biochemical imbalance in the hypothalamus due to the shortening of daylight hours and consequential loss of sunlight during the winter months.

Symptoms:

- **Sleep problems** - oversleeping but not refreshed, cannot get out of bed, needing a nap in the afternoon
- **Overeating** - carbohydrate craving leading to weight gain
- **Depression, despair, misery, guilt, anxiety** - normal tasks become frustratingly difficult
- **Family / social problems** - avoiding company, irritability, loss of libido, loss of feeling
- **Lethargy** - too tired to cope, everything an effort
- **Physical symptoms** - often joint pain or stomach problems, lowered resistance to infection
- **Behavioural problems** - especially in young people

A diagnosis of SAD can be made after 2 or more consecutive winters of symptoms.

The official figure states that around 2% of people in Northern Europe suffer with SAD. However, many more (10%) suffer milder symptoms (sub-syndromal SAD or the Winter Blues). Across the world the incidence increases with distance from the equator, except where there is snow on the ground, when it becomes less common. More women than men are diagnosed as having SAD. Children and adolescents are also vulnerable.

Protocol Summary

Ranking	Nutritional Supplements	Botanical Medicine
Primary		Valerian
Secondary	5-HTP Melatonin	St John's wort
Other	Magnesium	American scullcap

	Vitamin B12	Bitter orange Catnip Chamomile Hops Lavender Lemon balm Passion flower

Primary – Reliable and relatively consistent scientific data showing a substantial health benefit.

Secondary – Contradictory, insufficient, or preliminary studies suggesting a health benefit or minimal health benefit.

Other – An herb is primarily supported by traditional use, or the herb or supplement has little scientific support and/or minimal health benefit.

Causes

Not surprisingly, SAD is more common in the northern latitudes, which get fewer daylight hours during the autumn and winter months. The lack of sunlight affects hormone levels, especially that of melatonin, which is higher than normal in SAD subjects. Incandescent and fluorescent artificial lighting is deficient in the complete, balanced spectrum of sunlight needed by the body. Exposure to this type of lighting is not only associated with depression, but also with chronic fatigue and a suppressed immune system. *SAD should not be confused with fatigue that is more common in the winter months.*

Dietary Modification

Increased consumption of vitamin C can help to counteract fatigue and listlessness during and immediately after a long winter. Citrus fruits, kiwi, broccoli and brussel sprouts are particularly good sources of vitamin C .

It is advisable to avoid red meat and spicy, fried or salty foods which all place high demands on the gastro-intestinal system, depleting minerals and increasing fatigue.

Caffeine is a stimulant. The effects of caffeine can last up to 20 hours, so some people will have disturbed sleep patterns even when their last cup of coffee was in the morning. Besides regular coffee; black tea, green tea, cocoa, chocolate, some soft drinks, and many over-the-counter pharmaceuticals also contain caffeine.

Eating carbohydrates before bed can significantly increase levels of serotonin, which is known to reduce anxiety and promote sleep.

Food allergy may also contribute to insomnia. In a trial involving eight infants, chronic insomnia was traced to an allergy to cow's milk. Avoidance of milk resulted in a normalization of sleep patterns.

Lifestyle Modification

A steady sleeping and eating schedule combined with caffeine avoidance and counselling sessions using behavioural therapy has reduced insomnia for some people, as has listening to relaxation tapes.

The effect of exercise on sleep has not been well studied. However, some healthcare practitioners recommend daily exercise as a way to reduce stress, which in turn can help with insomnia.

A naturopathic therapy for insomnia is to take a 15 – 20 minute hot Epsom-salts bath. One or two cups of Epsom salts (magnesium sulphate) in a hot bath are thought to act as a muscle relaxant. Even a simple hot bath will aid sleep, since melatonin production increases with rising body temperature, thereby inducing a state of sleepiness.

Smokers are more likely to have insomnia than non-smokers.

Nutritional Supplement Treatment Options

Melatonin is a natural hormone that regulates the human biological clock. The body produces less melatonin with advancing age, which may explain why elderly people often have difficulty sleeping and why melatonin supplements improve sleep in the elderly.

L-tryptophan has been used successfully for people with insomnia, presumably because it is converted to the chemical messenger, serotonin. According to one preliminary trial, L-tryptophan supplementation was 100% effective at promoting sleep in people who wake between three to six times per night, but not effective at all for people who only wake once or twice; nor in people who doze on and off throughout the night in a state blurred between sleep and wakefulness. 5-Hydroxytryptophan (5-HTP) is also converted into serotonin and is assumed to have the same effect.

Vitamin D is well known for its effects on helping to maintain normal calcium levels, but it also exerts influence on the brain, spinal cord, and hormone-producing tissues of the body that may be important in the regulation of mood. In a double-blind study, people with SAD were randomly assigned to receive either 100,000 IU of vitamin D one time only or two hours of bright-light therapy every day for one month. After one month, researchers observed a significant improvement in the level of depression within the group that received vitamin D, but not in the group given light therapy. The participants suffering from SAD all showed pre-treatment vitamin D blood levels to be low.

High dose vitamin D treatment should be supervised by a medical practitioner to assure that the amount of vitamin D used is high enough to be effective, but not so high as to cause adverse effects.

Some people have difficulty sleeping because of period limb movements during sleep (PLMS) or restless legs syndrome (RLS). In a preliminary trial, people with PLMS or RLS who suffered from insomnia had a significant improvement in sleep efficiency after supplementing with magnesium (about 300 mg each evening for four to six weeks).

In two small preliminary trials, people with insomnia resulting from disorders of the sleep-wake rhythm improved after supplementing with vitamin B12 (1,500 to 3,000 mcg per day).

GABA (Gamma Amino-Butyric Acid) is the main inhibitory neurotransmitter in the brain. It decreases neuronal activity and thus assists in inducing sleep, uplifting mood and reducing anxiety. Co-factors required for the production of GABA are vitamins B1, B2, B3, B5, B6, zinc and lipoic acid.

Taurine supports neurotransmitter function, including melatonin and GABA. Low levels may cause anxiety, hyperactitivty and poor brain function.

Botanical Treatment Options

St. John's wort, an herb well known for its antidepressant activity, has been examined for its effectiveness in treating SAD. In a preliminary trial, patients with seasonal depression were given 900 mg per day of St. John's wort in addition to either bright light (3,000 lux for two hours) or a dim light (300 lux for two hours) placebo. Both groups had significant improvement in depressive symptoms, but there was no difference between the groups. The authors concluded that St. John's wort was beneficial with or without bright light therapy.

Herbal remedies have been used safely for centuries for insomnia. In modern herbal medicine, the leading herb for insomnia is valerian. Valerian root counteracts difficulty in getting to sleep and increases deep sleep and dreaming. Valerian does not cause a morning "hangover," a side effect common to prescription drugs in some people. A double-blind trial found that valerian extract (30 minutes before bed for 28 days) is comparable in efficacy to oxazepam – a commonly prescribed drug for insomnia. In a separate double-blind trial, the same amount of valerian extract was found to improve subjective assessments of sleep quality and certain aspects of brain function during sleep as well.

Valerian root can be combined with other mildly sedating herbs e.g. Chamomile, hops, lemon balm, American skullcap and catnip. Chamomile is a particularly good choice for younger children whose insomnia may be related to gastrointestinal upset.

Passion flower is used for its ability to decrease anxiety and prolong sleep-time. It is also known for its ability to decrease pain and reduce muscle spasms. Although it is a central nervous system depressant, it does not leave people feeling groggy.

Bacopa monneira – an Ayurvedic herb – is recognised as a brain enhancer and is traditionally used to reduce anxiety levels, mental fatigue and enhance memory span. Bacopa increases serotonin levels.

Homeopathy

An experienced homeopath should be consulted to assist in the treatment and side-effects of SAD.

Tissue salts

Take 4 tablets under the tongue three times daily for one or two weeks.

- Nat mur is helpful for depression with a need to be alone and weep.
- Kali phos is useful for an overtaxed nervous system, causing irritability, needless worry and sleeplessness.
- Use Calc phos when depression is associated with general debility, wandering thoughts and anaemia.

Integrative Options

Acupuncture may be helpful for insomnia, possibly by increasing production of calming neurotransmitters such as serotonin and other substances. A preliminary trial found one acupuncture treatment daily for seven to ten days resulted in complete recovery of normal sleep in 59% of patients and partial recovery in 21%. A controlled trial treated patients with either acupuncture or fake acupuncture (insertion of needles at non-acupuncture points). The patients receiving true acupuncture had significant improvements in a laboratory measure of sleep quality compared to the placebo group.

Light Therapy - Diminished sunlight exposure in winter contributes to changes in brain chemistry and plays a role in seasonal mood changes. Many studies show the benefit of light therapy in the treatment of SAD. In a controlled trial, 96 patients with SAD were treated with light at 6,000 lux for 1.5 hours in either morning or evening, or with a sham negative ion generator, which was used as the placebo. After three weeks of treatment, morning light produced complete or near-complete remission for 61% of patients, while evening light helped 50%, and placebo helped 32%. Another study similarly found morning light to have more antidepressant activity than evening light for people with SAD. This study also found that patterns of melatonin production were altered in seasonal depression, and that morning light therapy shifted this disturbed pattern more toward those of the control subjects who did not have seasonal depression.

- Blood flow to certain regions of the brain was also measured after light therapy and was shown to be increased in seasonal depression patients who

benefited from the light therapy. The increase in regional brain blood flow did not occur in those patients who did not respond to the light therapy.

- Light therapy begun prior to the onset of winter depression appears to have a preventive effect in people susceptible to SAD.
- A review of clinical trials of light therapy for SAD concluded that the intensity of the light is related to the effectiveness of the treatment. A higher response rate was seen in trials where light intensity was greater, compared with trials that used light therapy of lower intensity.
- A study of the adverse side effects from high-intensity light therapy found them to be common, mild and brief. Among people who underwent brief treatment with 10,000 lux, 45% experienced side effects such as headaches and eye and vision changes. Described as mild and temporary, they did not interfere with treatment.

Dawn simulation is a form of light therapy involving gradually increasing bedside light in the morning. In a comparison study, dawn simulation using 100–300 lux for 60–90 minutes every morning improved symptoms of SAD similarly to bright light therapy using 1,500–2,500 lux for two hours every morning.

A negative ionizer is a device that emits negatively charged particles into the air. Negative air ionization may be useful in treating SAD. One double-blind trial compared the benefits of high-density negative ionization, providing 2.7 million ions per cubic centimetre, and low-density negative ionization, providing 10,000 ions per cubic centimetre, for people with SAD. Atypical depressive symptoms improved by 50% or more for 58% of patients receiving the high-density ionization for 30 minutes daily, while only 15% of those receiving low-density ionization had 50% or greater improvement. There were no side effects, and all of the patients who responded to the therapy relapsed when ionization was discontinued.

A daily walk outdoors every day in the winter months is beneficial for sufferers of SAD, without the use of dark glasses, prescription glasses or contact lenses. Even on cloudy days, the benefit of exposure to sunlight and fresh air will result in a more positive mental attitude.

Tracy S Gates

Director

PURE BIO LTD.

01403 730342

info@purebio.co.uk