

by Linda Milo Ohr

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Pouring on a State of Peace and Calm

While writing this month's column, I couldn't get the 1980s-era Frankie Goes to Hollywood song "Relax" out of my head. And I couldn't pass on the opportunity to mention this in the article. Maybe the band was on to something. Flash forward almost 30 years from when this song debuted, and we see that today's society does indeed need to relax, slow down, and de-stress.

"Due to the alarming rate of individuals currently affected by insomnia and stress, consumer demand for products that promote relaxation is growing, especially in the beverage industry," says Randal Kreienbrink, Director of Marketing, BI Nutraceuticals, Long Beach, Calif., (www.binutraceuticals.com). "This increase in relaxation beverages can primarily be attributed to energy drinks; their popularity has and will continue to have a spillover effect on other functional beverages including its opposite, the relaxation beverage."

Popular relaxation ingredients like botanicals, gamma-aminobutyric acid (GABA), L-theanine, and 5-hydroxytryptophan can be found in relaxation supplements such as *miniCHILL*®, a non-drowsy, stress-relief shot from Stevenson Products LLC, Flushing, N.Y. (www.minichill.com). GABA is a neurotransmitter that blocks impulses between nerve cells in the brain and is believed to have a calming, relaxing effect on the nervous system. Another ingredient, 5-hydroxytryptophan increases the synthesis of serotonin, a brain chemical that affects mood and sleep. Here is a look at some other relaxation botanicals and L-theanine.

Botanicals

Some of the top botanicals that are currently used in products to promote relaxation or reduce stress include chamomile, passionflower, and valerian, says Kreienbrink. BI offers these botanicals as well as some that are less well known such as ashwagandha and gotu kola.

"In general, I think botanicals will make more of a presence in relaxation products because they inherently contain calming effects," notes

Kreienbrink. Ashwagandha is an adaptogen, minimizing the effects of stress on the immune system. Chamomile is a mild sedative and muscle relaxant. Gotu kola enhances cognitive function including memory and alertness, and it reduces mood disorders. Passionflower is a sedative. Valerian is an adaptogen and muscle relaxant, explains Kreienbrink. "In the relaxation market, products fortified with melatonin, L-theanine, etc., are dominating, but with consumers realizing the benefits of whole foods, they are not just seeking fortified products anymore. Consumers are now looking for

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foods and beverages that incorporate ingredients that inherently have health benefits," he adds.

A plant extract derived from lemon balm leaves of the species *Melissa officinalis* L., *Cyracos*® from Naturex, South Hackensack, N.J. (www.naturex.com), acts simultaneously on stress and its associated symptoms, like sleep disorders, thanks to its specific composition. According to the company, the anti-stress activity of *Cyracos* has been demonstrated after 15 days of supplementation with 300 mg of the ingredient taken twice a day.

The manufacturing process of *Cyracos* was thoroughly studied to guarantee an extract preserving all the active components of the lemon balm aerial parts. *Cyracos* has a constant content of hydroxycinnamic acids guaranteeing its quality. Several different compounds in the ingredient have been shown to have specific properties. An *in vitro* test showed that rosmarinic acid lowered the activity of an enzyme and increased the content of GABA in the central nervous system, which has been linked to positive effects on mood. Other compounds present in *Cyracos* such as ursolic acid and oleanolic acid have the same effect.

To validate the anti-stress activity, Naturex performed a clinical study on its own extract, including 20 people ages 18–70 who demonstrated

Beverages that contain an array of botanicals may help promote a state of relaxation.

Photo courtesy of Stevenson Products LLC



Pouring on a State of Peace and Calm continued...



The amino acid L-theanine when formulated in relaxation drinks is said to help reduce stress without making consumers drowsy.
Photo courtesy of The Chill Group Inc.

symptoms of anxiety and suffered from sleep disturbances. The group was supplemented with 300 mg of *Cyracos* twice daily for 15 days. After two weeks of supplementation, the subjects who consumed *Cyracos* showed a reduction of 18 percentage points in the signs of anxiety, a reduction of 15 percentage points of stress-associated symptoms, and a reduction of 42 percentage points of initial insomnia. Nearly all of the subjects had a reduction in stress and/or insomnia.

A self-affirmed GRAS and patented botanical ingredient, *Zembrin*® from PLT Health Solutions Inc., Morristown, N.J. (www.plthealth.com), is a plant extract derived from controlled cultivation of an elite selection of *Sceletium tortuosum* herb. *Zembrin* has been developed and produced as an environmentally sustainable and socially responsible initiative. Reported benefits of *Zembrin* include promotion of a calm mood and relief from stress and tension. It has recognized mechanisms of action involved in feelings of relaxation, calm, and stress reduction. The activities have been demonstrated for the whole extract and also for the isolated key markers present in

the extract, providing a rationale for the standardization to selected markers.

Nell et al. (2013) evaluated the safety and tolerability of two doses (8 mg and 25 mg once daily) of *Zembrin* in 37 healthy adult subjects over a three-month period. The subjects were recruited from the general population. Both doses of *Zembrin* were well-tolerated. Unsolicited positive effects on well-being were noted in patient diaries by some participants taking *Zembrin*, including improved coping with stress and sleep.

L-theanine

A patented pure form of the amino acid L-theanine, *Suntheanine*® from Taiyo International Inc., Minneapolis, Minn. (www.taiyointernational.com), is not an extract of green tea, but rather is produced via a patented fermentation process that mimics the natural process in green tea leaves resulting in a 100% pure L-isomer-theanine. Human clinical trials have shown that *Suntheanine* promotes an alert state of relaxation without drowsiness, as indicated by an increase in alpha brain waves and a decrease in beta brain waves. Alpha brain waves are associated with a relaxed yet alert and focused brain activity. Beta brain waves are markers of a more excited and non-focused state.

Yoto et al. (2012) showed that L-theanine not only reduced anxiety, but also attenuated the blood-pressure increase in high-stress-response adults. Fourteen subjects each underwent three separate trials in which they orally took either L-theanine (200 mg) + placebo, caffeine (100 mg) + placebo, or placebo only. The effects on mental task performance and physiological activities under

conditions of physical or psychological stress were observed. The results showed that L-theanine significantly inhibited the blood-pressure increases in a high-response group, which consisted of subjects whose blood pressure increased more than average by a performance of a mental task after placebo intake. Caffeine tended to have a similar but smaller inhibition of the blood-pressure increases caused by the mental tasks. The results of the Profile of Mood States test after the mental tasks also showed that L-theanine reduced the tension–anxiety scores as compared with placebo intake.

JUST CHILL® from The Chill Group Inc., Venice, Calif. (www.drinkjustchill.com), is a natural “chill” drink born on the beaches of Southern California. Available in three flavors—Tropical, Rio Berry, and Jamaican Citrus—it includes *Suntheanine* to reduce stress and enhance mood without causing drowsiness. According to the company, its mission is to make the world less uptight and more laid-back, helping people keep their cool in the moments that matter most. **FT**



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