



Caffeine Synergizer



Caffeine Synergizer are natural food ingredients providing caffeine-like beneficial effects, strengthening alertness and performance.

Caffeine Synergizer are mainly used in sports supplements and energy drinks. Energy drinks provide instant energy along with mental and physical stimulation and contain caffeine per definition. Sports supplements replace electrolytes, nutrients, support mental and physical performance as well as recovery and caffeine is one of the frequently used ingredient in sports nutrition.



Market trends

The global energy drink market is indicated to grow at a CAGR of 7.2 %, reaching \$86 billion by 2026. (1)



Both markets follow comparable trends



Market trends

The global sports supplement market is said to grow at a CAGR of 5%, reaching \$10.6 billion by 2026. (2)

Caffeine

Caffeine benefits are as known as the health risk related to excessive caffeine-use, due to media reports and governmental policies. Consequently, consumers are looking for products providing effects, based on healthy caffeine levels plus natural booster ingredients, **caffeine synergizer**.

Lifestyle user

Consumers are looking for nutritional support to boost physical and mental performance as well as emotional wellbeing. Some buy sports nutrition products others try energy drinks. The party drink image of energy drink, as alcoholic night drink for teenagers, is shifting to performance enhancing drinks for adults. Increased income levels and living standards lead to significant more consumers in China and India.

Health effects & appealing formats

Both markets are shifting to innovative delivery formats. Energy gels and gummies to boost endurance are on high demand. Sports nutrition brands launch cookies with high nutritional value. The markets are merging. There are e.g. energy drinks to boost immune and mental benefits or RTD energy powder for muscle recovery.

Gamer - esports

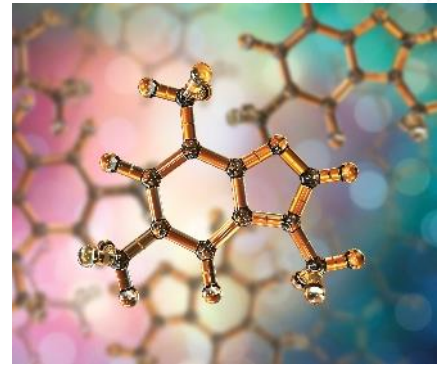
The gaming industry is a lucrative space, for energy drinks and sports nutrition products. Boost focus, fast reaction, demolish stress and good vision are important for gamer, which are mainly millennial and gen Z consumers. Key markets are the U.S., China, South Korea, France, Russia, and Brazil. 80% of gamers consume food and drinks while playing. 26% of gamers in APAC consume energy drinks regularly. China and India being the biggest market.



Caffeine Synergizer

Caffeine

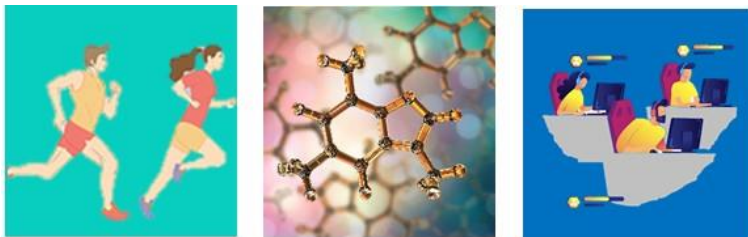
Caffeine is probably the most commonly used psychoactive substance in the world. It has immediate effects on performance and alertness, campaigned by rising heart beat and breathing – some love the feeling, called caffeine rush, some are afraid of getting a heart attack.



Caffeine Regulation

Moderate intake defined by EFSA in Europe as well as by FDA in the U.S. means approx. 400 mg Caffeine per day (3). This amount includes all different sources and a single serving should not exceed 200 mg. By drinking several cups of coffee every day, caffeinated teas, energy drinks, eating chocolates and maybe taking pain medications, it is easy to hit the maximum recommended amount without realizing it.

To protect consumer, label requirements and limits for caffeine depending on food matrix and positioning were set. In Australia energy drinks need to contain minimum 145 mg/L and maximum 329 mg/L. A typical canned energy drink of 250 ml has 80 mg caffeine, which is equivalent to an average cup of instant coffee (4).

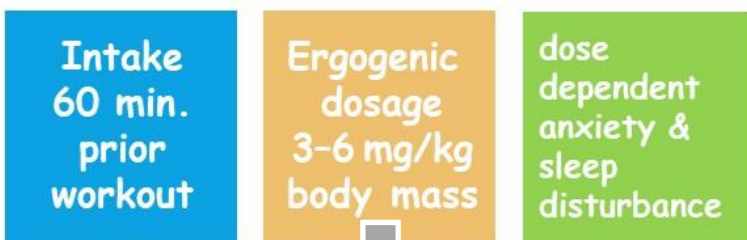


The international society of sports nutrition published a review paper about caffeine & exercise performance (5)

Caffeine & Exercise Performance

issn

international society of sports nutrition
The ISSN1 - Why Go Anywhere Else?



3-6 mg/kg body mass = 210-420 mg/serving, calculated for a classical 70 kg human weight. Regulations do not allow to supply the effective dosage of caffeine in one serving.

- Energy drinks and pre-workouts containing caffeine have been demonstrated to enhance both anaerobic and aerobic performance
- Caffeine may be ergogenic for cognitive function, including attention and vigilance
- Sleep disturbance and anxiety, associated with caffeine ingestion, are dose-dependent.
- Caffeine is ergogenic in doses of 3-6 mg/kg body mass
- Caffeine supplementation is commonly taken 60 min pre-exercise





Bluenesse® is a scientifically proven natural ingredient to support focus, alertness, and cognitive performance, while maintaining a calm and good mood. Furthermore, it helps to balance the stress hormone cortisol. It provides perceptible effects within one hour after intake, which are still measurable after three hours. Consumers can feel the difference. Bluenesse® and caffeine are the perfect fit, supporting tangible nootropic effects while Bluenesse® balances anxiety and due to its longer duration of efficacy impedes the caffeine crash.



Focus



**Fast
reaction**



Cognition



**Calm
mood**



**Stress
balance**

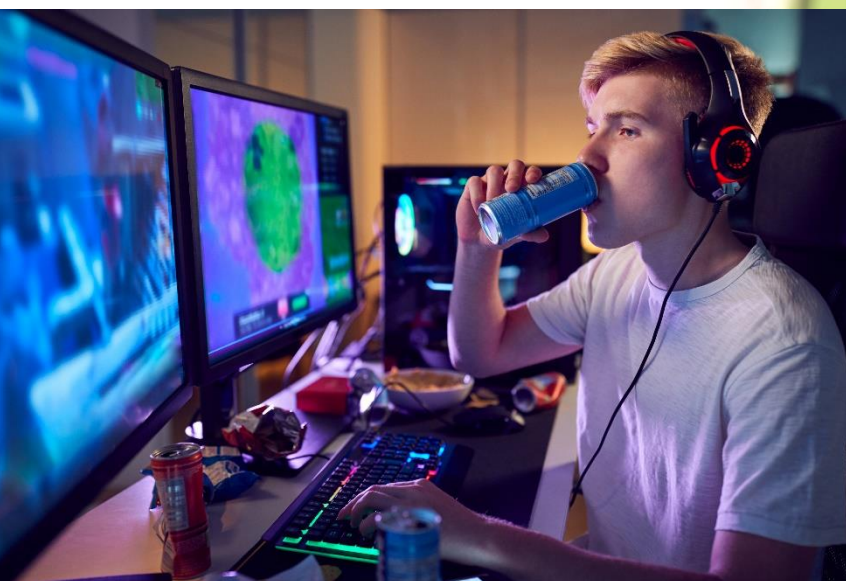


No rush



5h effect

**The perfect fit for
sports nutrition, energy drinks
and esports supplements
to support healthy, reliable performance**



These statements have not been evaluated by FDA and EFSA. The product is not intended to diagnose, treat or cure any disease.

Vital Solutions GmbH, Hausingerstrasse 6, D-40764 Langenfeld, +49 (0) 2173 109 82 02
Info@vitalsolution.biz www.vitalsolutions.biz





Fact sheet Caffeine Synergizer Bluenesse®:

Caffeine-like

- Quick onset of effects
- Nootropic effects to support focus, alertness and performance
- Supports exercise performance, and focus to win

Even better

- 5 hours effect
- Robust calming and anti-anxiety efficacy, balancing caffeine intake associated anxiety, agitation and sleep disturbances
- Improves the ability to cope with stress, by combating daily stressors and cortisol; supporting healthy fat metabolism



Unique Quality:

- Only the highest quality leaves of a special lemon balm breeding line are used for Bluenesse® to ensure the nootropic effects.
- Bluenesse® is a proprietary *Melissa officinalis* (L.) extract, controlled by bioassay-guided efficacy testing and standardized on >6% rosmarinic acid and muscarinic M1 receptor affinity. This is a new dimension of quality control.

Mode of action

- Balancing of neurotransmitter (GABA, Acetylcholine, and Dopamine) concentrations in the brain supporting effective and quick communication between nerve cells in the brain.
- Reduction of stress-induced cortisol level
- Antioxidant
- Effective dosage: 300 mg

Safety

- Natural food ingredient, obtained by solvent-free, gentle water extraction, out of ID verified lemon balm leaves
- Complies with highest quality, stability and traceability standards
- Caffeine-free, stimulant-free, doping substances-free, no hang-over

Science behind

- Several scientific studies demonstrated that Bluenesse® combines the traditional calming and mood enhancing effects with beneficial effects to support cognitive performance, particularly focus, alertness and memory ([6](#), [7](#))
- Patented

Applications

- Bluenesse® is feasible for all kinds of foods or supplements delivery formats
- It is water-soluble and has a peasant herbal taste. Its effective dosage of 300 mg can be easily formulated in ready to drink powders, shots, gels, gummies, and protein powders
- It works well in dairy products, bars and cookies

These statements have not been evaluated by FDA and EFSA. The product is not intended to diagnose, treat or cure any disease.