

Caffeine replacement



Imagine an innovation that replaces caffeine with a clean label ingredient that has none of the negative side effects of caffeine and even works better!

Zynamite® is the healthy way to replace caffeine with a botanical ingredient without the side-effects of caffeine and actually works better than caffeine.

Zynamite® gives sustained mental and physical energy and focus without any negative side effects and it is cheaper than natural caffeine.

What do tired people need? Stressed or fatigued people lack enthusiasm and mostly feel exhausted and desperate. What they desire is a sustained boost of energy that improves physical performance, concentration, attention, alertness and mood.

The problem with caffeine Because of the mental energy and focus provided by caffeine, billions of cups of coffee are consumed daily to assist people to cope. However, caffeine is addictive and most people consume too much of it and suffer from its negative side effects and withdrawal symptoms.

Benefits

- Physical and mental performance**
- + Rapid onset of action
 - + Faster reaction time
 - + Focus and concentration
 - + No jitters, nervousness, Agitation
 - + Easy to use and formulate
 - + Natural and approved in Europe

Caffeine in Sports Products
Many sports products contain caffeine to increase alertness and boost physical energy but these products inevitably lead people to experience jitters, anxiety, irregular pulse, insomnia and nausea - all physical and mental issues for concern, especially for sports performers. Zynamite® is the ideal alternative.

What is Zynamite®?

Zynamite® is Nektium's patent-pending proprietary *Mangifera indica* extract standardized to ≥ 60% mangiferin.

Mangifera indica, the common mango tree, is cultivated extensively in the tropical and subtropical regions of the world. Infusions and decoctions of mango leaves are used extensively in traditional health systems and have been known for centuries for their health benefits.

How does Zynamite® work?

Zynamite® activates brain waves and increases Long Term Potentiation in a remarkably similar pattern to caffeine. While caffeine antagonizes adenosine receptors, Zynamite® acts non-selectively to stimulate brain activity. The key active, mangiferin acts non-selectively to modulate multiple physiological and CNS targets.

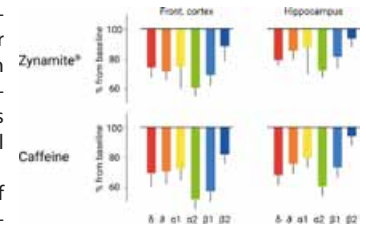
Bio-actives of Zynamite®
The active principle of Zynamite® is mangiferin, a natural flavone polyphenol. Ultra-high-performance liquid chromatography (UHPLC) with photodiode array detection (PDA) is used to provide high-resolution separation, identification and quantification.

Product Features

Botanical origin <i>Mangifera indica</i> mango leaves	Taste Mild taste
Bioactives ≥ 60% mangiferin	Solubility Partly Soluble in Hot Water
Cultivated or wild Cultivated	Recommended serving 100-200mg once to twice a day
Cropping pattern Conventional	Quality GMO free, BSE/TSE free, DNA-barcode, Doping free
Appearance Fine powder	Product certification Kosher, Halal certification upon request
Pack size 25kg	

Mental Activity

Zynamite® has remarkably similar mental activation activity to caffeine in studies of brain electrical activity in vivo. The pattern of electrical activation for both Zynamite® and caffeine are remarkably similar in the brain frontal cortex and in the hippocampus. (Preclinical study, Collaboration with Professor Wilfried Dimpfel, Justus-Liebig-University, Giessen, Germany)

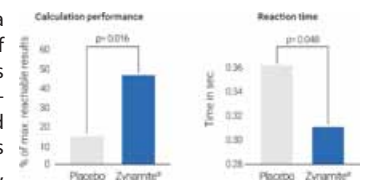


Mental Energy

The effect of a single dose of Zynamite® as caffeine-replacement was tested in 32 participants in a double-blind, randomized, placebo-controlled, 2-armed study with parallel design.

Calculation performance Significantly improved cognitive performance. Reaction time Significantly faster reaction compared to placebo.

(two clinical studies, Collaboration with Professor Wilfried Dimpfel, Justus-Liebig-University, Giessen, Germany)



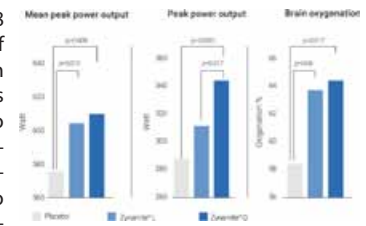
Sport Performance

The effect of 48 hour intake of Zynamite® on performance was tested in two sports formulations in a double-blind, placebo controlled cross-over cycling trial in 30 young physically active athletes.

Mean peak power output reached in each sprint was significantly higher for both Zynamite® formulations compared to placebo. Peak power output developed in the 15-s sprint performed immediately after ischaemia was significantly higher for Zynamite®.

Brain oxygenation measured with spatially resolved near-infrared spectroscopy in the female group of thirteen women was significantly higher for both Zynamite® formulations.

(two clinical studies, Collaboration with Professor Jose Antonio López Calbet, University of Las Palmas, Spain)



References

- Dimpfel, W. et al. Synergy between Mango leaf extract (Zynamite®) and caffeine with respect to stimulation of the central nervous system in rats. Synergy Forum, 9-10 March 2018, Bonn, Germany
- Miriam Gelabert-Rebato, Jose A L Calbet. *Mangifera indica* L. leaf extract (Zynamite®) in combination with luteolin or quercetin enhances VO₂peak and peak power output and preserves skeletal muscle function during ischemia-reperfusion in humans. 23. European College of Sports Science ECSS, 4-7 July 2018, Dublin, Ireland