



Brain health: Feed your mind fill your life

Feed your mind, fill your life with Virtiva® Plus, Mirtoselect®, Enovita®, and Relissa®—a golden quartet of botanical, food-grade supplements produced by Indena. These supplements are clinically verified, and designed to support mental well-being holistically and naturally, using a non-invasive approach.

Maintaining good brain health throughout life is crucial for several reasons: reduces risk of cognitive decline, improves mental well-being, boosts productivity and creativity, and enhances

overall quality of life.

Actually, there are many sources of unhealthy mental and emotional conditions: stress, personal worries, anxiety and bad mood, adverse global events, diet, physical discomforts, social jetlag, use of artificial light and devices. The main outcomes may be lack of sleep, focus decrease, memory loss, low impulse control, low ability to respond to stressors.

Moreover, it is proven that similar conditions are often linked to microcirculation discomforts. Microcirculation is composed of prearterioles and arterioles regulating blood flow, leading to capillaries allowing the exchange of gases, nutrients, hormones, and other molecules.

Working on such evidence, Indena has identified multiple high quality extracts, based on science and produced following high quality standards.

Virtiva® Plus is a proprietary synergistic formulation between *Ginkgo biloba* L. standardized alcoholic extract (about 25%) and lecithin (sunflower origin: about 75%), containing 20% phosphatidylserine, exploiting the synergy between these two nootropic agents. It's standardized to contain by HPLC: ≥5% ginkgoflavonglycosides, ≥0.5% ginkgoterpenes, ≥12% phosphatidylserine. *Ginkgo biloba* is a plant traditionally used in China since the most ancient times to improve mental functions and its bioactives are known to deliver benefits to vascular health.

Clinical evidences show that a single dose of Virtiva® Plus 480 mg has a significant effect on mental and memory performance in young subjects, particularly through consolidation of working memory and speed memory¹. No such benefits are evident for either *Ginkgo biloba* leaves

standardized extract as such (GBE) or its combination with phosphatidylcholine, thus confirming the synergistic interaction between GBE and phosphatidylserine. As a result, Virtiva® Plus effectively supports memory, learning, vocabulary skills, and concentration and can play an important, natural role when brain needs a boost of energy. Moreover, ongoing testing confirms Virtiva® Plus is effective in positively impacting choice reaction time, therefore leading to better work performance throughout the day².

Mirtoselect® is a standardized bilberry extract containing more than 36% of anthocyanins, characterized by a very specific and consistent HPLC profile that represents the "fingerprint" of the extract and retains all anthocyanin pattern of natural bilberry fruit. The proven benefits of these ingredients on microcirculation, vascular health and eye health³, opened the way to a new research, currently in progress, to study the action of these extracts on cognition that is strictly linked to aspects as memory, concentration and visual acuity. Mirtoselect® works to maintain brain health in the medium and long term. What's more, it has shown positive effects on the ability to sequence



and manage multiple tasks at the same time, and quickly shift between topics².

Last but not least, Mirtoselect®' supply chain





and production follow a circular economy and sustainable approach.

Enovita® is a proprietary proanthocyanidin (OPCs) rich extract made exclusively with grape seeds from white wine production, exploiting an environmental friendly production. Using only water as extraction solvent, Enovita® is a food grade extract and it's an example of how circularity can start a virtuous cycle.

Enovita® contains a low amount (5.0-15.0%) of flavane monomers (catechin and epicatechin) and high content of oligomeric proanthocyanidins: it's standardized to contain >95% of proanthocyanidins (spectrophotometry) and 5% -15% catechin/epicatechin (HPLC).

Indena's grape seeds extract has benefit for

melatonin-free supplementation to support long-lasting and deep sleeping and contrasting stress generated during the day. Recent clinical evidence shows that this product offers a clear support to sleep, mood, emotional balance, mental well-being and quality of life⁵⁻⁶.

References:

- 1 Kennedy D.O. et al., Hum. Psychopharmacol Clin Exp. 22:199- 210 2007.
- 2 Confidential data on file, May 2024. *Manuscript in preparation*
- 3 Morazzoni P. et al, Fitoterapia, 67, 3-29, (1996)
- 4 Schöni, Christiane, et al. "Grape seed extract positively modulates blood pressure and perceived stress: A randomized, double -blind, placebo-controlled study in healthy volunteers." *Nutrients* 13.2 (2021): 654.
- 5 Bano A, et al. (2023) *Front. Pharmacol.* 14:1250560. doi: 10.3389/fphar.2023.1250560.
- 6 Rondanelli M. et al., *Journal of Food Science and Nutrition Research.* 7 (2024): 125-130.



cardiovascular and mental health thanks to a positive proven double effect on endothelial function and on mood: recent clinical evidences show that Enovita® is effective in reducing perceived stress and worries. In addition, it has shown to support decision making more accurate perception of stimuli, and to help alleviate anger and depression for overall well-being⁴.

Talking about brain health also means considering emotional health. That's why Indena's proposal includes also **Relissa®** a health food ingredient based on the formulation of *Melissa officinalis* with phospholipids (Melissa Indena Phytosome™) to optimize dispersion in gastrointestinal fluids and biological performance.

Melissa leaves are a traditional sleep aid, but their biological activity is mostly due to hydroxycinnamic and rosmarinic acids and derivatives. In a market scenario full of lemon balm extracts with lack of standardization, unclear dosages, poor quality standard and absent efficacy evidences, Indena's researchers achieved the perfect formulation of melissa extract, making Relissa® a standardized, reliable, proven effective and



SCIENCE IS OUR NATURE. SINCE 1921

To know more visit www.indena.com