

HOW TO FIGHT THE PHYSICAL AND MENTAL FATIGUE

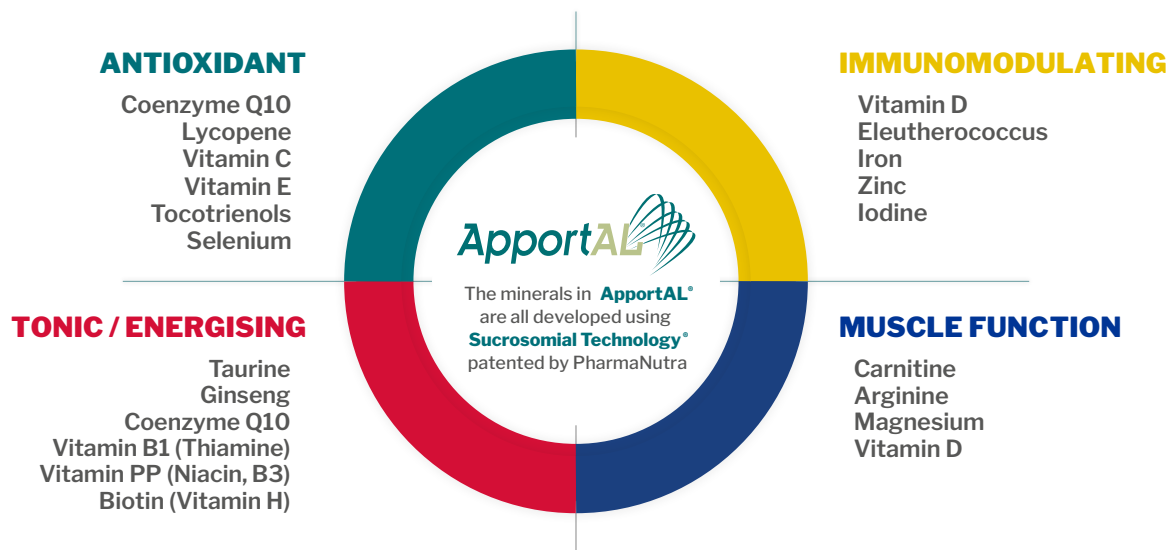
HOW TO FIGHT THE PHYSICAL AND MENTAL FATIGUE

Physical and mental fatigue is identified with the term *asthenia* (from the Greek, devoid of strength) and is characterized by loss of energy, weakness, irritability and anxiety.

The causes that lead to this condition can be varied, including:

- **Periods of stress**
- **Irregular lifestyles**
- **Unbalanced diets**
- **Change of season**
- **Aging**
- **Irregular sleep**
- **Intense sports activity**

When asthenia persists over time, it may be necessary to resort to the supplementation of minerals, vitamins and nutrients that can reinforce our body and provide the energy necessary to face daily life.



Apportal[®] is a food supplement containing 19 essential nutrients for physical and mental fatigue. Below are the 4 main functions of its ingredients:

- **Immune: promotes the normal function of the immune system**
- **Muscular: contributes to the maintenance of normal muscle function**
- **Antioxidant: promotes the protection of cells from oxidative stress**
- **Energizing: contributes to normal energy metabolism and the reduction of tiredness and fatigue**

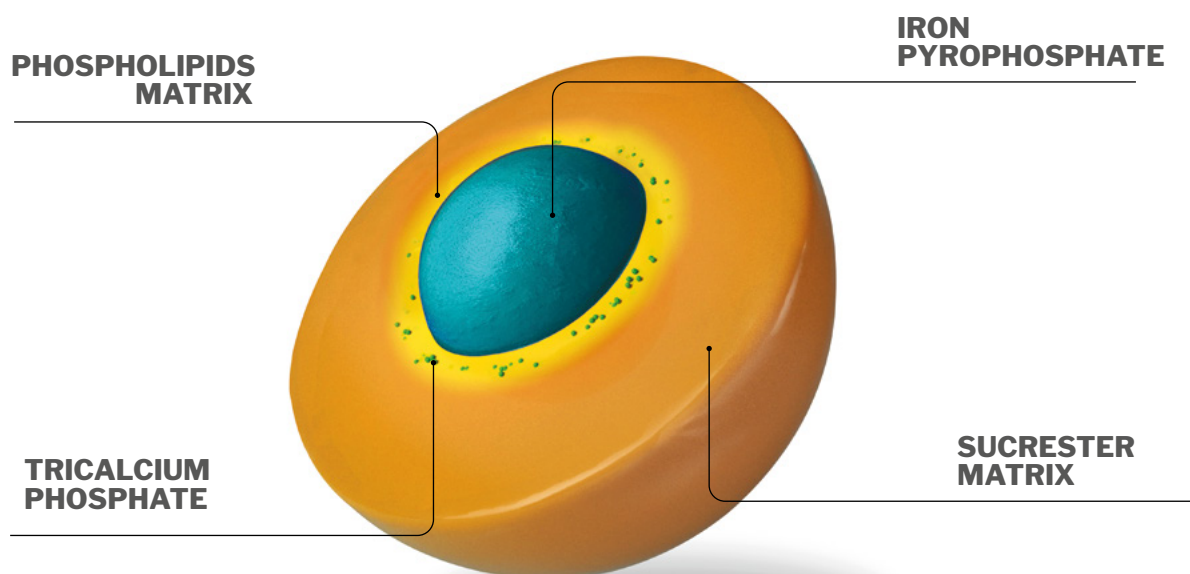
Immune function is conferred by the synergistic action of eleutherococcus, vitamin D, iron, iodine and zinc. All these substances help our body to defend itself from pathogens, increasing the response to fight infections.

Muscle function is given by various nutrients, such as: arginine, carnitine, vitamin D and magnesium; these help to provide energy and oxygen to the muscles, favoring their contraction.

Antioxidant function is favored by the action of selenium, vitamin E, vitamin C, zinc, tocotrienols, coenzyme Q10 and lycopene. These nutrients are able to protect cells from oxidative stress, caused by free radicals, such as ROS (reactive oxygen species). Free radicals can attack cellular elements, causing irreparable damage, which can lead to cell death or the genesis of diseases.

Finally, the *energizing* function is operated by these nutrients: taurine, ginseng, coenzyme Q10, vitamin B1, vitamin B3 and biotin (vitamin B7). Some studies have shown that taurine increases cardiac contractility during exercise, allowing better oxygenation and inhibiting the accumulation of lactic acid in the muscles, preserving their proper contractility, even during intense exercise; ginseng, instead, seems to have an effect "anti-fatigue" and improves mental fatigue. Finally, B complex group vitamins are involved in energy metabolism and, if integrated in the right quantities, are able to stimulate physiological functions by reducing tiredness and physical and mental fatigue.

It is also significant to remember that the minerals within Apportal[®], such as Iron, Zinc, Selenium, Iodine and Magnesium, are in Sucrosomial[®] form, an innovative technology patented by Pharmanutra S.p.a., in which the mineral is protected within a matrix of phospholipids and sucrose esters of fatty acids; it allows a high absorption and excellent gastrointestinal tolerability of these nutrients.



Apportal® is useful for people who need a quick recovery of energy; for those who suffer periods of frequent tiredness and fatigue; for post-flu recovery, often characterized by weakness and asthenic symptoms; for diets characterized by poor nutrient intakes or in situations of deficiency of one or more nutrients and for people who regularly practice intense sports activity.

In addition, Apportal® was used in chronic post-Covid-19 fatigue (post-Covid or Long-Covid syndrome).

A recent study was conducted in Italy on about 200 patients suffering from this syndrome who were advised to take Apportal® for 28 consecutive days. The degree of tiredness and the quality of life of these subjects were measured 3 times during the entire observational study, through specific questionnaires: the FACIT-Fatigue to quantify the degree of fatigue, the EuroQol -5D to assess the level of health in general and the Chalder Fatigue Scale to evaluate the degree of mental fatigue. These measurements were made before starting the supplementation of Apportal® and repeated after 14 and 28 days from the first daily intake of Apportal®.

The results, across the study population, show a significant increase in questionnaire scores after 14 and 28 days of supplementation with Apportal®. The improvement observed already after 14 days showed that the positive effect is not only attributable to the time elapsed since the end of the disease, but is also due to the treatment itself and is statistically significant.

In conclusion, the benefits derived from Apportal® showed an improvement in chronic asthenia in 90% of patients after 28 days of treatment.

BIBLIOGRAPHY

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Apportal[®]



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