

THE MUSHROOMS IN IMMUNE+++ HAVE BEEN PROVEN TO HELP NERVE GROWTH AND STABILITY

Kimberly Lloyd M.S.

We all need to be reminded to keep ourselves in balance physically, spiritually, nutritionally and emotionally. Play, laughter and supportive social relationships are also important. Not only have traditions in our cultures reminded us to balance our lives and keep our peace, modern day science is validating the same theories.

What is Psychoneuroimmunology?

Psycho-neuro-immunology is the study of the interactivity and actual biochemicals relayed between three areas: our psyches (our thinking minds), our nerve/brain functions and our immune functions.^{1,2} If one system becomes disturbed, the others can and do become influenced. There is constant feedback between these systems. We even know now that diet and stress can affect the very outcome of behavior and even influence the DNA structure for better or worse.¹ It is all interrelated!

Our bodies do not want us to become weak. They are programmed to do everything possible to keep us well, but they need our help. We know intuitively that stress factors can cause physical and emotional weakness, taking their toll on our health and mental states. When nutritional and stress related imbalances arise, a cascade of damaging events can occur—this is called inflammation.

What are the effects of diet on inflammation?

Inflammation occurs directly in muscles and thus nerves (legs, hip, back), joint tissues (knees, elbows, shoulders, neck), in the blood stream, the lymph/immune system, the brain, the cardiovascular system and blood vessels. Diets that promote inflammation are high in refined starches, sugar, saturated and trans-fats, and low in omega-3 fatty acids, natural antioxidants and fiber from fruits, vegetables, and whole grains.³

Women in the Nurse's Health Study who ate a "Westernized" diet (high in red and processed meats, sweets, desserts, French fries and refined grains) had higher inflammatory stress markers than those with the "prudent" pattern, characterized by higher intakes of fruit, vegetables, olive oil, legumes, fish, poultry, and whole grains. The association between trans-fat consumption and inflammation is a reliable finding across numerous trials and observational studies.³ Nurses eating the "Westernized" diet are also shown to have experienced a higher and relevant incidence of depression.³

Higher fruit and vegetable intakes are associated with lower oxidative stress and inflammation. In fact, some evidence suggests that the addition of antioxidants or vegetables may limit or even reverse pro-inflammatory responses to meals high in saturated fat.³



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What is the benefit of Opti-Shield Mushroom Blend in IMMUNE+++?

The Opti-Shield Mushroom Blend in IMMUNE+++ is largely made with Reishi (*Ganoderma lucidum*), Maitake (*Grifola frondosa*) and Turkey tail mushroom (*Trametes versicolor*). Reishi (*Ganoderma lucidum*) and Maitake (*Grifola frondosa*) are reported in the scientific literature to support neuron cells and have neuronal health benefits.⁵ Turkey tail mushroom (*Trametes versicolor*) has been found to have numerous antioxidant benefits and different types of antioxidants.⁶

Mushrooms have been used by humans for thousands of years as food and/or as medicinal food. Of the 2000 edible mushrooms, 270 species are now considered as potential wellness agents. There has been an increasing consumption of mushrooms because of their nutraceutical qualities; however, taking supplements made with mushrooms makes it easier to obtain their benefits daily.⁵ Mushrooms are demonstrating effects in the areas of immune functions and for neural support. They are functional foods, free of pesticides, have high vitamin and protein contents and bioactive agents, including antioxidant activities.⁵



What is the potential usage for certain mushrooms?

In recent years, to unravel the mysteries of mushrooms, especially those used in traditional cultures, mushrooms are being investigated for their many ethnomycological claims for health benefits.⁷ As baby-boomers continue to move into their senior years, it is thought that mushrooms may be tapped to tackle the health concerns of the aging population.

Statistics project that more than 80-90 million people will reach age 65 and older by the year 2050. Many of these may be affected by age-related neurodegenerative disorders.⁵ In neurodegenerative situations, once the symptoms are manifested, it will be possible only to arrest or delay further the degenerative process. The strategy will be to look for agents that slow down and can nutritionally support less damage to the vital cells involved.

The search now is for small molecules, such as those in certain mushrooms, that can cross the brain-blood and induce the production of nerve growth factor (NGF), a family of proteins responsible for maintenance, survival and regeneration of neurons during adult life.⁵

The mushroom may be a candidate for the development of functional food to nutritionally support age-related neurodegenerative situations. Nutritional support is preferred, because once nerves are damaged, the reversal is almost impossible.⁵

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The studies already done by many researchers, as well as studies that are currently ongoing, show that selected mushrooms do have neurotrophic (nerve growth and stability) properties that can be beneficial to humans. Regular consumption may promote nerve and brain health. This is thought to be particularly useful as we age.⁵

With the Opti-Shield Blend in IMMUNE+++ , LifePharm is clearly at the forefront of the research on specific mushrooms for their potential psychoneuroimmunologic properties. This burgeoning field may soon reveal even more benefits pertaining to the combination of Reishi (*Ganoderma lucidum*), Maitake (*Grifola frondos*) and Turkey tail mushroom (*Trametes versicolor*).

References:

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