

BLEND OF INGREDIENTS TO HELP MAINTAIN BODY VITALITY

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ABSTRACT

The paper defines all of the beneficial ingredients, which include the nutrients responsible for the body's natural vitality, active and immunological reactions, and alertness. All of the ingredients in it are non-synthetic and 100% natural ensuring that it helps the consumer for maintaining his normal metabolic balance along with good exercise and diet, nail strength, hair vitality and vision health. It also helps to maintain a good overall wellbeing feeling and invigorated mood.

Index Terms—Benefits, fruit, diseases.

INTRODUCTION

THE product contains all the beneficial ingredients such as European Olive (leaf), Echinacea (root), Astragalus (root), Reishi Mushroom, Ashwagandha (root), Balsam Pear (fruit), Aloe Vera (leaf), Cranberry, Bilberry (fruit), Pomegranate, Rowanberry (fruit), Husk Tomato (fruit), Black Currant. All these ingredients have their own specific benefits, and all of these play their own vital roles for the maintenance and improvement of various functions of a human body. These lozenges offer multiple benefits to the consumer to stay healthy. All the natural ingredients are used to gain the required benefit from its consumption. The production process includes only drying and grinding. The process does not edit the natural properties of the ingredients helps the consumer to obtain maximum benefit from it. The combination of all the natural ingredients helps the individual to stay fit and healthy.

II. Benefits of Ingredients

The benefits of all the ingredients are described as below.

1. European Olive (leaf)

A number of factors are responsible for the prevalence of cancer including genetic changes as well other lifestyle and environmental factors, such as tobacco consumption, lack of exercise and obesity. The extracts of olive leaf help to reduce the effect of all these factors and as a result it minimizes the risk of cancer.^[1] Chronic inflammation has considerable correlation with many health complications that also includes cardiovascular diseases, cancer, and various age-related issues. The NF- κ B pathways for signaling plays an especially important

role for response against inflammation. It is an important target for inflammation prevention. According to assorted studies and observations, it was proven that the polyphenols of olive can interact with such pathways.^[2]

2. Echinacea (root)

Echinacea is also known as the purple cone flower. It has been used for centuries for making medicines to treat multiple issues such as cough, cold, bronchitis, inflammatory condition as well as upper respiratory infections. As per the existing literatures, it shows that it is not used for the prevention of illness but in contrast to it, it is used for treatment.^[3] Echinacea can boost the phagocytic immune cell response.

Some other benefits of Echinacea can be mentioned as below.

- As per reports received from various laboratories, collagen-building and fibroblast activity can be inhibited.^[4]
- The extracts of Echinacea have been reported to have significant antifungal properties by various vitro experiments where testing was conducted against multiple *Saccharomyces cerevisiae* as well as *Candida* species that also include *Candida Albicans*, which is the most common fungal disease in the skin of a human body.^[5]

3. Astragalus (root)

It is most often used for common health issues. It is also used for the improvement of health overall. Apart from it being used as a tonic, there have been multiple studies in vitro and vivo, both, with the sole intention of improvement of clinical and pharmaceutical applications.

This medicinal root consists of multiple compounds with protective and health features. For example, anti-inflammatory agents, antioxidants, adaptogens, immune stimulants that help to cure and prevent diseases.^[6] Among females, breast and ovarian cancer are the most common types of cancer to occur. By testing the effects of Astragalus, it shows a large number of positive effects. It was observed that it aided in the suppression of the proliferation of breast cancer cells.^[7]

4. Reishi Mushroom

Conventionally, reishi mushrooms have been used by the Japanese and Chinese herbalists for the treatment of insomnia due to their sleep-promoting properties.^[8]

It contains a remarkably high concentration of Polysaccharides, Triterpenes as well as Organic Germanium. All these active components present in it are reported to strengthen the immunity cells of a human body and also improve the immune system.^[9]

It is a famous cure to a variety of health conditions, outperforming other therapeutic herbs due to the absence of any negative side effects or toxins that may come from use, as well as its medical efficacy. Since it was quite rare, naturally, it was preserved for the Asian royalty, only to be consumed by the rich. By 20th century, due to the cultivation of red reishi mushroom, it no longer remained rare and was made available to the commoners too, globally.^[10]

5. Ashwagandha (root)

Ashwagandha, *Withania Somnifera* or WS, is mostly used for making Ayurvedic medicines, a conventional medical system implemented in India. It is used for formulation of several different medicines for the improvement of musculoskeletal conditions, including rheumatism and arthritis. It is used as a general source of increasing energy and improvement of overall longevity and health. It is also very effective for the prevention of various diseases in elderly, athletes and during pregnancy.

There have been multiple studies conducted that show various properties of Ashwagandha that authenticates that it can be used as a multiple purpose medicinal agent. For example, as per some research the anti-inflammatory properties have been found that can validate dunal, sitoindoside, withaferin, winter cherry, solanaceae and Indian ginseng.^[11]

6. Balsam Pear (fruit)

It is a conventional ingredient that is commonly used in Asian cuisine and medicines. It is mostly used for the treatment of gastrointestinal issues. It was demonstrated that it was capable of assisting diabetics in the United States. The extracts of this fruit are commonly used for treatment and prevention of malaria and cancer. The bitterness of this fruit plays a vital role for the stimulation of digestion. Also, in general the bitterness in

certain food helps to cure bad digestion as it treats constipation and speeds the digestion process. The increase in the digestion process may cause heart burn and may also worsen ulcers. But Balsam pear contains soothing effects and hence it does not cause such situation.

According to the studies conducted, it was reported that the fruit contains lectin, which is a sugar binding protein. It acts like an insulin and removes sugar from bloodstream. Lectin becomes highly useful for treating adults having Type II diabetes. According to traditional medicine system of South America and Asia, it can help in the prevention of malaria, and it also consists of various compounds that can affect malaria. More research is being done on this fruit to learn about its other health benefits.

It has also been reported to have abilities to inhibit cell growth of cancer. It also helps to eliminate the cancer cells already existing in the human body. Hence, it is used for both, treatment as well as prevention of cancer.^[12]

7. Aloe Vera (leaf)

Apart from the various other benefits that aloe Vera provides, such as its healing qualities, anti-inflammation, immune system effect, laxative effects, anticancer and antiviral activity, and antibacterial effect, anti-aging and moisturizing effects are noteworthy. In order to bind moisture in the skin, mucopolysaccharides play a very important role. The aloe is responsible for the stimulation of fibroblast and producing collagen. It also produces the elastin fibers that make the skin less wrinkled and more elastic. It enhances the cohesive effects upon the epidermal cells as it binds them together and helps to keep the skin soft. Amino acids usually are the source of skin hardening. Zinc tightens the pores while acting as an astringent. The effects of Aloe Vera as per its moisturizing features have been observed for the treatment of dry skin. Aloe Vera improves the integrity of the skin, decreases the visibility of wrinkles as well as erythema.^[13] It also offers anti-acne benefits.

Aloe Vera also gives protective effect on the skin against the gamma and UV radiations.^[14]

8. Cranberry

Cranberry-based medicines in a variety of formulations have been subjected to intensive testing for the treatment of Urinary Tract Infections (UTIs) for several decades. As per the studies and research, there has not been any particular effect observed for the treatment of this problem using cranberry. Instead, the focus is diverted towards the preventative strategies. It has shown considerable effects as per the *vitro* and *vivo* among animals for preventing UTI. It works by the inhibition of type I and P-fimbriated uro-pathogens to the uroepithelium and impairs with subsequent and colonization infections. Isolating the cranberry

components has been a truly intimidating task while using this activity. As it also considers numerous different compounds of fruit and the derivatives of juices. According to the evidence found, it shows that proanthocyanin/anthocyanidin moieties are strong anti-adhesion amalgams.^[15]

9. Bilberry (fruit)

It is one of the richest sources for anthocyanins. Such phenolic compounds give black or blue color to the bilberry and contain high antioxidant content. They are the bioactives that have been reported to be beneficial in bilberries and other berries. Apart from being promoted as a source for vision improvement, they are most likely to have lipid-lowering and blood glucose and anti-inflammatory effects while promoting antioxidant resistance and lowering of oxidative stress. Bilberry is proved to be effective for the treatment and prevention of conditions that are associated with hyperglycemia, dyslipidemia, inflammation, cardiovascular diseases, diabetes, cancer, increased oxidative stress, dementia, cancer, and various diseases that are related to age as well. According to various reports, bilberry also offers antimicrobial activity.^[16]

10. Pomegranate

The bioactive compounds present in a pomegranate include ellagic acid along with its derivatives, flavonoids, sterols, fatty acids, terpenes, gallic acid as well as hydrolysable tannins, anthocyanidins/anthocyanins, terpenoids, proanthocyanins and many others.

Many of the compounds present in pomegranate are responsible for exhibiting vascular protective effects. Various components present in a pomegranate have the ability to reduce lipid peroxidation, foment cell generation, oxidative stress in order to influence, positively, the endothelial cell function by lowering the glucose levels and increment of NO levels. It is known to decrease the aggregation of platelets as well as the reduction of hypertension. Altogether it helps in the improvement of vascular function.

According to the experiments conducted on mice and human participants, the juice of pomegranate helped to reduce the oxidative stress. Moreover, the mice having deficiency of apolipoprotein were observed to have reduced the atherosclerotic lesions' size by 44% as well as diminishing the foam cells among the lesions. In terms of human body, the consumption of pomegranate juice helped to diminish the vulnerability against LDLs (Low Density Lipoproteins) for the enhancement and aggregation of serum paroxonase activity up to 20%.^[17] It an esterase associated with HDLs (High density Lipoproteins) and can also provide protection against peroxidation, to the lipids.^[18]

11. Rowanberry (fruit)

Rowan berries are found to possess remarkably high levels of Vitamin C, which helps the human body by stimulating the production of white blood cells while acting as an antioxidant as well. Vitamin C is used for different processes that includes collagen creation that helps in the strengthening muscle tissue and also assists in repairing or the building of blood vessels.^[19] Rowan berries work as a very efficient antioxidant and hence are usually used for the prevention of multiple chronic diseases that also includes cancer. The quercetin and the ascorbic acid function as antioxidants. These help in preventing any damage that can be caused by the free radicals in the human body. These free radicals are harmful byproducts, leading to the transformation of healthy cells into cancerous ones, of cellular metabolism. The rowan berries help in the enhancement of antioxidant levels that assist in the prevention of the cancer cells' growth. They also support good skin, speed up the healing process, increase cell regeneration, and lower the risk of macular degeneration.^[20]

Rowan berries do not contain a wide range of vitamins, although they are high in vitamin C. Vitamin C is mandatory for the maintenance of health as it is vital for the improvement of white blood cells' production. It also works as an antioxidant. Apart from these benefits, vitamin C also helps for the functioning of all the vital processes of a human body. These processes also include the production of collagen as well as the repair of blood vessels and enhancement of muscle tissues.^[21]

12. Husk Tomato (fruit)

Potassium is an electrolyte that allows muscles and nerves to interact and work with salts in the body to keep blood pressure under control and prevent it from rising too high. Husk tomato helps to give the human body enough potassium to gain such benefits. It also contains a considerable amount of phytochemical compounds and vitamin C that can potentially fight cancer and are antibacterial. They have been touted as good for muscular and joint disorders, as well as arthritis, by the traditional Indian medicine system. The native American tribes consume tomatillos for treating many diseases. Well-cooked tomatillo seeds have also been found by the archeological explorations.

Kansas University collaborated with the Native medicinal research program to conduct a study about native tomatillos, which is a communal weed of the Great Plains. They also studied its effect on mice with cancer. It was reported that the husk tomatoes contained compounds known as the withanolides. These show promise as anti-cancer properties for breast, thyroid, neck, brain tumors, and leukemia too, without any side effect or toxicity.^[22]

13. Black Currant

Black currant berries are considered to be an amazing source for bioactive compounds including flavonols,

anthocyanins, phenolic acids and procyanidins. Black currant is also a good source for bioactive polyphenols and are present as 500-1342 mg/100g of the total polyphenols with mostly the anthocyanins present as 160-411 mg/100 g. The polyphenol microcapsules of black currant are a favorable food additive to be incorporated into functional foods. It is due to the antioxidant content. Because black currant contains bioactive elements, it is thought to be helpful to human health.^[23]

Nutrition Facts

Serving Size: 1 drop

Servings per container: 30

Amount Per Serving: %DV %VD

Calories 6

Carbohydrate 2g 1%*

Total Sugars 1g

Includes 1g Added Sugars 2%*

*Percent Daily Values are based on 2,000 calorie diet.

†Daily value not established

III. CONCLUSION

A very high impulse process is used for the bio-activation of botanical molecules. The impulse is responsible for creating smaller pores in the cells of plants and make its content available for active connection with the caramel mass so that the body can absorb it. The cell membranes become porous and thinner. When the product is under usage, the beneficial substances that are hidden are released by the pores such as saponins, plant pigments, flavonoids, organic acids, as well as the phytonutrients. The activation process is responsible for the enhancement of bioavailability. It considerably increases the nutrition of the processed plants.

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