

Impacts of Natural Ingredients and Supplements on Health and Wellness

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Introduction

In the recent century, many people take natural ingredients as a dietary supplement. According to Rawson et al. (2018), it can be considered a substance taken in the body to improve the health or wellness of an individual. Dietary supplements may include; herbs, vitamins, and minerals. In Europe, children and adults take one or more natural ingredients to supplement their diet that contain minerals, amino acids, herbs, and other botanical constituents. Natural diet supplements may have numerous impacts on individual health depending on the condition and the nature in which they are taken in the body. Nevertheless, a portion of dietary supplements can help manage some health conditions and maintain overall health. However, herbal products can also pose unexpected health risks due to the presence of active substances that can have adverse effects on the body. For instance, taking herbal together with drug prescriptions can lead to a chemical reaction in the body that produces life-threatening compounds. Similarly, dietary supplement substances can undergo a chemical reaction when combined with other diet constituents to produce known or unknown compounds that can threaten human life. Therefore, the paper discusses how some natural ingredients and supplements can affect the health and wellness of a person.

Natural Ingredients and supplement

According to Cohen et al. (2020), natural ingredients and dietary supplements are substances taken in the body to boost wellness and health to an individual. These dietary supplements form the blocks for body-building substances. Dietary supplements can be in the form of pills, tablets, liquid, or capsules. These products are added to the diet but are not considered food substitutes. Dietary supplements are widely available in a natural settings such as food stores, groceries, pharmacies, and online stores. Cohen argues that most dietary supplements are taken for health purposes to improve an individual's general body health and wellness. According to Jagim et al. (2019), the joint dietary supplement is minerals and vitamins such as vitamin C, botanical supplements such as plant products and herbs, and substances extracted from natural sources such as omega-three fatty acids. However, researchers indicated that makers of dietary supplements are not legally allowed to conclude that dietary supplements can cure, treat or diagnose people until proven medically accepted by a recognized physician. Nevertheless, makers of dietary supplements can say they contributed to health and wellness for individuals. In the United States, dietary supplements are no longer regulated in the same way as medicine and can be sold even without research on how it works on the human body.

Historically, they used natural ingredients and supplements as herbal medicine to prevent illness, relieve fever, cure infections, and heal wounds. Makers of dietary supplements can prepare substances used to treat constipation and ease pain through traditional formulas. According to the research, natural ingredients can have similar health impacts as conventional medicine, while some herbs and plants may have no impact on human health or may be harmful. For example, supplement such as beta-carotene and vitamin E does not lower the prevalence of heart diseases as claimed. Natural ingredients and supplements are critical in facilitating nourishment of a person's body and maintaining a healthy body. The supplement can be gotten by taking a variety of food sourced from natural sources. When the supplement is taken together with food, it can be absorbed easily in the bloodstream and directed to various body parts to initiate healing wellness. According to research, healthcare providers advises people to eat a variety of diet rich in minerals to keep their body strong and able to fight illness. For example, people are advised to take foods such as vegetables, fruits, lean meat, and fish since they constitute natural supplements that provide the body with the micronutrients required in the body. Nevertheless, there are various natural sources where dietary supplements can be extracted. Numerous sources are discussed below.

Water

A dietary supplement is a vital element to individual health. Water is taken to supplement the diet but cannot be taken as food alone. Water is a compound made up of hydrogen and oxygen. According to Ngunyen et al. (2021), water contains minerals and other carbon-based particles dissolved together. Water as a whole protects the tissues and body organs from drying. The dissolved substance may undergo a chemical reaction in the body to bring wellness and good health to humans. For example, nanoparticles such as graphene oxide, graphene, and carbon nanotubes dissolved in water can be used to adsorb steroid hormones to incorporate in membrane composites. Therefore, despite the fact that water is a purely natural compound, dissolved substances can be used to improve body wellness in the long run. Water is used as a dietary ingredient but does not heal illness. Nevertheless, water can intensify an illness if it contains impurities such as lead and other heavy metals. Ngunyen argues that nanoparticles can affect the adsorption by changing the shape, structure, conformation, and geometry to influence the surface area of colloidal instability. Basically, all living organisms require water for survival. Water can be taken before or after the meal to supplement the diet. According to the survey conducted by Geological survey, our bodies comprise approximately 60% water. Therefore, water must be taken regularly to increase wellness. In the process of drinking water, our body has a special mechanism to extract minerals present in water to improve health and overall body wellness. For example, spring water is rich in magnesium, sodium, calcium, and other important minerals used to strengthen bones and teeth. For this reason, healthcare providers encourage people to drink water regularly to improve their health wellness. Nevertheless, studies have shown that natural ingredients such as water impact health and wellness. Discussed below are some of the impacts of taking water as a dietary supplement on overall health and wellness.

Water Protect Body Organs

Water acts as a quenching agent and protects body organs such as joints, spinal cord, and tissues. According to Luo et al. (2020), it protects body organs by producing selenium-doped quantum dots that effectively ameliorate spinal cord injury and recreates strong bones. Water components help maintain moisture within the body tissues to maintain body wellness. In addition, maintaining a hydrated body helps protect sensitive areas such as the brain, blood, and bones. Most body parts move freely during movement. Therefore, water acts as a lubricant between bones and a cushion between the joints. Thus, water is an important dietary supplement for maintaining health wellness.

Water Helps during Excretion of Waste

When food is taken into the body, it has broken down into small particles that can be absorbed in the body. Water dissolves important nutrients to be absorbed in the body. However, not all food particles are absorbed in the bloodstream. Therefore, water enables the body to excrete some of this waste, either in form of sweat or urea (Ahsan et al., 2018). Therefore, water helps maintain homeostasis for good and wellness in the body. Healthcare providers encourage people to drink more water as a dietary supplement to support body organs responsible for removing waste from the body. For example, kidneys require a lot of water to facilitate blood filtration.

Blood impurities can endanger someone's life. Therefore, when water is taken as a supplement in the diet, it can help to maintain body wellness.

Water Aids in Digestion

When water is taken as a supplement, it plays a significant biological function. According to Jain et al. (2020), water helps break down food to allow nutrients to be absorbed in the bloodstream. Therefore, water is a crucial compound taken as a supplement in the human body. Typically, food is taken through the mouth in form of large chunks that cannot be taken directly into the bloodstream. Water helps soften and break down food particles into manageable sizes that can be absorbed in the small and large intestines. When water is combined with food, it forms a heavy porridge-like substance. When this solution passes through the colon and ileum, water is absorbed in the body, leaving a solid substance to be excreted in the form of stool. Therefore, water is a natural ingredient used to supplement diet to help maintain health and body wellness in the long run.

Turmeric

Turmeric is a natural flowering plant of the ginger family, used as a dietary supplement (Ayman et al., 2019). The plant contains active components such as curcumin, proven scientifically to possess health benefits. For instance, its components can improve heart health and prevent cancer and Alzheimer's. According to Bradford (2013), turmeric has been recognized by healthcare providers as a natural inflammatory and health-promoting product. Most people use turmeric to spice food to improve health stability. Turmeric contains a variety of compounds that can be used to serve a medicinal purpose. Curcumin is the primary anti-inflammatory health component found in turmeric. Evidence deduced that curcumin found in natural turmeric facilitates weight loss and reduces obesity-related diseases. Health statistics indicate increased obesity and overweight patients in healthcare centers (Grassi et al., 2019). However, when turmeric was discovered, obesity and overweight-related diseases have decreased spontaneously. Curcumin contains a chemical substance characterized by anti-inflammatory activity to burn excess fat and oil.

The recent scientific approach shows that curcumin directly interacts with the adipose tissues to minimize chronic inflammation incidence. Scientist indicates that curcumin prevents macrophage infiltration and suppress the nuclear factor that triggers inflammation. Curcumin reduces the inflammatory incidence by destroying pro-inflammatory adipokines growth. Therefore, turmeric is an essential dietary supplement with health benefits and can improve overall individual wellness.

On the other hand, turmeric can reduce Alzheimer's disease (AD). AD is a common neurodegenerative disorder among older adults (Tang, 2017). In the modern days, AD prevalence has been detected among the elderly community, demanding immediate action to save the community. AD prevalence can be reduced by developing efficient pharmacotherapies from natural ingredients. Healthcare providers have identified turmeric as a potential source for therapies to reduce the incidence. Tang argues that medicinal treatments for this condition target the symptoms associated with the condition rather than modifying the disease progress in the human body. However, research indicates that natural ingredients such as turmeric may contain compounds that can suppress AD conditions. Curcumin, a product extracted from turmeric, has demonstrated treating AD. Curcumin prevents the formation of amyloid and attenuates clearance of bind copper, lowers cholesterol in the blood, and modifies the microglial activities. Therefore, physicians will probably develop an effective natural therapy to cure AD using natural ingredients with continued research.

Consequently, turmeric can also be used to reduce cancer intensity. According to Unlu et al. (2016), curcumin, a product extracted from roots of a turmeric plant, was traditionally used by Chinese and Indians for medicinal purposes. Laboratory test indicates that curcumin has antioxidant, anti-inflammatory, and anti-cancer properties. However, there is no clear medical evidence that explains the findings. However, curcumin usage has been known for favorable results in reducing cancerous growth in the long run. Nevertheless, turmeric compounds also facilitate the treatment of cardiac fibrosis. Fibrotic genes are responsible for the immediate response to damage by cardiovascular diseases. Curcumin compound constitutes an extensive biological phenomenon that can stabilize heart conditions. The product helps to regulate blood pressure and heartbeat developed by cardiac fibrosis. According to Gorabi et al. (2020), healthcare providers have affirmed the role played by curcumin in the human body amid suppressing heart failure conditions. In

general, turmeric is a natural ingredient with unlimited benefits for human health. According to Kocaadam et al. (2017), the turmeric plant is grown in Iran, Malaysia, India, and China held with great importance. Traditionally, people have been using turmeric to spice and for medicinal reasons. Thus, turmeric is a natural dietary ingredient that has numerous health advantages. Curcumin, a turmeric compound, is used as an antioxidant, anti-inflammatory, and anti-cancer and has no known side effects on human health.

Resveratrol

According to Galiniak et al. (2019), resveratrol can be considered a stilbenoid, a natural phenol, and phytoalexin that can be extracted from numerous plants under certain conditions plan is under attack by fungi or bacteria. Some familiar sources of resveratrol include; peanuts, mulberries, blueberries, and raspberries. Resveratrol can be found in grapes' skin and seeds and food sources such as peanuts, wine, and berries. Resveratrol is a natural supplement that impacts health and wellness in numerous ways. When resveratrol is taken in the body, it can treat cancer, reduce aging, act as an anti-inflammatory, and be used against glycation. In addition, resveratrol can treat and control diabetes and its complications.

Nevertheless, researchers have termed resveratrol a double-edged sword due to its health benefits. Resveratrol is compound that belongs to the polyphenol group made up of two phenol rings linked by Ethylene Bridge. Researchers have documented over 70 sources of this compound abundant in grapes, skins, and seeds. However, the compound can also be found in wine in discrete amounts. According to Salehi et al. (2018), resveratrol is used in cognitive performance and as a memory aid. Cognitive performance is the ability to acquire knowledge, reasoning, and manipulation of information. Therefore, resveratrol is used to improve thinking and make informed decisions. Resveratrol is a natural supplement that can help to improve reasoning and personal wellness in the long run.

In addition, resveratrol can also be used to impact older people's health conditions by treating Alzheimer's disease (AD). According to Sawda et al. (2017), the amyloid hypothesis suggests that continuous deposition of the central nervous system among the aging can result in AD. Therefore, resveratrol acts as a therapeutic agent for AD. According to the research, long-term use of resveratrol compounds can help to moderate mild AD. Therefore, resveratrol is an essential natural ingredient that can improve health and wellness. Nevertheless, research also indicates a direct relationship between resveratrol compound and ovarian hormone release. The release of progesterone, oxytocin, and progesterone are influenced by resveratrol. This is an important role this compound plays as it can be used to increase fertility rate and conception. Lastly, resveratrol can also be used to trigger cancer. Many people have become vulnerable to cancerous cells across all ages in the recent century. Evidence suggests that the style of living contributes to cancer and inflammatory growth. Healthcare providers have tried medicinal ways to treat cancerous cells, which may not respond appropriately. Therefore, physicians have recommended natural cancer treatment using the resveratrol compound found in grapes. Thus, natural ingredients and supplements can impact health and body wellness.

Raspberry Ketones

Raspberry ketones are a natural phenolic compound that forms the aroma compound of raspberries. According to Lim et al. (2021), numerous diseases are linked to oxidative stress that can be treated using the natural compound extracted from raspberries. Research indicates that raspberry ketone has numerous pharmacological functions. Essentially, raspberries are cheap natural compounds but can impact human health and improve individual wellness. Raspberry ketone compound is used to impact weight loss and cure obesity. Studies indicate that approximately 70% of the total population in the US are at weight and obesity compromise. The prevalence of weight-related diseases has heightened in the last few years due to changes in lifestyles. The majority of people spend the most time on a computer without undertaking any exercise. For this reason, healthcare providers have recommended people to develop a habit of taking raspberries as a supplement since they can impact health and stabilize body conditions.

In addition, raspberry ketone can be used to treat Alzheimer's disease. According to Huang et al. (2018), raspberry ketone is sometimes referred to as rheosmin, a compound that gives typical raspberries their distinct smell. Claims show that this compound has health benefits but is not scientifically tested and approved. Physicians advise older people to take more fruits that produce raspberry ketone compound or take an extracted compound directly into their body in the form of supplements. The compound indices increased

acetylcholine level, which refreshes the brain tissues. Therefore, the compound is ideal in treating AD, which is associated with old age. Consequently, the raspberry ketone compound has been used as an over-the-counter weight loss supplement in the last few decades. According to Li et al. (2022), raspberry ketone has gained popularity in health due to positive responses to reduce weight loss and obesity treatment. Still, it lacks scientific support for its use for medicinal purposes. Therefore, we can deduce that natural ingredients and supplements can impact health and wellness.

Monk Fruit

Monk fruit is an herbaceous perennial vine grouped into gourd families. The fruit originated from southern China, where the locals used it as traditional therapy. Monk fruit sweeteners lower sugar intake while providing maximum enjoyment of food taken together. Monk fruit is a natural ingredient with numerous health benefits. Tey et al. (2017) argue that monk fruit can be used as a non-nutritive sweetener that controls body weight and manages glycemic. However, few studies demonstrate energy compensation derived from insulinemic and glycemic responses. Unlike other no-calorie sweeteners, monk fruit is an exclusive sweet with natural sugar that does not add cholesterol levels to the body. Therefore, monk fruit can be used intensively to manufacture beverages and soft drinks such as dairy products, candies, condiments, and desserts. In addition, monk fruit compound can be used in baked goods due to its stability under high temperatures. Therefore, monk fruit may have myriad uses. Thus, the user can tailor the need to their specification. Nevertheless, monk fruit can also be used to trigger hormonal balance. The compound demonstrates effects when tested in the presence of glucose. The higher the monk fruit constituents, the higher the energy released. Therefore, we can conclude that natural ingredients taken as food supplements can improve individual wellness.

Monk fruit generally does not catch peoples' attention as it is not colorful as other fruits such as apples. However, in the modern days, people's attention is drawn close due to its health benefits. Monk fruit is ideal for patients with devoted foods with chemical sugar and the diabetes community. Research shows that monk fruit can boost food in the diet by adding natural sweetness. The makers of monk fruit sweeteners extract compounds from dried fruits to make natural sweeteners. The research shows that the extracted compound is approximately 150 times sweeter than the table sugar with no calories and does not raise sugar levels in the blood. Therefore, physicians recommend that people consume monk fruit sweeteners rather in large portions and take fewer table sugar-containing chemical substances.

Black Seed Oil

Black seed oil can be referred to as an herbal ingredient extracted from the *Nigella Sativa* plant initially found in western Asia and Eastern Europe. The compound is known for its powerful medicinal properties to treat a wide range of health conditions. According to Koo et al. (2016), black seed oil can be used in common treatments such as inflammatory conditions, asthma, rheumatoid arthritis, diabetes, and digestive diseases. The compound can also be consumed as a food supplement to improve wellness and health. Health-wise, black seed oil helps reduce condition prevalence by eliminating the chemical compound in the body that causes diseases. The product demonstrates therapeutic properties due to thymoquinone that forms the primary bioactive compound vital in the oil. Extensive research has been conducted to understand elements that make up this compound and link it to pharmacological actions. The major explored parts include; anti-cancer, antidiabetic, antimicrobial, anti-inflammatory, bronchodilator, and other essential areas. Therefore, the present review shows a relationship between black seed oil and health.

Research shows natural compounds are far much better than artificial compounds used as remedies for various health conditions. This is because black seed oil is made up of natural compounds, while artificial medicine is made up of chemical compounds that can leave damage to the body. Research shows black seed oil is healthy for human consumption regardless of health conditions. Therefore, we can conclude that black seed oil can be used to maintain good health and wellness (Majdalawieh et al., 2015). In addition, recent research has proven a potential herb to treat Covid-19. Studies show that covid-19 is caused by acute respiratory syndrome coronavirus. The *Nigella Sativa* plant contains antiviral and antioxidant compounds that can treat coronavirus infection. In addition, black seed oil contains antihistaminic compounds that help the body maintain a good condition to fight against infectious diseases. Covid-19 has

been recognized as a global pandemic as it can spread rapidly over a short period. Therefore, a natural control method is highly advisable to ensure that patients recover quickly without any bodily harm or leaving traces. Therefore, *Nigella sativa* is a natural ingredient that can control adverse conditions caused by immunomodulatory and antiviral diseases.

Apple Cider Vinegar

Apple cider vinegar is a vinegar extracted from fermented apple juice and is commonly used in salad dressing, food preservatives, and marinades. According to Gopal et al. (2019), apple cider vinegar has been validated scientifically fit for remedy. The research shows that there exists an unequivocal antimicrobial activity in apple cider vinegar which is used to treat myriad disease-related conditions. Therefore, apple cider vinegar can treat antimicrobial-related and inflammatory conditions. The global growth in antibiotic resistance has forced scientists to go for natural products as an alternative to control microbial conditions that can put human health in danger. Thus, apple cider vinegar is a natural ingredient but helps maintain good health.

According to Halima et al. (2018), the consequences of obesity can lead to a severe metabolic syndrome characterized by cardiovascular risk factors such as hypertension, glucose intolerance, and dyslipidemia. Research shows that a diet spiced with natural antioxidants such as apple cider vinegar is essential in reducing weight and controlling obesity-related conditions. When a study was conducted, apple cider vinegar showed a high correlation with obesity which shows the compound can trigger the condition. On the other hand, apple cider vinegar can control blood sugar levels. High lipid profiles and the associated glucose homeostasis can increase cardiovascular diseases. Therefore, adding apple cider vinegar as a supplement to the diet may help to improve wellness and health.

Aloe Vera

Aloe Vera is a tender plant species grouped in the genus *Aloe*. The plant has been used for medication for a couple of centuries. Researchers have extensively studied the therapeutic function found in this plant. There is numerous recognized therapy for the aloe Vera plant. They include; antibacterial, antiviral, hepatoprotective properties, immunoregulative function, and anti-cancer therapies. There are numerous traditional therapeutic uses for aloe Vera such as treating skin-affected burns, cuts, and insect bites, and used to enhance the digestive system due to impacts associated with anti-inflammatory and antimicrobial. Many researchers have been validating traditional usage for aloe Vera rather than expounding on its uses. Aloe Vera is a natural plant taken as an herbal to treat illness.

Aloe Vera species are distributed across Africa and Asia or any other tropical climate zone. Research deduced that Aloe Vera could treat skin affected by various conditions such as skin cancer and other microbial-related conditions. Ideally, Aloe Vera can effectively treat genital herpes, lichen planus, burn, inflammation, and wound healing. Nevertheless, Aloe Vera provides some promising outcomes when taken orally. However, the weakness is that dermatologists have not proven its effectiveness meticulously. In addition, Aloe Vera can be used as an antioxidant that increases nutritional value for food and increases shelf-life for food stored. Therefore, Aloe Vera can be used widely in cosmetic shops, pharmaceuticals, and the food industry to enhance wellness (Heş et al., 2019). Antioxidant substance prevents substance oxidation that degenerates chemical compound that triggers food degradation. Aloe Vera has become one primary antioxidant compound necessary for food products. Lastly, Aloe Vera can be used to treat gastroesophageal reflux diseases. The plant product provides an effective treatment to maintain the required gut health. Aloe Vera is associated with numerous health benefits required to maintain wellness. They include; accelerating healing of the wound, lowering sugar levels, reducing constipation, helping in treating canker sores, and having antioxidant properties.

Restore

Restore is a substance designed to regulate body conditions to support and restore energy and gut microbiome. Importantly, restore contains all the natural antioxidants, antifungal, anti-inflammatory, and other essential health ingredients. Therefore, these ingredients help the body support microbiome and develop a robust immune system. Ideally, restore plays all the roles played by natural ingredients in one basket. Restore helps in the digestion of carbohydrates to provide the energy required in the body.

Conclusion

Natural ingredients and supplements are found in abundance in various natural settings. Therefore, makers of natural ingredients must have unique knowledge to extract the required natural ingredients from the right plant. Otherwise, one may be at risk of confusing the right plant to source these ingredients. Natural ingredients and supplements affect health and wellness by treating diseases, reducing the intensity of a condition, maintaining homeostasis, and controlling weight-related conditions.

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