

# Holistic Way To Green Life

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## Abstract

Nature abounds in a variety of green leaves, and the researches shows that this provides the ready answers to the ordinary ailments of life. These remedies are most efficacious as they are taken directly from nature. Consumption of greens is a major source of vitamins and micronutrients. They are amazingly nutritious and powerhouse of antioxidants. Some of the plants highlighted here are filled with enormous amounts of proteins, phytochemicals like vitamins, flavonoids, carotenoids, and minerals. Thus, turning to green will be a great advantage in the human life, as it provides safety, quality and efficacy, thus ensuring complete freedom from the hazardous effects of other systems.

## INTRODUCTION

Ayurveda with its vast modalities is an integral spiritual science, which is gifted to the universe from the ancient enlightened Vedic culture. This science of life, which is emerging as the global medicine accords a high place for the dark green leafy vegetables in the daily diet. Greens abundantly contain minerals, such as calcium, magnesium, iron, potassium, vitamin A, vitamin K, vitamin B<sub>1</sub> and vitamin B<sub>2</sub>. According to Ayurveda some have medicinal properties or can be used to cure specific ailments. The leafy greens are filled with nutritious juices and they serve a vital role in curing many diseases especially, they replenish the body fluids and purify the subtle channels of the body. So the regular consumption of the leafy vegetables will benefit both mind and body.

India, with its enormous natural resources, is bestowed with thousands of varieties of leafy vegetables, which is highly energy giving. India is the second largest producer of fresh vegetables. In Ayurveda the leafy vegetables with its greenish colour and nutritional value has the enormous capacity to balance pitta and kapha. They provide a soothing and cooling effect on skin, thus enhancing the skin tone. Their high mineral content makes them beneficial for reproductive health and menopause. Yet another beautiful gift that the green leafy vegetables provide is that, they are rich in antioxidants, which help in preventing the aging and diseases. It could be a challenge for most of the Indian people to make the vegetables a part of daily diet, but it should be done, as the value they add to every meal is very high. The descriptions given below about some of the greens

with properties make them valuable parts of the diet or for medicinal purposes.

## Figure 1

Figure 1: Coriandrum Sativum



It belongs to the family umbelliferae. Coriander is very good for neutralising the gastric acidity. It kills the bacteria and fungi and hence it is beneficial for gastritis. It is good for the teeth. It is also used for treating dysentery, hepatitis, indigestion, nausea, haemorrhoids, bleeding nose and rashes on the skin. It cures mouth and stomach ulcers and improves eyesight. The leaves of Coriandrum sativum have excellent antioxidant and free radical scavenging activities<sub>1</sub>. Among medicinal plants, Coriandrum sativum L. has been recommended for relief of anxiety and insomnia. Coriander decreases the uptake and enhances the breakdown of lipids

hence beneficial in hyperlipidemia.

**Figure 2**

Figure 2: Moringa Oleifera



Moringa oleifera belongs to the family moringaceae. The leaves of *M.oleifera* are rich sources of beta carotene, vitamin C, protein, iron and potassium. They are highly nutritious. The alcoholic extract of these drumstick leaves have radical scavenging capacities and antioxidant activities<sup>3</sup>. The hepatoprotective effect of ethanolic extract of Moringa oleifera on liver damage caused by antitubercular drugs was also evaluated<sup>4</sup>. In terms of growth parameters the fresh and dehydrated drumstick leaves were found to be a better source of vitamin A than synthetic vitamin A .Various leaf extracts of Moringa oleifera confirmed the presence of phytosterols, glycosides, tannins and amino acids. The ethyl acetate extract of dried leaves was found to have significant wound healing property<sup>5</sup>. At lower concentration it also regulates hyperthyroidism. They causes the reduction of serum T<sub>3</sub> concentration but increases the serum T<sub>4</sub> by inhibiting the peripheral conversion of T<sub>4</sub> to T<sub>36</sub>. The leaves of Moringa oleifera have proved beneficial in the treatment of gastric and duodenal ulcers.

**Figure 3**

Figure 3: Hibiscus Cannabinus



It is a rich source of iron, vitamins, folic acid and antioxidants essential for human nutrition. These leaves and flowers have a cooling effect and act as an appetizer. They are very useful in relieving symptoms of fever. These leaves are also used to treat jaundice.It is consumed with onions and green chillies as it is highly cooling. It strengthens the body and improves tastes. It is good to counter constipation and benefits people suffering from gastric problems. Hibiscus cannabinus has an immunomodulatory effect<sup>7</sup>. It is mainly used for the treatment of blood and throat disorders, bilious conditions, fever etc.

**Figure 4**

Figure 4: Centella Asiatica



It is commonly called as Brahmi or the herb of grace. The

Indian pennywort or *Centella asiatica* has several medicinal properties. It is also found that the regular intake of brahmi improves children's IQ. It reduces the amount of urea in the urine, serum cholesterol in blood and improves general health. It also cures various skin diseases, reduces epilepsy and improves heart functioning. It is also used for the treatment of bronchitis, asthma, arthritis, fluid retention, constipation, hair loss, depression, mental and physical fatigue and also used as blood cleanser. Brahmi possess anticancer activity. It is often consumed to get relief from stress and anxiety.

The glycoside madecassoside extracted from *C. asiatica* has inflammatory properties, while asiaticoside appears to stimulate wound healing. *C. asiatica* has also proven beneficial in treating psoriasis. The constituents present in *Centella asiatica* fresh leaf extract has neuronal dendritic growth-stimulating properties<sup>8</sup>. Researches have shown positive modulation of cognition and mood in the healthy elderly volunteer following the administration of *Centella asiatica*.

The rapid technological advancements have increased human exposure to ionizing radiations enormously and they produce deleterious effects in the living organisms. The results obtained from in vitro and in vivo studies have shown that it protect against radiation-induced lethality, lipid peroxidation and DNA damage. The aqueous extract of *C. asiatica* not only possesses antioxidant properties but also reduces the extent of mitochondrial damage<sup>9</sup>. This plant extract is safe for mosquito control which can be used directly as larvicidal and mosquitocidal agent in small volume aquatic habitats or breeding sites around human dwellings<sup>10</sup>.

Skin ageing is a complex process determined by the genetic endowment of individual and environmental factors, such as sun exposure. The effects of skin ageing are mostly encountered in the superficial dermis and in the epidermis. Madecassoside, the active compound extracted from *Centella asiatica*, known to induce collagen expression and to modulate inflammatory mediators, was found to prevent and correct some signs of ageing<sup>11</sup>.

Alzheimer's disease (AD) is a progressive neurodegenerative disorder that marks memory impairment and cognitive deficits. Extract from the leaves of *Centella Asiatica* have been used as an alternative medicine for memory improvement in Indian Ayurvedic system of medicine for a long time<sup>12</sup>.

**Figure 5**

Figure 5: *Solanum Nigrum*



*Solanum nigrum*, the black nightshade is also known as sun berry or wonder cherry. It is a rich source of vitamins and minerals which include calcium, phosphorus, iron, riboflavin, niacin and vitamin C. This is used as a valuable cardiac tonic. It rectifies disorders of nutrition and thus restores the normal function of the system. It also reduces excitement, irritation and pain.

The plant is beneficial in the treatment of dropsy. It increases the secretion and discharge of urine. The leaves are effective in the treatment of digestive disorders and stomach disorders like flatulence, peptic ulcers and colitis. An infusion of the plant is often used in dysentery and other stomach ailments. The plant helps in expelling catarrhal matter and phlegm from the bronchial tubes, in asthma patients. The plant is useful in chronic skin diseases. A juice or poultice of the leaves serves an efficacious application over rheumatic and gouty joints, corrosive ulcers and tumours. A decoction of the leaves can be used to wash tumours, inflamed, irritated and painful parts of the body. *Solanum nigrum* regulates nitric oxide (NO) production<sup>13</sup>. Nitric oxide (NO) is an antitumour molecule produced in activated macrophages.

The total alkaloids isolated from the medicinal herb *Solanum nigrum* inhibited the growth of human cervical carcinoma<sup>14</sup>. It is used as a hepatoprotective and anti-inflammatory agent<sup>15</sup>. The lipid-soluble extract of *S. nigrum* leaves possess antinociceptive, anti-inflammatory and anti-

pyretic properties<sub>16</sub>. *Solanum nigrum* offers antiulcer activity by blocking acid secretion through inhibition of  $H^+-K^+$ -ATPase and decrease of gastrin secretion. These further suggest that it possess antiulcerogenic as well as ulcer healing properties, which might be due to its antisecretory activity<sub>17</sub>. *Solanum nigrum* glycoprotein has potent antioxidative activity also<sub>18</sub>.

### Figure 6

Figure 6: *Trigonella Foenum*



*Trigonella foenum*, commonly known as Fenugreek belonging to the family fabaceae. Fenugreek leaves are rich in calcium, iron vitamin C and vitamin A. They are commonly used for cooling the body, reducing the mucus in sinus and asthmatic conditions. They soothe down persistent cough and lower cholesterol. They are also used in skin irritation, sores, tumours and wounds, biliousness, stomach problem, headache, insomnia, constipation and duodenal ulcers and for mouth ulcers and sore throat. *Trigonella foenum* has analgesic effect also. The researches have shown that the analgesic effect of *trigonella foenum* is due to the blocking of spinal purinoceptors.

Supplementation of the diet with fenugreek leaves showed a significant effect on hyperglycaemia, hypoinsulinaemia and glycosylated haemoglobin in streptozotocin diabetic rats<sub>19</sub>. Fenugreek leaves improved the body weight and liver glycogen. Fenugreek leaves also showed a significant effect on key carbohydrate metabolic enzymes in diabetic rats. Thus, fenugreek leaves exhibited antidiabetic action in streptozotocin-induced diabetic rats<sub>20</sub>. The aqueous extract of

the leaves of *Trigonella foenum* shows hypoglycaemic effect. The extract of the leaves also shows antinociceptive effect<sub>21</sub>. Intraperitoneal administration of aqueous leaf extract of *Trigonella foenum* for one month could improve some functional indices of the vascular system in the diabetic state and endothelium-derived prostaglandins are essential in this respect<sub>22</sub>.

### Figure 7

Figure 7: *Amaranthus Paniculatus*



*Amaranthus paniculatus* is commonly used as a coolant, which is best for eye related problems. It protects hair and improves overall health. It is used for stomach problems especially constipation. The aqueous extract of *Amaranthus paniculatus* leaves was found to have radioprotective effect in whole body gamma radiation<sub>23</sub>. *Amaranthus paniculatus* was also found to have antioxidant activity and moderate free radical scavenging activity<sub>24</sub>.

**Figure 8**

Figure 8: *Sesbania Grandiflora*



*Sesbania grandiflora* commonly called sesbania is widely used in Indian folk medicine for the treatment of liver disorders and renal calculi. The leaf extract of *Sesbania* was found to have significant protective effect against erythromycin-estolate induced hepatotoxicity<sup>25</sup>. Cigarette smoke is a major risk factor of coronary heart disease, myocardial infarction and cardiac death as it contains large amounts of oxidants. *Sesbania grandiflora* through its high antioxidant potential protects the heart from the oxidative damage<sup>26</sup>. Researchers have pointed out the antiurolithiatic activity of *S. grandiflora* against calcium oxalate type stones and have proven to be beneficial in the treatment of renal calculi<sup>27</sup>. In ayurveda this plant is widely used in the treatment of epileptic fits. The triterpene fraction of the leaves of *S. grandiflora* exhibits a broad spectrum of anticonvulsant and anxiolytic activity<sup>28</sup>.

**Figure 9**

Figure 9: *Spinacia Oleracea*



It is otherwise called spinach and is rich in vitamin A, potassium and iron. It has a laxative effect and is wonderful in weight loss diets. The leaves are mainly used in the treatment of pernicious anaemia, low vitality and neuralgia. Cooked spinach vegetable, when taken regularly protects against cancer. It also lowers blood sugar. Spinach when used as a gargle is good for sore throat. Spinach is a coolant and so good for urinary problems. It improves the blood count and purifies it. It improves digestion and growth. The spinach that grows close to the ground can be used to cure some skin problems such as eczema and other skin irritants.

Spinach carotenoid combats prostate cancer whereas spinach flavanoid combats ovarian cancer<sup>29,30</sup>. Continuous intake of spinach protects against osteoporosis, heart disease, colon cancer, arthritis, and other diseases at the same time. Cooked spinach is an excellent source of iron. Lutein, a carotenoid which protects eye diseases such as age-related macular degeneration and cataract, is found in green vegetables, especially spinach. The magnesium and riboflavin in spinach may help to reduce the frequency of migraine attacks in people. Spinach is also good for bone health; bone health is not contributed by the calcium but by the high content of vitamin K, vitamin A and magnesium. Vitamin K is necessary to regulate calcium within the body.

Figure 10

Figure 10: *Murraya Koenigi*



The curry leaves are fair sources of vitamin A but rich in calcium. The leaves are used in indigenous medicine as a tonic, stimulant, stomachic and carminative. The leaves taken with pepper in the morning in empty stomach reduce blood sugar. An infusion of the roasted leaves is used to relieve vomiting. It strengthens the body and is good for reducing acidity and related problems. The fresh curry leaves have volatile oils, chlorophyll, terpenes and antioxidants which contribute to the hypoglycemic effect and increased insulin secretion<sup>31</sup>. Curry leaves is an excellent remedy for calcium deficiency. Hence regular intake of curry leaves improves bone health, health of teeth and hair growth<sup>32</sup>.

**CONCLUSION**

The olden days were exotic, in which the people were healthy, suffering from little diseases compared to the present, which is full of disastrous diseases. Earlier they relied on greens, while the modern youth rely on fast foods. Life expectancy was more in past, as they treated root causes of the diseases while we treat the symptoms, welcoming the disease to spread drastically. It is the time to think! We should return to the greens, for a better future, because the diets rich in green leafy vegetables are an integral part of healthy life style. The greens can be incorporated in creative and interesting ways, as they give the vitamins, minerals and fiber associated with a healthy life, reducing the risk of diseases. In a society that is at once overweight and malnourished, green vegetables are best, easiest and most natural weapon to fight against the deadly scourge diseases.

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