THE SECRET HEALTH BENEFITS OF EDIBLE SEAWEEDS - SEA VEGETABLES

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Abstract

If you thought vegetables only grew in soil on land, you’re mistaken. Simple to cook and easy to serve in your favourite dishes, sea vegetables are plentiful, full of flavour and have a gamut of health benefits. Nutritionists and chefs around the world consider sea vegetables as pearls of the vegetable family as they add depth to cooking repertoire. Sea vegetables are neither plant nor animals but classified in a group known as ‘algae’ popularly “Seaweeds”. They commonly grow on coral reefs or in rocky landscapes and can be found in the sea. This article provides an overview of edible seaweeds.

Key Words: Sea vegetables, Nutrients, Antioxidants, Edible seaweeds.

Introduction

Sea vegetables consumption enjoys a long history throughout the world. Archaeological evidence suggests that Japanese have been consuming sea vegetables for more than 10,000 years. In ancient Chinese cultures, sea vegetables were a noted delicacy, suitable especially for honoured guests and royalty. Korea, Vietnam, and Malaysia are other Asian countries where sea vegetables are widely consumed. Yet, sea vegetables were not just limited to being a featured part of Asian cuisines. In fact the countries located by waters, including Scotland, Ireland, Norway, Iceland, New Zealand, the Pacific Islands and coastal South American countries have been consuming sea vegetables since ancient times.

Sea vegetables have 10 – 20 times more nutrients and minerals than land vegetables. In addition, sea plants are an excellent source of iron, calcium, isode, proteins, amino acids, fatty acids and vitamins. For example, wakame and hijiki contain calcium 10 times more than that of milk. The minerals in sea vegetables exist in chelated, colloidal form that makes them readily ‘bio available’ for use in body functions. Population studies showed that people with a regular intake of sea vegetables led to reduced symptoms of mineral depletion and longevity of people in Okinawa (Island in Japan)1.

Figure 1: Some of the important seaweeds.

Nutritional value of edible sea-weeds

As discussed, seaweeds are great source of magnesium, potassium and calcium. Deficiency of these minerals may result in muscle cramps, which can be reversed with regular consumption of seaweeds. Sea weeds also contain unique phyto-nutrients, like sulphated polysaccharides (fucoidan). Unlike land vegetables, sea vegetables need not depend on carotenoids and flavonoids for antioxidant properties, as they contain other types, including alkaloid anti oxidants2. Sea vegetables also contains other nutrients such as isode, vitamin C, manganese, vitamin B2, vitamin A (in the form of carotenoids), panthenic acid, potassium, iron, copper, zinc, vitamin B6, niacin, phosphorus, and vitamin B1.

Over the last few decades, researchers have discovered that a diet rich in sea vegetables may reduce the risk of diseases like cancer, osteoporosis and obesity, in addition, helps the body eliminate toxins by improving water metabolism3. In Chinese medicine, seaweeds were claimed to have cooling effect in the body, cleanse the blood, softens the hard lumps and cysts. Nutrients in sea vegetables were found to cleanse the colon and improve digestion and absorption. Scientists at the University of Newcastle-upon-Tyne have found that alginate, the sticky starch present in brown sea vegetables, can strengthen gut mucus, slow down digestion and make food release its energy more slowly4.

Sea vegetables contains good amount of bioavailable iron. One tablespoon of dried sea vegetable contains 12-35 mg of iron, which is also accompanied by a measurable amount vitamin C. Since vitamin C increases the bioavailability of plant iron, this combination in sea vegetables was found to be beneficial.

A study comparing the faecal flora resulting from the Japanese diet with that of Western diet found that the Japanese diet leads to increased number of beneficial aerobic microorganisms5, which may be due to the antibiotic activity of sea vegetables that destroys harmful anaerobic bacteria.

Brown algae (including the commonly eaten, Kombu /kelp and Wakame) were found to be unique among the sea vegetables in their iodine content. Some species from the brown algae genus Laminaria can accumulate iodine up to 30,000 times more concentrated than sea water.

Health benefits of edible seaweeds

An increasing number of health benefits from sea vegetables are being explained by their fucoidan content. Fucoidans are starch-like (polysaccharide) molecules, but they are unique in their complicated structure (which involves a high degree of branching) and their sulphur content. Numerous studies have documented the anti-inflammatory benefits of fucoidans (sometimes referred to as sulphated polysaccharides) in osteoarthritis6.

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The secret health benefits of edible seaweeds - sea vegetables

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India has a rich heritage of traditional medicine and healing practices. This article explores the osteoprotective properties of several Indian herbs and medicinal plants, focusing on their role in promoting bone health. The review highlights the importance of incorporating these natural remedies into the diet to support overall health and wellness, especially in preventing osteoporosis.

**Abstract**

Natural herbs have been widely used in orthopedic clinical practice in India, China, and other countries since ancient times. The increase in aging population and the prevalence of osteoporosis demands new therapeutic agents and nutritional supplements for the promotion of bone health. The Indian diet includes rich medicinal herbs. This review intends to highlight scientific information on naturally-occurring herbs consumed regularly in Indian diet which have been documented to possess osteoprotective properties.

**Key Words:** Indian medicinal plants, herbs and bone, osteoprotective.

**Introduction**

Traditional herbal medicines have been used for the treatment of various diseases, since they are considered less toxic and free from side effects when compared with synthetic drugs. Natural herbs have been widely used in orthopedic clinical practice in India, China and other countries since ancient times. India being one of the richest countries in herbal resources, the food items enacts maintained of human diet (vegetables, fruits, nuts, seeds, etc.) have identified certain food types that are expected to reduce the risk of oxidative stress and many types of cardiovascular problems.

**Conclusion**

The broad range of minerals provided by sea vegetables makes them a great addition to the healthiest way of eating. One easy way is to keep a container of kelp flakes on the dinner table and use it instead of table salt for seasoning foods. It can also be added to vegetable dishes, salads, and miso soups, as they do not require cooking.

**REFERENCES**

11. Herbs and bone. Cissus quadrangular Linn. (C. q.) belongs to family Vitaceae, is an indigenous medicinal plant of India. It is
cucumber, cabbage, red cabbage, dill, garlic, wild garlic, leeks, leeks, turnips, and Chinese parsley, common parsley and tomatoes. Women (45-55 years) who had consumed high amounts of fruits and vegetables in childhood showed higher bone mineral density (BMD) of the femoral neck than those that had consumed medium/low amounts. Pubertal children who have consumed fruit and vegetables > 3 times per day showed better bone health, and the radius in particular. Not only in human beings, experimental studies in rats maintained of human diet (vegetables, fruits, nuts, seeds, mushrooms, etc.) have identified certain food types that have inhibited bone resorption.

**Herbs and bone**

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