let sol food be your medicine

Seabuckthorn Puree has unique health benefits
Seabuckthorn is one of the world’s most nutritionally complete foods. Solberry Seabuckthorn is grown in Canada without use of pesticides, herbicides or fertilizers. Ongoing research indicates that the strong anti-inflammatory properties of seabuckthorn are due to the unique combination of over 190 bio-available nutrients found in this berry. One tablespoon of Solberry Seabuckthorn is a natural, non-citrus, gluten-free nutritional powerhouse.

- Vitamin C, E and A
- B1, B2, B5, B9 and B12
- Vitamins D, P and K
- Serotonin
- B-Sitosterol
- Proteins
- Fibre
- Minerals
- Omega 7
- Omega 3, 6 and 9
- Carotenoids
- Flavonoids

**Anti-inflammatory and Immune enhancer** Unique balance of tocopherols, carotenoids, flavonoids, fatty acids and vitamins help to neutralize free radicals.

**Promotes skin health** High concentration of vitamin C, E, A and Omega 7 promotes skin hydration, elasticity & skin tissue regeneration.

**Help with weight management** Omega 7 in combination with flavonoids in seabuckthorn signals to adipose tissue of the body to stop storing fat.

**Reduce arthritic inflammation** Strong anti-inflammatory properties and rich composition of nutrients can help to relieve arthritic pain and reduce inflammation.

**Relieves dry eyes** Unique bio-active compounds help to alleviate inflammation and positively affect the tear-film fatty acid profile of the eye.

**Promotes healing of ulcer & acid reflux** Beta-Sitosterol and Omega 7 can help soothe the mucosal tissue in the digestive tract.

**Helps to alleviate liver damage** Oils in Seabuckthorn have a liver protective activity due to its potent antioxidants and Omega 7.

**OMEGA FATTY ACIDS**
Seabuckthorn is a natural source of Omega 3, 6, 9. Combination of Omega fatty acids in seabuckthorn has shown healing and anti-inflammatory effects.

**OMEGA 7 FATTY ACID**
Seabuckthorn is the richest source of naturally occurring Omega 7 (Palmitoleic Acids). This rare fatty acid shows promise for improving gastrointestinal, cardiovascular, digestive health and inflammation response. It is also a nutrient for hair, skin, and nails. Omega 7 is found in the pulp of seabuckthorn berries, it’s rare in the plant kingdom, and even scarcer in the animal world.

**CAROTENOIDS**
Seabuckthorn is a source of carotenoids - powerful antioxidants, that can prevent cellular damage by neutralizing free radicals.

**PHYTOSTEROLS AND POLYPHENOLS (PLANT STEROLS)**
Plant sterols occur naturally in seabuckthorn. Studies have shown that plant sterols mimic cholesterol in the small intestine and partly block cholesterol absorption. Seabuckthorn is a significant source of beta-sitosterol that may reduce blood cholesterol and alleviate symptoms of prostate issues.

**PROTEINS**
Seabuckthorn is high in proteins, especially globulins and albumins, known for delivering nutrients to vital organs and protecting the immune system.

**SEROTONIN**
Serotonin’s effects are well known: immune-inductor, energizer, anti-depressant. Serotonin is known to regulate aging, learning and memory.

**MINERALS**
Manganese, Potassium, Magnesium, Phosphorus, Calcium, Zinc, Iron

**Seabuckthorn Nutritional Profile**

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Seabuckthorn is the richest source of rare Omega 7 Fatty Acid in the world.

Omega-7 helps to regulate body fat accumulation.
Seabuckthorn Research

SEABUCKTHORN AND WEIGHT MANAGEMENT

The study from Finland concluded that intake of seabuckthorn and blueberries for a period of 1 month induced significant effects on overall metabolic profiles of overweight women. Blueberries and seabuckthorn promoted a slight decrease in waist circumference and body weight. Study conducted by Korean scientists confirmed that seabuckthorn leaves have potential metabolic and antioxidant effects.

NEUROPROTECTIVE EFFECT OF SEABUCKTHORN—EXPERIMENTAL MODELS

This study conducted on human brain tissue has found that an extract prepared from seabuckthorn berries and leaves protected human neural cells from oxidative stress. Seabuckthorn was found to support brain functioning and to be an antidepressant-like effect of powdered seabuckthorn (Hippophae rhamnoides L.) leaves in diet-induced obese mice. Lee HI, Kim MJ, Choi MJ, Lee MW, Kim IH, Park SH, Seo KJ, Kim MJ, Kim NJ, Cho YJ, Lee JK, Food and Nutrition, Suncheon National University, Suncheon 540-74, Korea.

ANTIDEPRESSANT-LIKE EFFECTS OF SEABUCKTHORN FRUIT

The therapeutic goal in the treatment of major depression is to improve quality of life by normalising mood and reversal of functional and social disabilities associated with depression. The study that aqueous fruit extract (40 mg/kg) of Seabuckthorn exhibited significant antidepressant-like effects and may serve as a potential resource as a natural psycho-therapeutic agent, against depression in humans.

EFFECT OF SEABUCKTHORN ON INFLAMMATION

254 healthy volunteers were randomly assigned to receive seabuckthorn or a placebo product during the study. In the seabuckthorn group the serum CRP concentrations decreased significantly. A decrease in serum C-reactive protein indicates anti-inflammatory effect of seabuckthorn and its positive effect in management of arthritic pain and inflammation.

SEABUCKTHORN AS A PREBIOTIC SOURCE PROMOTES BENEFICIAL GUT FLORA

Digestive stability of seabuckthorn polyphenols was investigated in vitro model. The study found that seabuckthorn polyphenols increased proliferation of good bacteria including Lactobacillus acidophilus, Bacteroides/Prevotella and Bifidobacterium by 35%, 71% and 17% respectively. The gastric and small intestine digestion of seabuckthorn polyphenols created a mild alkaline condition, activated digestive enzymes and led to an increase in antioxidant activity.

SOURCE


2. Effects of seabuckthorn oil on vaginal atrophy in postmenopausal women: A randomised, double-blind, placebo-controlled study. Petra S. Larmo, Basirin Yang, B. Juha Hyysälä, Heikki K. Kolari, and Risto Erikkola, Department of Obstetrics and Gynecology, University Central Hospital of Turku, Finland.


4. A recent study conducted at the University of Manitoba, concluded that the cardio-protective effects of seabuckthorn flavonoids have been attributed to their ability to increase circulating lipid markers and prevent risk factors of coronary heart disease.

5. Study conducted by Korean scientists confirmed that seabuckthorn leaves have potential metabolic and antioxidant effects.

6. The study in experimental models of depression found that aqueous extract of seabuckthorn (Hippophae rhamnoides L.) fruits in experimental models of depression. Farhat Bato, Alisha Kamal, et al. Biochemical Neuropsychopharmacology Research Laboratory, Department of Biochemistry, University of Karachi, Karachi-75270, Pakistan.


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5. Effects of seabuckthorn and bilberry on serum metabolites differ according to baseline metabolic profiles in overweight women: a randomized crossover trial! A Petra S Larmo, Antti J Kangas, Pasi Salmi, Nina-Maria Lehtimäen, Juulia Peikka Suomela, Bauo Yang, Jorma Vihko, Mikko Ako-Korpela, and Hekki P. Kallio. Finland.
7. of antioxidant and neuroprotective effect of seabuckthorn (Hippophae rhamnoides L.) on oxidative stress induced cytotoxicity in human neural cell line IMR32. Shivapriya a, *K, Ranga a, G.P. Dubey a,b.
12. Colonic fermentation of polyphenolics from Seabuckthorn (Hippophae rhamnoides) berries: Assessment of effects on microbial diversity by Principal Component Analysis. Sampson Affi Kavita Sharma et al. Department of Biotechnology and Bioinformatics, Jaypee University, 2017.
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Benefits of Omega 7 in Seabuckthorn

**OMEGA 7 – ROLE IN THE HUMAN BODY**
Omega 7 Fatty Acid (Palmitoleic Acids) plays a critical role in the human body improving insulin sensitivity, decreasing C-reactive protein hence reducing inflammation, decreasing the body’s ability to store fat, decreasing incidence of diabetes and improving lipid profile by lowering total cholesterol.

Seabuckthorn is the main food source of Omega 7. It is an essential component for healthy skin and mucous membranes.

Mucous membranes cover the digestive, respiratory, and urogenital tracts and the inner surface of eyes. They are important channels for interactions between the body and the environment and are the major routes for pathogens, toxins and allergens to enter the body.

**OMEGA 7 – URINARY AND GENITAL TRACTS HEALTH**
Seabuckthorn oil lubricates and relieves feeling of dryness and irritated mucosa of the urinary system and genitals. Seabuckthorn oil can be used both internally and externally for mucosal dryness. A randomized, double blind, placebo controlled study in Finland\(^1\)\(^4\) has shown beneficial effects of seabuckthorn on vaginal health, indicating a potential alternative for mucosal integrity for those women not able to use estrogen treatment for vaginal atrophy. Besides the valuable fatty acids; Omega 3, 6, 7 and 9, seabuckthorn oil is also a great source of vitamin E and vitamin A (from beta-carotene). Vitamin A contributes to the maintenance of normal skin, mucous membranes and vision.

**OMEGA 7 – GASTROINTESTINAL HEALTH**
Symptoms such as excess acidity, ulcers, indigestion, and other gastrointestinal discomfort like acid reflux often eased when seabuckthorn is taken regularly. GI issues are reduced or eliminated as a result of better lubrication. Studies have shown\(^1\)\(^4\) that seabuckthorn oil protects the mucous membranes of the stomach and the intestines. It can help treat damage caused by chemicals, stress and diet.

**OMEGA 7 – RELIEF OF DRY EYES**
Omega 7 fatty acid lubricates the mucous membranes, which helps with dry eyes. Dry eye is a common condition characterized by symptoms of visual disturbance and discomfort. It is sustained and intensified by inflammation. The effect of seabuckthorn oil on dry eyes is due to the combination of carotenoids, vitamins and Omega 7 fatty acids. In a study\(^1\) of 100 participants, seabuckthorn oil had positive effects on tear film osmolarity and symptoms of dry eye.

**OMEGA 7 – ATOPIC DERMATITIS AND ECZEMA**
Seabuckthorn has an incredible composition of skin-specific nutrients like carotenoids, and polyphenols, but Omega 7 as well as Omega 3, 6 and 9 is particularly important when it comes to soothing dry skin and combating eczema and atopic dermatitis. Omega 7 provides a natural barrier to keep moisture in the skin and boosts collagen production in skin tissue. During a study\(^1\) of 49 atopic dermatitis patients changes in plasma lipids were controlled and the condition of the dermatitis was significantly or remarkably lower after 1 month and 4 months of consuming seabuckthorn.

**OMEGA 7 – RELIEF OF ACUTE AND CHRONIC WOUNDS**
Seabuckthorn oil preparations have been used for treating skin radiation lesions, burns and gastric ulcers. The protective and curative effects of seabuckthorn against wounds, burns, scalds, ulcers and mucosal injuries have been extensively investigated using animal models and by clinical trials. The studies confirmed reduction in wound area, collagen synthesis and stabilization at wound site. Seabuckthorn treatments increased levels of antioxidants and decreased lipid peroxide levels in wound granulation tissue.

What makes Seabuckthorn a powerful food?

This tiny yellow-orange berry is approximately one third of the size of a blueberry, yet packs 12 times the amount of Vitamin C as an orange. With high amounts of protein, fibre, antioxidants, vitamins and minerals, this berry is an amazing food. The vitamins, minerals, phytosterols and their trace elements will produce both their singular benefits as well as cumulative which provides the nutritional power of seabuckthorn. Canadian grown Seabuckthorn is a gift of Nature that is one of the world’s healthiest foods. Seabuckthorn has over 190 bio-available micro-nutrients.

![Nutrient Chart](www.solberry.ca)
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Seabuckthorn Leaf Tea

Solberry Seabuckthorn leaf herbal tea is a treasure that is grown on the Canadian prairies. Solberry Herbal Leaf Tea is caffeine-free and grown without pesticides, herbicides or fertilizers.

**Nutrient Contents**
- Serotonin
- Protein
- Antioxidants
- Magnesium
- Potassium
- Manganese
- Vitamins
- Polyphenols
- Phytosterols

**Health Benefits**
- Caffeine-free
- Anti-Inflammatory
- Anti-bacterial
- Anti-stress
- Anti-viral
- Increases metabolic rate
- Expedite recovery time

**Comparison of Antioxidants (Plant Phenols) in Solberry Seabuckthorn Leaf**

St. Boniface Research Centre, Manitoba, Canada

<table>
<thead>
<tr>
<th>Plant</th>
<th>mg GAE (antioxidant content) per 100g sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seabuckthorn</td>
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<tr>
<td>Oregano</td>
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<tr>
<td>Parsley</td>
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<td>Hibiscus</td>
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<tr>
<td>Green Tea</td>
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