

Sea buckthorn oils, skin, mucous membranes and Sjögren's syndrome



Sea buckthorn and health of skin and mucous membranes

Dry, sensitive and inflammatory skin and mucosa are commonly found even among those generally considered as healthy. Medical solutions for these problems are rather limited and often unsuccessful. Dietary management providing nutritional supports are initiative measures to maintain the health of mucous membranes.

Sea buckthorn has been used to treat problems in mucous membrane such as infection in respiratory system and gynaecological problems since ancient times. Over 200 bioactive components have been found in sea buckthorn, of which many are concentrated in the oil fraction of the seeds and the fruit pulp/peel. High levels of a full range of beneficial fatty acids, natural antioxidants, vitamins and plant sterols have been well characterised in sea buckthorn oils. Clinical and experimental investigations have shown multiple beneficial effects of the oils on skin and mucous membranes (Figure 1). Promoting tissue regeneration, improving immune function, reducing lipid peroxidation

and inflammation are clearly the fundamentals of these effects (1).

Sea buckthorn oils have been successfully used to speed up the healing of wounds, burns and scalds in skin and to relieve the symptoms of atopic skin. Both protective and curative effects of sea buckthorn oils on gastric and duodenal ulcers have been demonstrated in clinical and experimental studies. Promoting the regeneration of mucosa, speeding up the epithelialisation of ulcer areas, increasing the hydrophobicity of the surface of mucosa, reducing gastric secretion, inhibiting proteolytic activity, and retarding gastric emptying have been suggested to be the mechanisms involved. In addition to fatty acids and natural antioxidants, β -sitosterol and β -sitosterol- β -D-glucoside in sea buckthorn oils are important for the anti-ulcerative activity.

Orally taken sea buckthorn seed and pulp oils improved the mucosa problems caused by irradiation therapy. Topically applied sea buckthorn seed oil improved ulcerative stomatitis of children and of patients with leukemia.

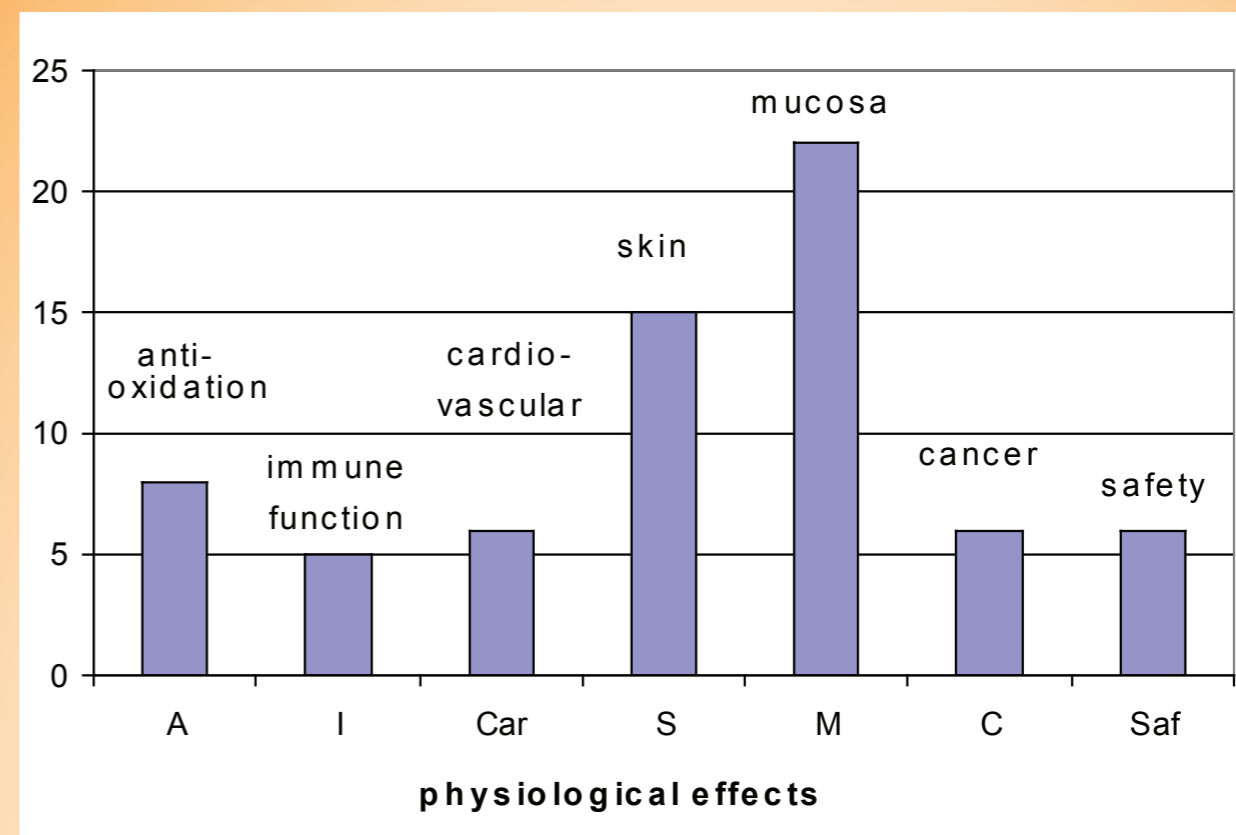


Figure 1. Health effects of sea buckthorn oil published in literature (2).

Omega7® Membrasin® Sea Buckthorn Oil Capsule: substantiated efficacy based on standardized quality

Compositions of sea buckthorn berry and oils vary greatly with subspecies, varieties growth conditions, berry harvesting times. Technologies used for raw material handling and oil manufacturing also significantly influence the composition of the end product and in the end have a clear impact on the health effects. Omega7® Membrasin® (trademarks of Aromtech Ltd, Finland) is a vegetable-based food supplement product containing standardized sea buckthorn oil SBA 24, manufactured from sea buckthorn berries of the best quality, using modern supercritical CO₂ extraction technology. The positive effects of Omega7® Membrasin® Sea Buckthorn Oil Capsule on skin and mucous membranes have been demonstrated in a number of well-designed scientific investigations.

Omega7® Membrasin® and skin

Omega7® Membrasin® oils improve atopic eczema (3)
Omega7® Membrasin® oils have anti-inflammatory and analgesic effects (4)

Omega7® Membrasin® and mucous membranes

Omega7® Membrasin® oils protect gastric mucosa, cure gastric ulcer (5)
Omega7® Membrasin® improves dry mouth conditions (6)

Omega7® Membrasin® regenerates uro-genital mucous membranes (7)

Omega7® Membrasin® and cardiovascular health

Omega7® Membrasin® oils increase the HDL cholesterol (3)

Omega7® Membrasin® Sea Buckthorn Oil Capsule improves chronic vaginal inflammation

Chronic inflammation in vaginal mucosa is often presented as itching, burning, pain and increased vaginal discharge. Treatment has often been empirical and, in many cases, inefficient. Five subjects suffering from the above described conditions and resistance to a multitude of treatments, three of the subjects additionally suffering from lichen rubus planus, took orally Omega7® Membrasin® 3 capsules x 2 times per day (equalling 3 g oil per day), for 12 weeks. Patients assessed the four symptoms by applying a visual analogue scale (VAS from 0 for no symptom to 100 for the most severe situation) before and after the treatment. Significant improvement was seen in three severe cases after sea buckthorn oil treatment (Table 1). The average total score value decreased by 46 % by sea buckthorn oil treatment. The positive effects of Omega7® Membrasin® on vaginal inflammation were based on non-hormonal mechanisms since the plasma estrogen levels were not changed by the treatment.

Table 1. Total VAS scores of four symptoms and subjective assessment of vaginal inflammation.

subject	VAS before treatment	VAS after treatment	Subjective improvement
1	86	127	No
2	15	15	Slight
3	378	127	Great
4	240	103	Good
5	204	127	Good
Average	185	100	

Omega7® Membrasin®, dry mouth and Sjögren's syndrome

Dry mouth, often a result of salivary gland malfunction, is a common clinical complaint affecting up to 40 % of adults, mainly women and the elderly. It provokes unpleasant oral symptoms such as burning mouth, difficulty in speaking, chewing and swallowing. Four weeks of oral treatment with SBA24 Omega7® Membrasin® capsules (5 g oil per day) effectively relieved the dry mouth and improved the general conditions of mouth mucosa (6)

Dry mouth, dry eyes, dry and inflammatory vagina and fatigue are often typical symptoms of Sjögren's syndrome. Omega7® Membrasin® sea buckthorn oil was compared with fractionated coconut oil (as placebo) in the effects on Sjögren's syndrome (SS) in a double blind, cross-over study. Twenty three female SS patients with typical symptoms of dryness, pain and itching in the genital tract mucosa were included. The patients took the two products in two separate periods, each lasting for three months. The daily dosage was six capsules (3.0 g oil). Twelve typical symptoms of SS including dry mouth, dry eyes, dry nose, fatigue, joint pain, atopic skin, pale finger and previously described conditions of the genital mucosa were evaluated using a visual analogue scale (VAS) method before and after each treatment period. Compared with the placebo, the use of Omega7® Membrasin® resulted in a higher rate of improvement in all the twelve symptoms of SS ($P < 0.01$). The positive effect of Omega7® Membrasin® was especially clear on the conditions of vaginal

mucosa (Figure 2). The difference between Omega7® Membrasin® and the placebo was statistically highly significant ($P < 0.01$). The results suggest that Omega7® Membrasin® Sea Buckthorn Oil Capsule may present a promising alternative for improving the condition of the mucosa of Sjögren's syndrome patients (7).

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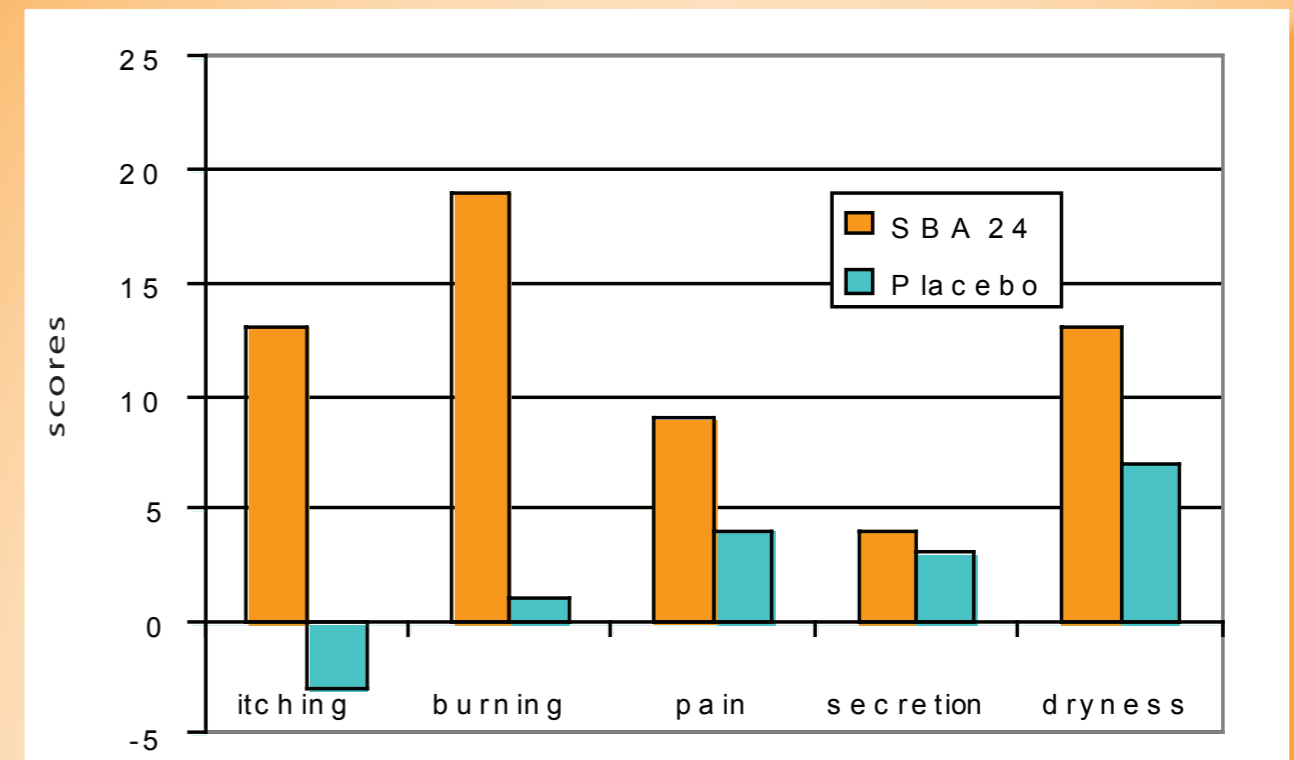


Figure 2. Scores describing improvement in the vagina after the treatments measured by Visual Analogue Scale (8). Scores 1= improved case, 0 = unchanged case, -1 = worsened case

Contact information:

Omega7® Membrasin® Sea Buckthorn Oil Capsule is available through distributors in over 10 countries in Europe and overseas. Please contact Aromtech for details of the closest point of service and availability:

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