Seaweed nutrition research concludes that regular dietary seaweed can ameliorate many of the risk factors associated with pervasive, non-communicable diseases including cardiovascular, obesity, hypertension, endothelial dysfunction, diabetes, and disproportionate cellular free radical production. These have been the focus of **Seagreens®** research programme since 2008. *Seagreens information website link:* A Role for Dietary Macroalgae Cornish 2015.

3 short summaries are enclosed in the pages following, which focus on aspects of cardiovascular health from **Seagreens** archive: *Cardiovascular benefits / Reduction in blood sugar / Overfed rats research Yamori et al 1986*.

A rare study in children references international data including the Yamori rat study, in which seaweed is an antidote to excess salt. It shows a beneficial association between dietary seaweed and blood pressure, and again underlines the benefit of replacing normal salts with Seagreens <u>The Mineral Salt</u> and <u>The Ruby One</u> which contain a rich natural balance of all the minerals and other micronutrients with up to 75% less sodium chloride. The salt is in any case re-balanced by the seaweed minerals. *Seagreens information website link:*

Seaweed intake and blood pressure levels in Japanese children Wada 2011.

A short article by the founder of the **Seagreens** project, explains. *Seagreens information website link:* <u>Why Seaweed and Salt is Better than Salt Alone PH 2017</u>.

Thank you for requesting this information. Please ask if I can help in any other way.

Kind regards

Simon Ranger Seagreens® Information Service

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Seagreens® cardiovascular benefits

Effect on blood cholesterol levels

seaweed dietary polysaccharide in high fat diets decreases uptake of fats, reduces plasma cholesterol (Nishide et al, 1993, Kimura et al, 1996, Jiminez-Escrig, Sanchez-Muniz, 2000)

Effect on blood glucose levels

seaweed dietary polysaccharide reduces rise in blood peak glucose (-31%) and plasma insulin (-42%) in Diabetes Type II and healthy patients (Torsdottir et al, 1991, Wolf et al, 2002)

Fucoidans have anticoagulant activity

seaweed polysaccharide has natural blood anticoagulant effect similar to drug heparin

(Colliec et al, 1991, Albuquerque et al, 2004, Silva et al, 2005, Pomin et al, 2005)

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The reduction of high blood sugar and triglyceride levels, and activation of enzymes involved in the betaoxidation of fatty acids which can be useful in the prevention and treatment of hyperlipidemia (71); an inhibitory effect on the generation of thrombin (61); the hypertensive effect of its special range of polysaccharides including laminin; and it has been shown to 'mimic' heparin, exhibiting the same anticoagulant activity (65, 66, 67) and a higher antiproliferative activity (70). Its anticoagulant activity chiefly relates to the breakdown of fats in the blood.

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"It was discovered that when stroke-prone rats were overfed salt, only those also fed seaweed powder did not have strokes; the seaweed was an antidote to excess sodium consumption" (27)

- (27) Y. Yamori et al., *Dietary Prevention of Stroke and Its Mechanisms in Stroke-Prone Spontaneously Hypertensive Rats Preventive Effect of Dietary Fibre and Palmitloleic Acid*, Journal Hypertens 4(3):S449-S452, 1986.

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