



## PRODUCT BRIEFING



# Glyc+Omega™ OIL

## GREENSHELL™ MUSSEL OIL

Research has shown the Omega-3s in Greenshell Mussel Oil to be critical to joint health, respiratory health, cardiovascular health, cholesterol, HDL and triglyceride levels. Omega-6s and other types of fats in our diets leave our cell membranes rich in precursors associated with inflammatory processes, which can lead to arthritis, asthma, heart disease, depression, and psoriasis. Scientific research indicates that we need to reduce omega-6s and increase omega-3s to improve our health.

In a double-blind trial at West Glasgow Hospital University NHS Trust, two-thirds of rheumatoid and osteoarthritis patients showed a significant improvement.

The results from this paper have been published in the journal *Complementary Therapies in Medicine*. (Sept. 1998)

For generations, the native coastal Maori population of New Zealand has consumed raw New Zealand green-lipped mussels as a primary part of their diet. This unique mussel is known scientifically as 'Perna canaliculus'. For centuries, it has provided an excellent source of protein, vitamins, minerals and extremely valuable Omega-3 fatty acids.

For many hundreds of years, the Maoris would harvest the mussels growing naturally on the seashores and eat them raw. Even though they saw the mussel as an important part of their diet, they did not realise the benefits they were gaining. The green lipped mussel possesses a profile of Omega-3 essential fatty acids that are unique to its species.

The presence of this rich source of essential fatty acids provides the mussel with potent soothing action. The observation that Maoris who regularly consumed green shell mussels suffered less arthritis than their inland relatives, led to the research and development of marketable antiarthritic products. The green shell mussel (*Perna canaliculus*) is also called green-lipped mussel or New Zealand mussel.

Green shell mussel products are widely used in dietary supplements as anti-inflammatory agents to fight asthma, arthritis, pain, and inflammation. The Omega-3 fatty acids in the mussel are responsible for the anti-inflammatory effects. Aroma's GlycOmega™OIL is a unique combination of different non-polar lipid groups and Omega-3 polyunsaturated fatty-acids. These essential acids are extracted from the New Zealand green-lipped mussel (*Perna Canaliculus*) by supercritical fluid extraction process using liquidified CO<sub>2</sub>. GlycOmega™OIL is only processed from live cold opened greenshell mussel meat, which is blended with a botanical anti-oxidant to stabilize the omega-3 and lipid fraction.

This unique marine green-lipped mussel oil product has been exposed to critical review by many research institutions worldwide. It is proven to have significant anti-inflammatory activity in vitro in inhibiting leukotriene synthesis and in vivo by markedly reducing the severity of adjuvant-induced polyarthritis in rats. Various publications have been released confirming these results, including the completion of a human double-blind study conducted at the Glasgow Hospital.

**PURE NEW ZEALAND PRODUCT • SUSTAINABLE • BSE FREE • NO TOXIC CHEMICALS OR SOLVENTS • NO IRRADIATION**



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**PHYSICAL ASPECT:** GlycOmega-Oil is a reddish-orange colour with a slight mussel odour.

**STORAGE:** Keep in cool dark room out of direct sunlight.

**PACKAGING:** Available in 10kg plastic containers.

**GMO:** This product is GMO-free, does not undergo any radiation treatment or contain any ingredient treated by radiation.

### TECHNICAL DATA

	Result
Total fat	99.1g/100g
DHA	12.3g/100g
EPA	19.4g/100g
DPA	1.0g/100g
ALA	3.4g/100

Supports  
connective  
tissue and joint  
function.

Contains  
a unique  
combination of  
30 essential fatty  
acids.

Beneficial  
to heart and  
respiratory  
health.

## WHAT IS THE SCIENCE BEHIND GREENSHELL MUSSEL OIL?

Greenshell Mussel Oil has been the subject of numerous scientific studies, each demonstrating unique benefits from its pure ingredients. The unique grouping of Omega-3 fatty acids in Greenshell Mussel Oil are potent inhibitors of the lipoxygenase (5-lipoxygenase) pathway, which is where leukotrienes are produced, resulting in the down-regulation of the production of these harmful, inflammation-causing substances. Numerous clinical studies have linked the omega-3s in green-lipped mussels to measurable health benefits, including a study at the University of California which linked these omega-3s to reduced arthritic symptoms. (See *Allergy Immunol* (Paris), Sept. 2000;32(7):272-8).

## CLINICAL STUDIES

### Systematic review of the nutritional supplement *Perna Canaliculus* (green-lipped mussel) in the treatment of osteoarthritis

1/25/2008 | S. Brien, P. Prescott, B. Coghlan, N. Bashir and G. Lewith

From the Department of Primary Care, University of Southampton, Aldermoor. Health Centre, Aldermoor Close, Southampton, Hampshire, S016 5ST and School of Mathematics, University of Southampton, Southampton, Hampshire S017 1BJ, UK.

### Novel anti-inflammatory omega-3 PUFAs from the New Zealand green-lipped mussel

8/1/2007 | Comp Biochem Physiol B Biochem Mol Biol. 2007 Aug;147(4):645-56. Epub 2007 Apr 14

Treschow AP, Hodges LD, Wright PF, Wynne, PM, Kalafatis N, Macrides TA. Natural Products Research Group, School of Medical Sciences, RMIT University, Bundoora, Victoria, 3083, Australia.

### Immunomodulation of marine collagen-induced arthritis by N, N-dimethylglycine and a preparation of *Perna canaliculus*

6/11/2007 <http://www.biomedcentral.com/1472-6882/7/20>

### Clinical efficacy and tolerance of an extract of greenlipped mussel (*Perna canaliculus*) in dogs presumptively diagnosed with degenerative joint disease

6/1/2006 | N Z Vet J. 2006 Jun;54(3):114-8

Pollard B, Guilford WG, Ankenbauer-Perkins KL, Hedderley D. Institute of Veterinary, Animal and Biomedical Sciences, Massey University, Private Bag, 11222, Palmerston North, New Zealand.

### In vitro modulation of inflammatory cytokine and IgG levels by extracts of *Perna canaliculus*

1/13/2006 | BMC Complement Altern Med. 2006 Jan 13;6:1 Mani S, Lawson JW.

Department of Microbiology and Molecular Medicine, Clemson University, Clemson, SC 29634, USA. sachin\_mani@excite.com

### Improvement of Arthritic Signs in Dogs Fed Green-Lipped Mussel - *Perna canaliculus*

6/1/2002 <http://jn.nutrition.org/cgi/content/full/132/6/1634S>

### Anti-inflammatory effects of a stabilized lipid extract of *Perna canaliculus*

9/1/2000 | Halpern GM. Allergy Immunol (Paris). 2000 Sep;32(7):272-8, University of California, USA

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