

# Shrimp as Health Food

Seafood is an important constituent of the human diet. The consumers are looking at sea food as health food due to its fatty acid profiles. Shrimp is one of the world's most popular shellfish and is part of almost every nation's traditional meal.

The nutritional quality of shrimp is associated with its quantitatively lowest fat (1.1%) among all the non vegetarian food items. The fat is mainly made up of long chain omega-3- highly unsaturated fatty acids (HUFA). These are absent in terrestrial meats which have high saturated fatty acids (SFA). HUFA mainly plays major role in heart protection, improving cognitive skills and preventing certain type of cancers. One serving (100g) shrimp will provide 70% of the daily needs of these healthy fatty acids like eicosapentanoic and docosahexanoic acids.



A healthy diet should have a PUFA/SFA ratio at least 0.54 and above. The shrimps assessed in our study had superior values (1.9) indicating its richness of PUFA. Shrimp is a rich source of protein and is well balanced in all the essential amino acids. 100g of shrimp is considered to provide one third to one half of one's daily protein requirement. The shrimp is also a rich source of phosphorous, potassium, selenium and zinc apart from vitamins. Shrimp also contains carotenoid (astaxanthin), a potent natural anti-oxidant.

Shrimp contains moderate levels of cholesterol (180 mg%) and is much lower than in egg (400 mg%). Recent epidemiological studies clearly indicates that the amount of SFA consumption have more influence on serum cholesterol levels rather than the cholesterol intake per se. Human clinical study by Rockefeller University, USA, showed<sup>9</sup> that moderate shrimp consumption in normolipidemic individuals will not adversely affect the

## Principal nutrients and energy content of shrimp

Nutrient	Value
Protein (%)	19.4
Fat (%)	1.1
Carbohydrate (%)	0.5
Minerals (%)	1.5
Energy (Kcal/100g)	90





overall serum cholesterol profiles. It is to be noted that United States Food and Drug Administration Advisory of 2006 clearly advocates consumption of two meals of shellfish (shrimp) per week. The consumption this mouth-watering shrimp helps in improving health as indicated below and can be included in 'heart healthy' nutritional guidelines.



## Health benefits of eating shrimp

- Shrimp is a protein source that has low fat and low saturated fatty acids and can contribute to low-calorie diets for weight -loss prescriptions.
- Omega-3 fatty acids in shrimp, prevents formation of blood clots.
- Shrimp eating reduces blood triglycerides which prevents the risk of heart attacks.
- Moderate amounts of cholesterol in shrimp does not have any deleterious effect on normolipidemic individuals
- Carotenoids with its antioxidant properties prevent plaque formation in arteries by arresting LDL (bad) cholesterol oxidation.
- Eating of shrimp is beneficial for favourable brain function with its high DHA
- Grilling and steaming will protect HUFA content in shrimp.
- Health benefits are due to the complimentary effect of the combined nutrients present in shrimp including fatty acids, proteins, trace minerals and carotenoids.

More information is available in the '*Shrimp health food advisory fact sheet*' in CIBA website <http://www.ciba.res.in>



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