

Sea Mustard

aka “*Miyeok*”(Korean) or “*Wakame*”(Japanese)

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6/5/2013



What is Sea Mustard?

It's a sea vegetable mostly popular in Eastern Asia that has a subtly sweet flavor and most often served in soups and salads. Sea farmers in Japan have grown it since the Nara period and it became available in the US in the 70s as sushi restaurants and Asian markets became prevalent. It is bought usually in the dried form and can be soaked in water before preparing.

Possible Health Benefits

- It is a rich source of eicosapentaenoic acid, an omega-3 fatty acid. At over 400 mg/100 kcal or almost 1 mg/kJ, it has one of the higher nutrient:calorie ratios for this nutrient, and among the very highest for a vegetarian source (1).
- A typical 1-2 tablespoon serving of wakame contains roughly 3.75–7.5 kcal and provides 15–30 mg of omega-3 fatty acids.
- Sea mustard's nutritional value also indicates high levels of calcium, iodine, B vitamins, iron and magnesium.
- As part of ancient wisdom, in Oriental medicine it has been used for blood purification, intestinal strength, skin, hair, reproductive organs and menstrual regularity.
- New studies conducted at Hokkaido University have found that a compound in sea mustard known as fucoxanthin can help burn fatty tissue(3).

Benefits for pregnant and post-labor moms?

In Korea, the sea mustard soup *miyeokguk* is popularly consumed by women after giving birth because of sea mustard's high content of calcium and iodine, nutrients that are important for nursing new mothers. Many women consume it during the pregnancy phase as well.

Typical Preparations

The leaves should be cut into small pieces as it typically comes in the dry form and expands when soaked in water before cooking in soup or salad. As mentioned above, in Korea, it is mostly prepared as the soup *miyeokguk*, with anchovie or beef based broth seasoned with light soy sauce. In Japan, it is usually used in miso soup or as a side salad with other vegetables such as cucumbers accompanied by dressings made with soy sauce and rice vinegar.

Nutritional Value

Nutritional value per 100 g (3.5 oz)	
Energy	188 kJ (45 kcal)
Carbohydrates	9.14 g
- Sugars	0.65 g
- Dietary fiber	0.5 g
Fat	0.64 g
Protein	3.03 g
Thiamine (vit. B ₁)	0.06 mg (5%)
Riboflavin (vit. B ₂)	0.23 mg (19%)
Niacin (vit. B ₃)	1.6 mg (11%)
Pantothenic acid (B ₅)	0.697 mg (14%)
Folate (vit. B ₉)	196 µg (49%)
Vitamin C	3 mg (4%)
Vitamin E	1 mg (7%)
Vitamin K	5.3 µg (5%)
Calcium	150 mg (15%)
Iron	2.18 mg (17%)
Magnesium	107 mg (30%)
Manganese	1.4 mg (67%)
Phosphorus	80 mg (11%)
Sodium	872 mg (58%)
Zinc	0.38 mg (4%)

Source: USDA Nutrient Database

(1) "545 foods highest in 20:5 n-3". Nutritiondata.com (retrieved 6/5/2013)

(2) Maeda, H.; Hosokawa, M.; Sashima, T.; Funayama, K.; Miyashita, K. (2005). "Fucoxanthin from edible seaweed, *Undaria pinnatifida*, shows antiobesity effect through UCP1 expression in white adipose tissues". *Biochemical and Biophysical Research Communications* 332 (2): 392–397