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(51) Int. Cl 4 Classification Symbol	Internal No.	(43) Publication Date
A 23 L 1 / 42	8412 - 4B	August 13, 1985
A 61 K 9 / 48	6742 - 4C	
31 / 355 ADL	7330 - 4C	

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Request for Review Unrequested Number of Claims 1 (Total 2 Pages)

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(54) Title of Invention	Nutritional Supplement	
	(21) Application Number	Sho 59 - 10625
	(22) Application Date	January 24, 1984
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### Specification

#### 1. Title of Invention

Nutritional supplement

#### 2. Scope of Claims

(1) A nutritional supplement being contained inside a gelatin capsule and comprising a nutritional liquid being formed by melting vitamin E, soybean lecithin in an oil having high eicosapentaenoic acid content.

(2) A nutritional supplement of claim 1 wherein the oil having high eicosapentaenoic acid content is a sea animal oil such as pilchard oil, mackerel oil, cuttlefish oil, krill oil, or mink oil.

#### 3. Detailed Explanation of the Invention

The present invention relates to a new nutritional supplement having as its primary ingredients vitamin E, soybean lecithin, and an oil having high eicosapentaenoic acid content. In recent years, the demand for nutritional supplements has greatly increased due to factors such as (1) lack of nutritional balance brought about by a rich food culture, (2) pickiness and lack of food diversity caused by a selective food palette, (3) lack of nutrition brought about by a breakdown in balance of nutrition and health, exercise, and energy, and (4) the necessity for supplementary nutrition to correspond to an aging population. In particular, the desire to stem adult disease by the improvement of food life is strong, so people enjoy eating nutritional supplements.

The present invention arises out of the aforementioned nutritional needs and its object is to provide a new nutritional supplement from the combination of vitamin E, which (1) prevents the aging of cells, (2) lowers cholesterol and prevents the hardening of arteries, (3) prevents the occurrence of liquid fatty deposits and encourages cell life, (4) cleans and washes blood vessels and prevents brain or heart blood clots; soybean lecithin, which (1) encourages the absorption of vitamin E and eicosapentaenoic acid, (2) reduces cholesterol and prevents hardening of blood vessels and oil having high eicosapentaenoic acid content, which is effective anti-platelet aggregation, making it an anti-coagulant and acts to prevent the hardening of blood vessels.

In other words, the present invention is a nutritional supplement consisting of vitamin E and soybean lecithin melted in an oil having high eicosapentaenoic acid content in liquid form inserted into a gelatin capsule.

As for the vitamin E used in the present invention, items obtained by publicly known methods such as concentration by chromatography or molecular distillation of plant oils are appropriate, but the method of production thereof is not limited, and the source of energy is also not limited.

Vitamin E is included in great amounts in safflower oil, rice oil, corn oil, and other oil from water dwelling plants. However, the concentration

of the oil is at most 0.5%, so using any of these as-is is not desirable. The amount of vitamin E included in the present invention must be at least 1% of the liquid included in the capsule. If less than this concentration is achieved the activity of the vitamin in the body is reduced, and the benefits of vitamin E cannot be achieved.

Also, soybean fatty substance containing soybean oil obtained by dehydrating and drying gum produced by the production of soybean gum is generally acceptable for the soybean lecithin used in conjunction with vitamin E, but it is also acceptable to use lecithin that has been sugared and concentrated via acetone or alcohol, and it is also possible to use separated lecithin that contains little of no keratin.

This soybean lecithin must be present in the liquid that is inserted into the capsule in a concentration of at least 1%. As noted before, if the concentration falls below this level the effects of the substance will not be sufficient. In addition, for oil with a high concentration of eicosapentaenoic acid (C20 : 5) that has vitamin E and soybean lecithin dissolved within it, an oil with a eicosapentaenoic acid content of 8% or higher may be used, such as that found in sea animal oils such as pilchard oil, mackerel oil, cuttlefish oil, krill oil, or mink oil, or an oil that was derived from one of the above and had was concentrated with respect to eicosapentaenoic acid content.

The concentration of oil having a high concentration of eicosapentaenoic acid in the present invention must be at least 10% of the volume of liquid in the capsule. If this concentration is not achieved then the effect of the oil in the body will be lacking and as noted before the

Below, the embodiments of the present invention are explained.  
Embodiment 1.

25 parts vitamin E and 25 parts soybean lecithin are dissolved into 50 parts fish oil (containing 16% eicosapentaenoic acid), heated to around 60 degrees Celsius, and dried.

Then 60 parts gelatin, 30 parts glycerin, and 10 parts water are uniformly mixed, are made to take a film like form, are poured into a 300 milligram capsule and put into a gelatin container. The aforementioned compound is poured into this container, the entry point is heat sealed, and the nutritional supplement of the present invention is formed.

Embodiment 2

30 parts vitamin E by weight and 30 parts soybean lecithin are dissolved into a 1:1 mixture of safflower oil and market concentrated eicosapentaenoic acid oil (produced by Nippon Yushi Co. Ltd., Sun Omega, and containing 25% eicosapentaenoic acid), the mixture being 40 parts. The liquid is heated to around 60 degrees Celsius and dried.

Then 60 parts gelatin, 30 parts glycerin, and 10 parts water are uniformly mixed, are made to take a film like form, are poured into a 300 milligram capsule and put into a gelatin container. The aforementioned compound is poured into this container, the entry point is heat sealed, and the nutritional supplement of the present invention is formed.

effects will not be sufficient. A nutritional supplement formed by melting vitamin E and soybean lecithin in oil with a high concentration of eicosapentaenoic acid, within the scope wherein it is possible to maintain the relative levels of the various substances, may be diluted with safflower oil, rice oil, corn oil, soybean oil, or seaweed oil or other sea life oil. Mixed oil obtained in this way is inserted into a gelatin capsule under normal circumstances.

As one example of the method of sealing the substance in a capsule, the mixed liquid will be sealed in a gelatin capsule in a certain amount, the gelatin formed by melting gelatin, glycerin, and water. After that, the entry hole will be heated and sealed to create the nutritional substance of the present invention.

The form of the gelatin capsules may be spherical or in the form of a rugby ball.

Because the nutritional supplement of the present invention obtained in this way contains vitamin E which prevents the aging of cells, lowers cholesterol numbers, prevents excess fat deposits, and has other positive side effects, as well as contains soybean lecithin, which acts to lower cholesterol and promote the absorption of eicosapentaenoic acid, and contains eicosapentaenoic acid, which acts to prevent the hardening of blood vessels, the combined effects of the various ingredients act to reduce the cholesterol levels in the blood, prevent high blood pressure, reduce fat, and promote heart and brain function in brain and heart medical patients, and acts to treat and prevent adult circulatory diseases, and as such can be said to function as a nutritional supplement.