Vitamin A, Vitamin D and Cod Liver Oil: Some Clarifications
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Several visitors to our website have noted inconsistencies in various statements about vitamin A, vitamin D and cod liver oil. These issues revolve around questions of dosage and safety.

Vitamin A Dosage:

We have pointed out that concerns about vitamin A toxicity are exaggerated. While some forms of synthetic vitamin A found in supplements can be toxic at only moderately high doses, fat-soluble vitamin A naturally found in foods like cod liver oil, liver, and butterfat is safe at up to ten times the doses of water-soluble, solidified, and emulsified vitamin A found in some supplements that produce toxicity. [1] Additionally, the vitamin D found in cod liver oil and butterfat from pasture-raised animals protects against vitamin A toxicity, and allows one to consume a much higher amount of vitamin A before it becomes toxic. [1, 2, 3] Liver from land mammals is high in vitamin A but low in vitamin D, and should therefore be consumed with other vitamin D-rich foods such as lard or bacon from pasture-raised pigs, egg yolks, and oily fish, or during months in which UV-B light is sufficient to provide one with adequate vitamin D.

As a general guideline, we recommend the following doses of vitamin A from cod liver oil, along with a nutrient-dense diet that contains other vitamin A-rich foods:

- **Children age 3 months to 12 years:** A dose of cod liver oil that provides about 5000 IU vitamin A daily
- **Children over 12 years and adults:** A maintenance dose of cod liver oil that provides about 10,000 IU vitamin A daily
- **Pregnant and nursing women:** A dose of cod liver oil that provides about 20,000 IU vitamin A daily

Individuals under stress or wishing to use cod liver oil to treat a disease condition may take much larger doses, even up to 90,000 IU vitamin A per day, for a period of several weeks.

Vitamin D

The recommended dosages for cod liver oil provide about 500 IU vitamin D for children, 1000 IU vitamin D for adults, 2000 IU vitamin D for pregnant and nursing women and up to 9000 IU for those taking large amounts of cod liver oil to deal with stress and disease.

In 1997, the Food and Nutrition Board of the US Institute of Medicine set the tolerable upper intake level (TUIL) for vitamin D at 2000 IU per day. However, the vitamin D content experts on the Upper Limits Panel objected to this limit, and several prominent vitamin D researchers have called for an upward revision of the limit. Experiments show that even during the winter with a low vitamin D intake, humans will exhaust stores of vitamin D at a rate of 3000-4000 IU per day, an amount that many people require to maintain optimal levels of the vitamin in the blood. Extensive exposure to summer sun at mid latitudes naturally produces levels of vitamin D in the blood equivalent to what is attained by supplementing with a continued daily dose of 10,000 IU, suggesting humans are designed to tolerate such large amounts of vitamin D. [4]

If you are a lifeguard or spend a lot of time in the sun, you do not need to take supplemental vitamin D; however you still need to consume adequate vitamin A. Animal studies show that even moderate amounts of vitamin D increase the body's need for vitamin A, whether the vitamin D is provided in the diet or by UV light [2, 5] So, if you cut back or eliminate cod liver oil in the summer, be sure to consume plenty of oily fish, liver, butterfat and egg yolks from grass-fed hens to ensure adequate vitamin A.
For a discussion of Vitamin D Toxicity, see http://www.cholecalciferol-council.com/toxicity.pdf

This does not mean we do not recommend that some individuals have their vitamin D levels tested. Such testing can be very useful in determining vitamin D status and the effectiveness of cod liver oil or vitamin D supplements.

Cod Liver Oil

As of June 2007, we recommend the following brands of cod liver oil:

In Stores: Garden of Life, regular dose cod liver oil

By Mail Order:
- Dr. Ron's High Vitamin Old Fashioned Blue Ice Pure Cod Liver Oil, 1-877-472-8701, www.drrons.com
- Radiant Life, Premier High Vitamin Cod Liver Oil, (888) 593-8333, www.radiantlifecatalog.com
- Blue Ice, High Vitamin Cod Liver Oil, (402) 338-5551, www.greenpasture.org
- In Europe, Healthspan Ltd., 0800 73 123 77, www.healthspan.co.uk
- In Australia, Melrose cod liver oil, email: geoff@melrosehealth.com.au

Note that 1 scant teaspoon of regular dose cod liver oil provides about 5,000 IU vitamin A while 1 scant teaspoon of high-vitamin cod liver oil provides over 11,000 IU vitamin A. This extra vitamin A helps to protect the polyunsaturated fatty acids from becoming oxidized after they are incorporated into the cell membrane. [6] High-vitamin cod liver oil also contains a higher proportion of vitamin D than does regular-dose cod liver oil, which is necessary to balance the vitamin A.

Some of the brands recommended in various articles on our website we no longer endorse because the manufacturer is removing vitamin A out of concerns of toxicity. An adequate dose of vitamin A-reduced cod liver oil may supply more unsaturated fatty acids than is considered safe.

Warning: Many brands of cod liver oil are processed to remove all the vitamins A and D and then have synthetic vitamins A and D added back in. These products should be completely avoided as the synthetic versions of A and D are toxic. For those living in Canada or overseas, where our recommended brands are not available, be sure to contact the manufacturer and inquire whether the A and D in their cod liver oil is naturally occurring or synthetic.

References

http://www.westonaprice.org/cod-liver-oil/238.html#clarify