# Fish Oil and Fat-Soluble Antioxidants for Each Metabolic Type

Posted by: Dr. Mercola
August 20 2003 | 14,099 views

One of the best things you can do to prevent heart disease, cancer, depression and Alzheimer's disease and treat rheumatoid arthritis, diabetes, ulcerative colitis, Raynaud's disease and a host of other diseases is increase your intake of the omega-3 fats found in fish oil.

However, as you increase your intake of essential fatty acids like omega-3, you also increase your need for **fat-soluble antioxidants**. Why? Because fish oil is extremely perishable, and the antioxidants will ensure that the fish oil doesn't oxidize and become rancid in your body. **Fat-soluble antioxidants have the ability to neutralize free radicals in fats, whereas water-soluble antioxidants cannot.**

Ensuring that you have plenty of fat-soluble antioxidants will make certain that you receive the maximum benefits that fish oil has to offer.

## What type of fish oil is best?

When choosing your fish oil or cod liver oil, it is important to remember that not all brands are the same. Certain brands definitely seem inferior to others. Do your research.

## What type of fat-soluble antioxidant is best?

As you likely know if you have been following this newsletter, we each have a unique biochemistry that requires different foods to run at its most optimum level. Your ideal combination of protein, fat and carbohydrates is largely dependent on your **metabolic** or nutritional type. Along these lines, your nutritional type will also determine which type of fat-soluble antioxidant will be most beneficial for your unique chemistry.

## Different Metabolic Types:

### Carbohydrate Types

**Carb types normally feel best when the majority of their food is carbohydrate**. However, just as we only have one word for snow while the Eskimos have many more, we only have one word for carbs while there are actually different types. There is a major difference between vegetables and grains and yet they are both referenced as "carbs." Sticking to low glycemic and nutrient dense organic fruits, vegetables and grains is the healthiest option. Keeping insulin levels balanced with low glycemic foods is the best way to stay healthy.

Fresh vegetable **juice**, made from a variety of carb-type vegetables such as cucumbers, collard greens, red leaf lettuce, tomatoes and swiss chard, **is the best source of antioxidants for a carb nutritional type**. You should drink the juice at the start of a meal for best results.

A vitamin E supplement, which is what is commonly thought of when speaking of fat-soluble antioxidants, is not a priority for carb types, who are typically **slow oxidizers**. Too much vitamin E will only serve to further slow down a carb type's oxidation rate.

If you are a carb type and you choose to take vitamin E, you should be sure to only take the dry form of vitamin E, D-alpha tocopherol succinate, as opposed to the oil form, and you should take no more than 100 units a day. If you can only find 200 unit capsules, you will need to break the capsule in half to get the proper dosage. A great food source of vitamin E is leafy green vegetables.

Supplements such as CoQ10, **lipoic acid** and vitamins A and D are also beneficial.

## Protein Types

**Protein types do better on low-carbohydrate, high-protein and high-fat diets**. A typical ratio might be 40 percent protein and 30 percent each of fats and carbohydrates, but the amounts could easily shift to 50 percent fats and as little as 10 percent carbohydrates depending on individual genetic requirements.

The oil form of vitamin E is most appropriate for protein types, who are typically fast oxidizers. You can take 800 units of vitamin E in two doses, one in the morning and one in the evening.

**Protein types can also benefit from fresh vegetable juice**, but it should consist of only protein-type vegetables like celery, spinach, cauliflower and asparagus. Celery and asparagus make an especially tasty combination.

In order to keep the optimum metabolic balance, protein types should drink vegetable juice after their meal.

## Mixed Types

**If your Nutritional Type™ is mixed, your requirements are between the carb and protein types**.

A person with a **mixed nutritional type will also benefit from the antioxidants in fresh vegetable juice**. Additionally, you may want to consider taking a vitamin E supplement.

Mixed types should take the oil form of vitamin E with mixed tocopherol/tocotrienols in a dose of 400 units per day.

Supplements such as CoQ10, **lipoic acid** and vitamins A and D are also beneficial.

## Ration confusion

In regards to what ratios of protein, carbs and fats you should eat, don't stress out about the percentages; they are only rough guidelines. Even if they needed to be precise, you wouldn't take the time or make the effort to eat exact percentages of foods every single time you ate, especially for the rest of your life.

Additionally, your activity and stress levels will affect and alter the quantity of food, as well as the ratio of proteins, fats and carbohydrates, you need to feel your best.

Last, there is also a circadian rhythm to account for. Your biochemistry moves through various phases throughout the day. These rhythms involve your hormonal output, your acid/alkaline shifts, your waking/sleeping times and many other time-based variables. While some people will have a need for

the same ratios of protein, fat and carbs at each meal, others will discover that they need very different ratios at the different meals in order to derive optimum energy, well being and performance.

## What is the Solution?

Well, you will find the program, outlined in detail in my new book, is really quite simple and straightforward. In general, you first start by eating the proportions of proteins, fats and carbs according to your taste and appetite.

Next, analyze your reactions to your meal and discover how well you did in selecting the right ratios for yourself. A table to help you do this is provided below so you can take a look, and this table is also included in the book.

Finally, if you did not react optimally to your meal, change the ratios the next time you eat that meal and again analyze your reactions. In this way you can fine-tune each meal to the ratios of proteins, fats and carbs that are just right for you.

As an example of how the ratios can make a difference, I used to have a salad with some meat in it for lunch. However, several hours later I would feel absolutely famished, and I could not make it through the afternoon without strong food cravings. Then I realized I needed far more fat in my diet, in my case about 40 percent. Once I increased my fat intake my cravings disappeared.

Remember that you should feel terrific one hour after you eat. If you are still having food cravings or your energy level is lower, these are giant clues that you are likely not eating appropriately for your Nutritional Type™.

To learn more about Metabolic Typing, click here to read an article contributed by William Wolcott, who is the author of The Metabolic Typing Diet.

**Personal Note:**

In my opinion and through extensive research, there is validity to **Metabolic Typing**. It has a very strong correlation to the Blood Type Diet, which considers how food affects our genetic predispositions.

Click here to download a short Metabolic Typing Questionnaire so you can have an idea of what ratios of foods you should be eating.

Click here for ordering instructions on any of the above recommended supplements.

**Trish Leclair**

**Reference website pages:**

http://articles.mercola.com/sites/articles/archive/2003/08/20/fish-oil-part-fifteen.aspx

http://articles.mercola.com/sites/articles/archive/2003/02/26/metabolic-typing-part-three.aspx

http://articles.mercola.com/sites/articles/archive/2002/12/18/metabolic-typing-part-one.aspx