

Health News from 3Care Therapeutics

Research Compilation

Omega-3 News has presented many fresh studies showing the numerous health benefits of omega-3 over the last year. This week we decided to send out a compilation summarizing a few of the recent studies we may have missed. The focus of these studies is on three areas that should be of concern to all of us; cancer, weight loss, and inflammation, which in many cases is related to both of the former.

Fish Oil and Cancer

- A new study published in the *Journal of Urology* reports that decreased levels of omega-6 fatty acids (commonly found in vegetable oils) and increased concentrations of omega-3 fatty acids can reduce the growth of prostate cancer cells. This was determined via a dietary intervention trial involving 18 men with prostate cancer conducted at the Los Angeles Veterans Administration Department of Surgery.
- The addition of DHA (docosahexaenoic acid) to conventional chemotherapy significantly improved the outcomes of treatment in 25 women with “rapidly progressing” breast cancer. The authors of the study state that DHA appears to accomplish this by sensitizing tumors to the chemotherapy. Another positive finding was that the fish oil did not cause any additional adverse effects.
- A new German trial determined that 1.5 grams/day of “marine phospholipids” consisting of DHA and EPA can promote a weight stabilizing effect in frail patients with advanced cancer. The term “marine phospholipid” refers to fish oil that is encapsulated in a sort of lecithin-type carrier or escort (a “liposome”) which allows for better absorption and retention in the body.

Fish Oil and Weight

- A presentation in the November 2009 edition of *Obesity Reviews* concluded that the “omega-3 polyunsaturated fatty acids, eicosapentaenoic acid and docosahexaenoic acid, can protect against the development of obesity in animals” and “reduce body fat in humans”. This group of Australian researchers suggests that these effects may be due to appetite suppression, fat cell destruction (adipocyte apoptosis) and genetic changes in fatty tissue which could discourage “fat deposition”.
- A recent trial in the *British Journal of Nutrition* examined the omega-3 fatty acid levels of 124 adults of varying weights - 21 healthy volunteers, 63 obese, and 40 overweight. It was noted that the obese participants had significantly smaller amounts of omega-3’s in their systems. The authors also reported that higher levels of omega-3s were associated with a healthier body mass index, hip circumference and waste circumference. The conclusion of the study states: “Our findings suggest that n-3 PUFA may play an important role in weight status and abdominal obesity”.

- A combination of fish oil and olive oil might increase the “fat burning” (fat oxidation) potential of exercise. These effects were noted in a controlled experiment which involved 16 healthy, but sedentary men who engaged in a 10 day diet and exercise program.

Fish Oil and Inflammation

- 38 dogs with osteoarthritis were randomly assigned to one of two diets: **a)** a commercial dog food diet or **b)** a dog food enriched with 3.5% fish oil for 90 days. Several key benefits were noted in the dogs receiving the omega-3 dog food: an improvement in “peak vertical force” and weight bearing, and a decline in lameness.
- A separate experiment published in the *Journal of the American Veterinary Medical Association* tested the effect of a dog food that was high in fish oil (omega-3 fats) and low in omega-6 fatty acids in a larger group of osteoarthritic dogs (127 in total). Half of the canines were fed a conventional dog food and the remainder received the experimental food for 6 months. Symptomatic changes were noted by the pet owners and via blood testing and medical exams. An increase in plasma omega-3 and a reduction in omega-6 fatty acids were noted in the experimental group. The owners of the dogs receiving fish oil reported greater displays of strength, as assessed by “rise from a resting position and play” and improvements in walking ability.
- New evidence contained in the February 2010 issue of *Biochemical Pharmacology* finds that a combination of *curcumin*, an extract from turmeric, and fish oil may provide a potent and synergistic anti-inflammatory punch. Even “very low dosages” of curcumin and DHA/EPA were capable of suppressing a variety of inflammatory markers in a laboratory setting. There were also signs of antioxidant activity, most likely due to the inclusion of curcumin. Both of these substances are well known to bring about anti-inflammatory effects. What’s new here is the possibility of an additive effect when both substances are taken together.

Eating Nuts Helps to Control Cholesterol Levels

The review of 25 studies, involving nearly 600 people, showed eating a small amount of nuts on a daily basis (67g on average) can reduce cholesterol levels by 7.4%.

The US Loma Linda University team believes nuts may help prevent the absorption of cholesterol.

Previous work has indicated that eating nuts regularly is beneficial, but this Archives of Internal Medicine study set out to put an accurate figure on the effect.

“The effects of nut consumption were dose related, and different types of nuts had similar health effects.”

Lead researcher Joan Sabate

Participants in the study ate 67g of nuts per day on average, over a period of three to eight weeks. As well as improving cholesterol levels, nut consumption also reduced the amount of triglyceride, a type of blood fat that has been linked to heart disease.

However, the impact was least pronounced among the overweight.

It is not yet clear why nuts have this lipid profile improving effect, although one suggestion is that it is largely related to the plant sterols they contain, which are thought to interfere with cholesterol absorption. Also, many nut varieties contain healthy fatty acids, such as omega-3 fatty acids.

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