

# Fish Oils and Psoriasis

## Summaries of the latest research concerning fish oils and psoriasis

### Fish oils in treatment of psoriasis

GIESSEN, GERMANY. Psoriasis is a fairly common skin disease characterized by thick, silvery white scales surrounded by a red, inflamed border. Psoriasis is accompanied by high concentrations of arachidonic acid in the plaques and profound changes in the metabolism of eicosanoids leading to an increase in proinflammatory agents. It is known that eicosapentaenoic acid (EPA) counteracts the formation of these proinflammatory agents and some studies have shown that oral supplementation with fish oils benefits psoriasis patients. A team of researchers from Austria, the Czech Republic, the Slovak Republic, Germany, and Poland now report that intravenous infusions of a fish oil emulsion is quite effective in ameliorating the symptoms of chronic plaque-type psoriasis. Their double-blind, randomized, placebo-controlled, multicenter trial involved 54 men and 29 women between the ages of 18 and 80 years who had been hospitalized with severe psoriasis. The patients were randomized into two groups. Group 1 (43 patients) received twice daily infusions of a fish oil emulsion (100 ml of a 10% emulsion infused over a period of 90 minutes) while group 2 (40 patients) received twice daily infusions of a placebo emulsion based on linoleic acid. The severity of the psoriasis was assessed by physicians on days 0, 4, 7, 11 and 15 of the two-week trial. Sixteen of the 43 patients (37%) receiving fish oil showed at least a 50% improvement in their condition at the end of the trial as compared to 9 out of 40 patients (23%) in the placebo group. The researchers conclude that intravenous administration of a fish oil emulsion is safe and effective in the treatment of chronic plaque-type psoriasis and plan further work to determine if once daily infusions would be equally effective. NOTE: This study was funded in part by Fresenius AG, a manufacturer of fish oil emulsions. *Mayser, Peter, et al. Omega-3 fatty acid-based lipid infusion in patients with chronic plaque psoriasis: results of a double-blind, randomized, placebo-controlled, multicenter trial. Journal of the American Academy of Dermatology, Vol. 38, April 1998, pp. 539-47/*

### EPA and etretinate alleviate psoriasis symptoms

OTSU, JAPAN. Etretinate is a powerful drug used to treat skin disorders such as psoriasis. It can cause serious adverse effects when used in the regularly prescribed dose of about 1 mg/kg per day. Researchers at the Shiga University of Medical Science now report that a combination of eicosapentaenoic acid (EPA) and etretinate at a lower dose (0.3 - 0.5 mg/kg per day) works as well as the pure, high-dose and has significantly fewer side effects. Their clinical trial included 40 psoriasis patients who were randomly assigned to receive either 20 mg etretinate daily (in capsules) or 20 mg etretinate plus 1800 mg of EPA ethyl ester (in capsules). After 12 weeks the participants were examined to determine the extent of improvement. Forty-five per cent of the patients in the combination group showed excellent improvement (greater than 75%) as compared to 15% in the pure etretinate group. The time to achieve a 50% improvement in symptoms was also considerably shorter in the combination group (5.1 weeks) than in the monotherapy group (7.6 weeks). Adverse reactions such as inflammation of the lips, dry mouth and eyes, and scaling were observed in both groups, but were mild and tolerable. The researchers conclude that the combination regimen is effective in the treatment of psoriasis without marked adverse reactions. *Danno, Kiichiro and Sugie, Nobuo. Combination therapy with low-dose etretinate and eicosapentaenoic acid for psoriasis vulgaris. Journal of Dermatology, Vol. 25, 1998, pp. 703-05 /*

## Topically applied fish oil alleviates psoriasis

BUENOS AIRES, ARGENTINA. Itching, scaling, and erythema (abnormal flushing of the skin) are common features of psoriasis, a fairly common skin disorder. One of the main characteristics of psoriasis is an increased concentration of arachidonic acid and its metabolite, leukotriene B<sub>4</sub>, in and around psoriatic plaque. It is well-established that fish oils suppress the formation of leukotriene B<sub>4</sub> so researchers at the University of Buenos Aires Faculty of Medicine decided to investigate whether topical application of fish oil to skin areas affected by psoriasis would alleviate the symptoms. Their clinical trial involved 25 patients with psoriasis who were randomly assigned to apply either fish oil or liquid paraffin to their psoriatic plaques and leave them covered for 6 hours overnight under an occlusive dressing. The treatment was repeated daily for a 4-week period. Fish oil proved highly effective in reducing scaling (severity of scaling went from an average rating of 2.91 to 0.32 on a scale from 0 to 4), plaque thickness (from a rating of 2.21 to 0.52), and erythema (from a rating of 2.71 to 0.90). Itching was not relieved by the fish oil treatment. The 4-week liquid paraffin treatment was also effective in reducing erythema, but was significantly inferior to the fish oil treatment in reducing scaling and had no significant effect on itching or plaque thickness. Both treatments were well accepted by the patients and the researchers conclude that they are both clinically effective with the fish oil treatment being superior to the paraffin treatment. *Escobar, S.O., et al. Topical fish oil in psoriasis: a controlled and blind study. Clinical and Experimentology Dermatology, Vol. 17, 1992, pp. 159-62 /*

## Fish oil and margarine don't go together

ADELAIDE, AUSTRALIA. Fish oil supplements containing EPA (eicosapentaenoic acid) have an anti-inflammatory effect and may benefit people suffering from rheumatoid arthritis and \*psoriasis\*. This beneficial effect is significantly reduced when the diet is high in linoleic acid. A seven week controlled experiment involving 30 male volunteers was recently completed in Australia. The participants were given 1.6 gram EPA and 0.32 gram DHA (docosahexaenoic acid) daily. Half the volunteers were kept on a diet high in linoleic acid by using margarine as a spread and polyunsaturated oils for cooking. The other half used butter and olive oil which are low in linoleic acid. The experiment clearly showed that the incorporation of fish oil is enhanced by a diet containing butter and fish oil. Margarine and polyunsaturated oils had an inhibiting effect and should therefore be excluded from the diet in order to obtain maximum benefit from fish oil. *Cleland, Leslie G., et al. Linoleate inhibits EPA incorporation from dietary fish-oil supplements in human subjects. American Journal of Clinical Nutrition, Vol. 55, February 1992, pp. 395-99/*

## Fish oils reduce psoriasis symptoms

SHEFFIELD, UNITED KINGDOM. Psoriasis is a relatively common skin disorder that affects between one and two per cent of the population. Itching, scaling, and erythema (abnormal flushing of the skin) are common features. Abnormal levels of leukotrienes (metabolites of arachidonic acid) are believed to be involved in the development and progression of the disorder. Eicosapentaenoic acid (EPA), a major component of fish oils, is known to dampen the adverse effects of leukotrienes and has been proven to have significant anti-inflammatory effects. Medical doctors at the Royal Hallamshire Hospital have just released the results of a clinical trial designed to evaluate the effects of oral supplementation with fish oils in the treatment of psoriasis. The 28 patients involved in the trial had all been diagnosed with chronic psoriasis. They were randomized into two groups with one group receiving 10 fish oil capsules (containing 1.8 grams of EPA) and the other group receiving 10 olive oil capsules every day for the duration of the 12-week trial. After 8 weeks of treatment there was a significant reduction in itching, erythema and scaling in the fish oil group and a trend towards a decrease in the surface area of skin affected by the disease. No significant changes occurred in the placebo group. The researchers conclude that fish oil supplementation is useful in the treatment of psoriasis particularly when itching is a major problem. / *Bittiner, S.B., et al. A double-blind, randomised, placebo-controlled trial of fish oil in*

psoriasis. The Lancet, February 20, 1988, pp. 378-80/ Coromega \*Additional References\* 1. Soyland, E., et al. Effect of dietary supplementation with very-long-chain n-3 fatty acids in patients with psoriasis. \*New England Journal of Medicine\*, Vol. 328, June 24, 1993, pp. 1812-16 \*Conclusion:\* Dietary supplementation with fish oils for 4 months produced no improvements in psoriasis patients. 2. Kojima, T., et al. Long-term administration of highly purified eicosapentaenoic acid provides improvement of psoriasis. \*Dermatologica\*, Vol. 182, No. 4, 1991, pp. 225-30 \*Conclusion:\* EPA proved beneficial when 9 psoriasis patients were treated with 3.6 g EPA for up to a year. \*OILOFPISCES.COM\* \*INTERNATIONAL HEALTH NEWS\* Copyright © 2006 by Hans R. Larsen Oilofpisces.com does not provide medical advice. Do not attempt self- diagnosis or self-medication based on our reports.

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