

**Cochrane Systematic Review of the Use of Fish Oils in Cancer Cachexia**  
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**PROBLEM:** Cancer cachexia is a debilitating weight loss syndrome characterised by disease-induced starvation, extreme weight loss and wasting (Giacosa, 1994). Past attempts to improve the patient's nutritional status have proved unsuccessful (Nixon, 1981; Ovesen, 1993). Recently some evidence from individual trials suggests that the polyunsaturated fatty acid; eicosapentaenoic acid (or EPA) found naturally in most fish oils may alleviate cachexia related symptoms in these patients. However, many of the trials cited have been small, using variable dosage rates and differing methodology.

**STRATEGY:** A systematic review with a meta-analysis was conducted for The Cochrane Library to synthesize evidence to determine the effectiveness and safety of EPA to treat cancer cachexia.

**EVIDENCE:** Using a comprehensive search strategy, electronic databases and hand searching was conducted to obtain all randomised controlled trials (RCTs) comparing oral EPA (in any form) to placebo or matched control. Studies were not excluded on the basis of language or publication status (published, unpublished, in press and in progress).

**PRACTICE CHANGE:** Two reviewers independently assessed the methodological quality of the studies using the validated quality assessment Oxford Scale (Jadad 1996).

**EVALUATION:** Primary Outcomes: Total body weight, lean body mass, survival. Secondary Outcomes: Quality of Life, Performance Status, Appetite, Compliance, Side effects and Adverse events.

**RESULTS:** Five trials met the inclusion criteria. There was insufficient data to establish whether oral EPA was better than placebo. Comparisons of EPA versus matched active control (without EPA) suggest that EPA is not more effective at relieving symptoms associated with the cachexia syndrome.

**RECOMMENDATIONS:** There is a need to conduct good quality large scale RCTs using EPA compared to placebo, with different cancer types and sufficient numbers. In particular there is a need to investigate the impact of EPA to improve survival.

## **BIBLIOGRAPHY**

Giacosa A, Frascio F, Sukkar SG, Roncella S. Food intake and body composition in cancer cachexia. *Nutrition* 1994;12(1(Supplement)):S20-3.

Jadad AR, Moore RA, Carroll D, Jenkinson C, Reynolds DJM, Gavaghan DJ, McQuay HJ. Assessing the quality of reporting of randomised clinical trials: Is blinding necessary? *Controlled Clinical Trials* 1996;17:1-12.

Nixon DW, Lawson DH, Kutner M, Ansley J, Schwarz M, Heymsfield S, Chawla R, Cartwright TH, Rudman D. Hyperalimentation of the cancer patient with protein-calorie under nutrition. *Cancer Research* 1981;41:2038-45.

Ovesen L, Allingstrup L, Hannibal J, Mortensen EL, Hansen OP. Effect of dietary counselling on food intake, body weight, response rate, survival and quality of life in cancer patients undergoing chemotherapy: A prospective randomised study. *Journal of Clinical Oncology* 1993;11:2043-9.