



Ômega 3 e degeneração macular – *The Journal of Nutrition* – Abril 2013

J Nutr. 2013 Apr;143(4):505-11.

## High Concentrations of Plasma n3 Fatty Acids Are Associated with Decreased Risk for Late Age-Related Macular Degeneration.

Merle BM *et al.*

### Abstract

High dietary intakes of n3 ( $\omega$ 3) polyunsaturated fatty acids (PUFA) and fish have been consistently associated with a decreased risk for age-related macular degeneration (AMD). We assessed the associations of late AMD with plasma n3 PUFA, a nutritional biomarker of n3 PUFA status. The Antioxydants Lipides Essentiels Nutrition et Maladies Occulaires (Alienor) Study is a prospective, population-based study on nutrition and age-related eye diseases performed in 963 residents of Bordeaux (France) aged  $\geq 73$  y. Participants had a first eye examination in 2006-2008 and were followed for 31 mo on average. Plasma fatty acids were measured by GC from fasting blood samples collected in 1999-2001. AMD was graded from non-mydratic color retinal photographs at all examinations and spectral domain optical coherence tomography at follow-up. **After adjustment for age, gender, smoking, education, physical activity, plasma HDL-cholesterol, plasma triglycerides, CFH Y402H, apoE4, and ARMS2 A69S polymorphisms, and follow-up time, high plasma total n3 PUFA was associated with a reduced risk for late AMD [OR = 0.62 for 1-SD increase (95% CI: 0.44-0.88); P = 0.008].** Associations were similar for plasma 18:3n3 [OR = 0.62 (95% CI: 0.43-0.88); P = 0.008] and n3 long-chain PUFA [OR = 0.65 (95% CI: 0.46-0.92); P = 0.01]. **This study gives further support to the potential role of n3 PUFAs in the prevention of late AMD and highlights the necessity of randomized clinical trials to determine more accurately the value of n3 PUFAs as a means of reducing AMD incidence.**