

Marine Fatty Acids in a Changing Canadian Arctic

Summary

Project Leader(s)

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To survive in the Arctic, Inuit had for centuries to rely on fish, mammals and some plants. They were able to derive most of their essential nutrients from the sea. Marine lipids were extremely important not only for energy but even more for their essential role in all human biological functions. Inuit are still one of a unique group of human beings which still rely on wild animals for their diet as the hunter gatherers did for thousands of years. Omega-3 fatty acids are one of the most important factors which could explain why Inuit are protected against chronic conditions such as cancer, diabetes and cardiac diseases and why they give birth to big babies. The Arctic environment is changing. A warming climate might be responsible for changes in micro algae lipid composition affecting the entire arctic food chain including humans. Contaminants are now reaching the North and have entered the food chain affecting Inuit children and adults. The extent to which those toxic effects are partially antagonized by omega-3 is a key issue. The society itself is changing. The modernization of the society now affects the diet. More sugar and a silent invasion of industrial-made fats (trans-fats) might change the health profile of Inuit soon. With a better understanding of all these questions, we will be able to orient public policies and thus prevent the adverse consequences of these changes.

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Other Refereed Contributions

B, Dewailly E, Château-Degat M-L, and Poirier, P., 2009, Relationship between obesity indices and heart rate variability among Inuit from Nunavik (Northern Quebec, Canada), Canadian cardiovascular congress. Edmonton, Alberta. Can J Cardiol 25 (Suppl B), 153, Published

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