



Promoting ALA as a source of omega-3

Thanks for your detailed CME article in the June 2006 issue of *Canadian Family Physician* about omega-3 fatty acids.¹ Indeed, there seems to be compelling evidence for their use, but I have some concerns that I hope you will address.

First, there are many vegetarians in Canada—and the world—who would like to have additional cardiovascular protection. Many are South Asian and could be genetically predisposed toward cardiovascular disease. In addition to other lifestyle and diet changes that they must pursue, it seems that omega-3 supplementation would be beneficial. Would you be able to comment about whether, or do you have evidence that, alpha-linolenic acid (ALA) can be promoted as a high-quality source of omega-3 fatty acids that is also effective for disease prevention? Are there any studies? Apparently ALA must be converted by our bodies into eicosapentaenoic acid and docosahexaenoic acid. Does this process occur efficiently?

There are also other reasons that ALA should be promoted as a source of omega-3. The environmental consequences of our current fish diet are incredible. The effect on Atlantic fisheries alone is a prime example of the devastation. Fish farms are also terrible for the environment. Imagine, if people increased their fish consumption by even a small percentage, what the increased cost to the planet would be. Changing the biosphere in this way is an anathema, and surely it will also affect human health someday. Some fish are less taxing on the environment to consume than others. If many people start switching to these fish, however, surely these fish will also be overfished and the same problems will occur.

The methylmercury content of fish is also of grave concern. Concentrations of polychlorinated biphenyls and other toxins and metals also build up in the fish. Pregnant women and young children in particular must be very cautious about the type, origin, and quantity of fish they consume. Environmental Defense has an excellent website: www.oceansalive.org. Two excellent webpages to which you can refer patients are <http://www.oceansalive.org/eat.cfm?subnav=healthalerts> and <http://www.oceansalive.org/eat.cfm?subnav=bestandworst>. Please have a look.

—Tushar Mehta, MD, CCFP
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by e-mail

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Response

I would like to thank Dr Mehta for his response and I will try to answer a few of his questions.

Vegans generally have diets lower in alpha-linolenic acid (ALA) (omega-3) than in linolenic acid (omega-6) and, thus, must wisely choose oils with higher ALA content. Alpha-linolenic acid is converted to eicosapentaenoic acid (EPA) (6% in some studies and 25% in others); however, conversion to docosahexaenoic acid (DHA) in the human body is poor. As well, the conversion is further limited (by as much as 40%) by excess omega-6 in the diet, which competes for the same enzyme system. Cardioprotective effects have been demonstrated for ALA; however, the results are not as robust as for EPA and DHA. Several articles might help you answer this question.¹⁻³

Regarding toxins in fish and fish oil (and the use of fish and fish oil in the perinatal period), I would refer you to another article.⁴

Industry and farming have seen the light, and new sources of DHA and EPA are on the horizon. Some of these are listed in Table 3 in my article.⁵ A new and exciting source of DHA and EPA is eggs from flax-fed chickens, which produce eggs with less cholesterol and more essential fatty acids. This concept began in Canada at the University of Alberta. This eventually will result in less stress on rapidly depleting fish stocks.

—Gerry Schwalfenberg, MD, CCFP
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by e-mail

Make your views known!

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Defining family medicine as a scientific discipline

Recently Dr Cal Gutkin pointed out the importance of having family medicine recognized as a specialty within the academic community.¹ Whether or not it is called a specialty, we need a clear definition of our role as a unique medical discipline.

If a field of knowledge is to be accepted as a scientific discipline, it must have a clear, concise definition that delineates its content, distinguishes it from other disciplines, and indicates its methodology (ie, identifies its scientific nature). I have prepared a definition of family medicine as a scientific discipline that should explain our uniqueness to the academic community. I welcome input from other family physicians.

Content

Family medicine has been described as continuing, comprehensive medical care of the patient in the context of the family and community. Continuing whole-patient care incorporates prevention, diagnosis, and treatment of undifferentiated illness; acute and chronic care; recognition of family and social needs; long-term support; and epidemiologic and environmental awareness. It includes the following:

- primary prevention—opportunities for preventive medicine and patient education;
- secondary prevention—treating undifferentiated or minor illnesses to prevent more serious disease and hospitalizations (this important function of family physicians is the most economically feasible aspect of medical practice);
- acute illness—most illnesses are treated at home and by family physicians;
- chronic and palliative care; and
- obstetric care.

Although family physicians might limit their practices, the principles of whole-patient care apply within those limits.

Caring for individuals through various illnesses and stages in the life cycle,

understanding family roles in illness, and using community resources makes family medicine unique.

Team medicine

Family physicians work as part of a health care team that includes medical specialists, nurses, social workers, and behavioural science professionals. They ensure appropriate referrals and coordinate patient care.

Socialization into family medicine differs from socialization into a specialty. The integrative role of family medicine is best taught by family physicians with experience in community medicine.

Methodology

Family medicine utilizes the methodology of specialty medicine in treatment of disease and the methodology of social science in its understanding of the individual, but it adds to these its own unique methodology—the integration of various specialized methods to provide a holistic perspective and appropriate care of patients within families and communities.

This integration is a scientific method that involves interviewing; accurate observation and physical examination; delineation of patterns of behaviour and of community epidemiology and ecology; explanations and hypotheses based on the observations; and testing by laboratory investigation, collation of facts, comparative analysis, and further observation. The integrative role of family medicine has sometimes been called the “art of family medicine.”

Research and practice management

Family physicians do community-oriented research. Training in research methods is included in their education.

Family physicians need to be good managers. They make economical use of medical resources. Their comprehensive knowledge of patients reduces the number of laboratory investigations, and prevention and early recognition of disease reduces suffering and medical costs.

Family medicine is a scientific discipline, separate from, but holding a legitimate position among, other medical disciplines. Its focus on the whole patient, its holistic perspective, its continuity of care, its family and community orientation, and its integrative methodology makes the field unique.

An expanded version of this definition is available from the author: Anna Mary Burditt, 141 Cameron St, Apt 605, Moncton, NB E1C 5Y7; telephone 506 854-5904; e-mail aburditt@nb.sympatico.ca or aburditt@dal.ca.

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