

DIETITIANS' NEWS

Cholesterol may not be the main suspect in heart disease

by Dr. Diane H. Morris

News from the International Society for the Study of Fatty Acids and Lipids (ISSFAL) 2006 Conference, Cairns, Australia, July 23-28, 2006...

Lowering blood cholesterol as a strategy for reducing coronary heart disease (CHD) risk is losing ground, according to leading CHD experts presenting at the ISSFAL 2006 Conference in Cairns, Australia. The latest thinking suggests omega-6 fats are leading suspects in CHD risk and lowering blood cholesterol levels is not an effective method of reducing CHD mortality or improving life expectancy in Western populations.

Dr. M. de Lorgeril of the School of Medicine at the Université J Fourier in Grenoble, France, whose work on the Lyon Diet Heart Study is widely recognized, observed that results of randomized trials show no effect of lowering blood cholesterol in women and the elderly or in the primary prevention of CHD. A recent meta-analysis of randomized trials reported a risk ratio of 1.02, which amounts to no effect. Dr. de Lorgeril commented that perhaps such a finding was not unexpected, as most CHD-related deaths in US adults – or about 75% of cardiac deaths in adults aged 35 to 55 years – occur as sudden cardiac deaths. The question, then, is whether blood cholesterol levels predict sudden cardiac death, and the answer appears to be, No. He proposed developing a new paradigm, one that would explain both the current worldwide CHD epidemic and outline preventive steps for the general population.

Dr. U. Ravnskov, an independent researcher in Lund, Sweden, reviewed the evidence linking dietary saturated fat, hypercholesterolemia and CHD. He indicated that secular trends of saturated fat consumption and CHD mortality show no consistent pattern, and the findings of cross-sectional, cohort and case-control studies are contradictory. In Dr. Ravnskov's opinion, a high saturated fat intake and hypercholesterolemia do not cause CHD. Bacteria and viruses may prove to be cofactors in the development of CHD, according to Dr. Ravnskov.

If saturated fat and high blood cholesterol are no longer considered major risk factors for CHD, have new risk factors emerged? Dr. F. De Meester with the Columbus Paradigm Institute in Belgium undertook a reanalysis of data from the famous 7-Country Study. He derived a mathematical equation to predict CHD risk in human populations over a 25-year period based on two parameters: total blood cholesterol and the proportion of omega-6 highly-unsaturated fatty acids (HUFA) in red blood cells. He found that Northern Europe and the United States had the highest CHD risk (80% and 75%, respectively), while the Mediterranean and Japan had the lowest risk (40% and 25%, respectively). Dr. Meester concluded that his reanalysis of the 7-Country Study data indirectly showed the proportion of omega-6 HUFA in blood vessels is the primary risk factor for CHD, with total blood cholesterol emerging as a secondary risk factor.