



Dietary guidelines for cancer prevention

To the Editor: In relation to a letter to the Editor by Dr Richard Smallwood (1), I would like to take the opportunity to clarify the position of the Australasian Nutrition Advisory Council (ANAC) about a recent communications program on diet and cancer risk. The ANAC comprises a group of Australian and New Zealand nutrition scientists and physicians, committed to scientifically-based, healthy eating, especially in relation to chronic non-communicable disease. Members have previously been, and are currently, extensively involved in the formulation of national and international food and health policy and recommendations.

The Council considered cancer risk, in general, relevant to Australia and New Zealand. The first consideration was that diet plays a key role in the development of many cancers. In fact it may be possible to reduce cancer risk by 30 to 40% through dietary change as part of a healthy lifestyle. Indeed, the recent Scandinavian twins study (2) has shown that environmental factors—more so than genetics—are the most important considerations in cancer risk.

We, like others, were particularly interested in the independent, comprehensive and current global perspective on reducing cancer risk through diet issued by the World Cancer Research Fund (WCRF) jointly with the American Institute for Cancer Research (AICR) and the added benefit of input from its Australian chair and colleague, Professor John Potter. The WCRF vision has been for its findings to be regionalised by food culture and health patterns, an aspiration consistent with the food-based dietary guideline directions, which World Health Organization and the Food and Agriculture Organization have established. Thus, the members of ANAC found this report a valuable reference point in their deliberations about advice for Australians and New Zealanders. Its view was that the National Health and Medical Research Council (NHMRC) in which members of ANAC are also involved, is not the only body to provide perspective on evidence let alone evidence-based nutrition. Moreover, the NH&MRC had so far focused on a particular cancer, colorectal cancer, in its communications strategy. The ANAC adopted a broader nutrition and cancer approach, kindred to that of the WCRF and AICR.

To reinterpret the WCRF report for Australia and New Zealand, and more specifically its recommendations, the Council took into account the standards of evidence, which were employed by the WCRF panel. ANAC considered the approach, analysis and evidence rating employed by the WCRF to be scientifically rigorous, but not always applicable to the local situation. The ANAC report, however, not only modifies the advice to suit the region, but also takes into account other important matters.

Since the issue of red meat intake seems to be contentious, it is worth looking at it more closely:

ANAC sought to encourage the creation of 'nutritional space' in the diet to facilitate greater inclusion of plant

foods, which are protective against cancer. We acknowledge the general nutritional value of red meat—for example, in the provision of iron and zinc—and consider that our recommendations successfully take this into account.

The NHMRC recommendations on core food groups (3) in Australia concluded that optimal meat consumption in Australia was 85 g per day, on average, for people 12 years of age or over (although higher for pregnant and lactating women). Also, the CSIRO 12345+ food and nutrition plan (4) suggests an intake of 60 to 100 g of meat per day for adults. It is noteworthy that our assessment in relation to cancers-at-large aligns well with these figures.

In relation to meat and colorectal cancer in particular, it is important to note that public health advice must acknowledge increasing evidence that genetic polymorphism (acetylator status in particular) (5) correlates with colorectal cancer risk from red meat consumption; and that in the Australian Polyp Prevention Project (6), although the combination of wheat bran and a low fat diet reduced large adenomatous polyp recurrence, the background meat consumption of those with polyps, who were the people studied, was higher than the NHMRC, CSIRO, WCRF and ANAC has concluded is required for an optimal diet. There is, therefore, a distinct possibility that their pre-morbid nutrition risk for colonic polyps was influenced by meat consumption, although it was possible to address their risk successfully by other nutritional means. This is an increasingly recognised and more integrated appreciation of how diet may contribute to health.

Finally, the issue of environmental sustainability and the relative environmental costs of plant and animal-derived food, especially meat, cannot be ignored in contemporary nutrition recommendations. These matters were reflected in the WCRF decisions and in ours.

We concur with the case for evidence-based public health recommendations made by Dr Smallwood in his letter. However, the questions addressed by ANAC were nutritionally broader than the NHMRC considerations of colorectal cancer, and which reported primarily on its general management. Moreover, since one of us was a principal investigator (Mark L Wahlqvist) in the Australian Polyp Prevention Project and two of us (Mark L Wahlqvist, Graeme P Young) were involved in the NHMRC working party on colorectal cancer, we had a useful understanding of the parallel activities. The ANAC recommendations are ones which look at the food-health relationship scientifically, comprehensively and pragmatically.

Mark Wahlqvist

Chair, Australasian Nutrition Advisory Council
Melbourne

References

1. Smallwood R. Dietary guidelines for cancer prevention [letter]. *Aust J Nutr Diet* 2000; 57:245.
 2. Lichtenstein P, Holm NV, Verkasalo PK, Iliadou A, Kaprio J, Koskenvuo M, et al. Environmental and heritable factors in the causation of cancer – analyses of cohorts of twins from Sweden, Denmark and Finland. *N Engl J Med* 2000; 343:78–85.
 3. National Health and Medical Research Council. The core food groups. The scientific basis for developing nutrition education tools. Canberra: Australian Government Publishing Service; 1995.
 4. CSIRO Human Nutrition and Anti Cancer Foundation of SA. The 12345+ Food and Nutrition Plan. Adelaide: CSIRO Human Nutrition and Anti-Cancer Foundation of SA; 1991.
 5. Roberts-Thomson IC, Ryan P, Khoo KK, Hart WJ, McMichael AJ, Butler RN. Diet, acetylator phenotype, and risk of colorectal neoplasia. *Lancet* 1996;347:1372–4.
 6. MacLennan R, Macrae F, Bain C, Battistutta D, Chapuis P, Gratten H, et al. The Australian polyp prevention project. Randomized trial of intake of fat, fiber, and betacarotene to prevent colorectal adenomas. *J Nat Cancer Inst* 1995;87:1760–6.
-

Copyright of Full Text rests with the original copyright owner and, except as permitted under the Copyright Act 1968, copying this copyright material is prohibited without the permission of the owner or its exclusive licensee or agent or by way of a licence from Copyright Agency Limited. For information about such licences contact Copyright Agency Limited on (02) 93947600 (ph) or (02) 93947601 (fax)