

29th June 2009

Response to the National Health and Medical Research Council Work Program
on the **Revision of the Dietary Guidelines**

*Prepared by the Secretariat of the Australian Division of World Action on Salt
and Health*

Dear Cathy,

Thanks for the opportunity to comment on this piece of work. The notes that follow represent the views of the Secretariat of the Australian Division of World Action on Salt and Health (AWASH). The Secretariat coordinates the day-to-day activities of AWASH and takes responsibility for all outputs in its name.

AWASH is a network of representatives from the medical profession, scientific community, food industries, consumer associations, education and health promotion bodies. All advocate a population-wide reduction in dietary salt consumption and the health benefits that would ensue. AWASH is hosted by the George Institute for International Health in Sydney (www.george.org.au).

AWASH presently uses the following NHMRC documents on a regular basis and would like to acknowledge the work done to put these together and keep them updated:

1. Dietary Guidelines for Children and Adolescents (2003)
2. Dietary Guidelines for Australian Adults (2003)
3. Dietary Guidelines for Older Australians (1999)

In regard to your current work program we highlight the following main points for your consideration:

1. Need to more systematically highlight the adverse effects of salt on human health throughout all the guidelines

The guideline specifically addressing salt does a good job of highlighting the health problems caused by salt. However, while many of the other guidelines make passing reference to the health issues caused by excess salt consumption it is missing for some and cursory for most. This is an important problem because excess salt is a very important factor in terms of total disease burden caused and some of the guidelines, in recommending a particular food for its merits in regard to some other nutrient, could easily lead you to miss the implications of the high salt content. Take cheese for

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example, highlighted as a good source of calcium in the relevant guideline. Most cheeses are very high in salt and recommending their consumption by children to achieve calcium targets would almost certainly result in a net health deficit as a consequence of the beneficial effects of the calcium being outweighed by the adverse effects of the sodium. Other sources of calcium low in sodium and saturated fat should be highlighted and more specific warnings against salty foods should be made within each specific guideline and in relation to each specific food identified as a good source of one nutrient or another.

It is not sufficient simply to argue that this information can be found in the salt guideline (or saturated fat guideline) because the guidelines will not be read as a group – they are simply far too voluminous. Each needs to be substantively self contained in regard to key determinants of ill health such as saturated fat and salt.

2. Need to systematically and accurately express the adverse effects of salt on blood pressure (not hypertension) and correspondingly to systematically and accurately express the adverse effects of blood pressure (not hypertension) on vascular disease

There is inconsistent and incorrect use of the terms hypertension and blood pressure throughout the guidelines that needs to be corrected and standardised. The point here is that it is blood pressure that should be referred to and not hypertension. The reason for this is that it is now widely recognised that hypertension is a term, defined by a completely arbitrary and continually shifting cut point, that substantively underestimates the blood-pressure-related disease burden and the fraction of vascular disease avertable by interventions.

A few key points are;

- Blood pressure starts to increase risk as soon as it rises above 110/60mmHg not at 140/90mmHg. Every mmHg increase incrementally increases risk
- Half of all blood pressure attributable disease burden occurs in people without hypertension (i.e. BP levels below 140/90mmHg). This is because the summed small increments in risk in large numbers (those without hypertension) equal the summed larger increases in risk in a smaller number of individuals (those with hypertension)
- Blood pressure lowering interventions reduce blood pressure and vascular risk independent of the starting blood pressure level (i.e. in hypertensive and non-hypertensive individuals alike)

These observations and a correct expression of the risks caused by elevated blood pressure (i.e. blood pressure above 110/90mmHg) are particularly important when considering dietary determinants of ill health because diet affects blood pressure levels across the full range of exposure levels and modifications to diet have the potential to improve health amongst almost everyone. This can have profound implications of the perceived value of the population-wide types of interventions that derive from a sound understanding of how dietary determinants of diseases impact upon disease outcomes.

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3. Need to acknowledge that the Recommended Daily Intake (RDI) ranges for salt are likely far in excess of the optimum daily intake. The RDI terminology has been replaced by AI and UL in the most recent documentation (although we are aware the dietary guidelines will be updated accordingly)

In addition, the dietary guideline documents should acknowledge that current intakes are likely far greater than recommended level, that these values are unlikely to reflect physiological needs, and are likely to be compatible with significant long-term health risks. It is imperative that Australia understands that these recommendations for daily salt intake are almost certainly far in excess of optimum consumption levels and need revising down.

In support of this recommendation we offer the observation that for most of human existence the usual diet (without added salt) contained between 1-2g of salt a day - this can be easily calculated from the known salt content of fresh fruits, vegetables and meats which are known to have comprised the majority of the human diet for the first few hundred thousand years of its existence. It was only when the Chinese discovered the preservative properties of salt about 6000 years ago that salt consumption increased to current levels (for most societies about 5-10x physiological requirements).

There are a wealth of physiological and epidemiological data that support the argument that the current levels are far too high. For example, the rennin angiotensin aldosterone system, which controls salt retention/excretion from the body switches from activation to suppression at daily salt intakes of between 1-2g/day providing a nice confirmation of the daily salt intake level for which humans are designed. Likewise there are many data indicating the likely adverse effects of salt consumption on blood pressure and vascular risk at levels below those proscribed by the UL.

4. Need to systematically incorporate information from the 2007 Australian Children's Nutrition and Physical Activity Survey into the guidelines

Data from the recent *2007 Australian National Children's Nutrition and Physical Activity Survey* can usefully inform the guidelines by highlighting the areas where action is particularly urgently required for children and might be employed to prioritise guidelines to users.

5. Guidelines should acknowledge that a high intake of salt in children is potentially setting them up with a preference for salty foods.

The *2007 Australian National Children's Nutrition and Physical Activity Survey* showed that boys were consuming up to >9g of salt daily, and girls were consuming up to >6g of salt daily; well above recommended levels. A high intake of salt in children is potentially setting them up with a preference for salty foods later in life, with long-term exposure to current salt intakes from an early age likely to contribute to increased blood pressure later in life. It is important to note that although Australian children are not dying from strokes, exposure to current high salt intakes is contributing to increased cardiovascular disease and associated risk factors later in life.

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6. Need to retain the good practical advice present in the existing guidelines and to update it wherever possible

The salt guidelines currently provide some very useful information on how to select low salt foods and we hope this continues to be reflected in the revised version. We would also urge the addition of further simple practical advice wherever possible.

7. Need to acknowledge the role of the food industry in reducing population salt intakes

More than 75% of the salt in Australian diets comes from processed foods. It would therefore be useful to acknowledge within the dietary guidelines the important role the food industry has in reducing population salt intake levels. Although a number of companies have made prior efforts to reduce the amount of sodium in their products, there is scope for further action as there are few manufactured foods that currently meet the criteria of "low sodium". This represents a barrier to using the current dietary guidelines as they advise to select 'low salt' foods when in fact the availability of such products to the Australian population is limited.

8. Need for consistency between applicable government documentation and reports

We note that while the *Nutrient Reference Values for Australia and New Zealand* are not presently under review, we often use this document in conjunction with the dietary guidelines. It is important that the guidelines and other documentation are consistent in their messages. For example, presently there is debate surrounding the estimation of population salt intakes in Australia. Food Standards Australia New Zealand (FSANZ) recently released a statement with results of dietary modelling suggesting that Australians are eating much lower amounts of salt than that reported in the NHMRC's NRV document. Given both FSANZ and NHMRC are government bodies, it would be appropriate to ensure that information provided by the parties documents are consistent.

We hope that you find these comments of value. Thanks once again for the opportunity to comment.

Kind regards



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On behalf of the Secretariat of the Australian Division of World Action on Salt and Health

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