



nznutrition
FOUNDATION

**Committee for Healthy Ageing
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Welcome to Issue 21 of our Bulletin, updating you on issues of importance or topical interest relating to nutrition and physical activity of older people. In this issue, we take a closer look at some of the myths and magic being promoted as enhancers of health and well-being, and some strategies to help decide whether you really need them.

As we age, we are bombarded with advertising for anti-ageing skin care, foods, and supplements. A Google search will give you lots of 'solutions' to the 'problems' of ageing, from promoting Superfoods and supplements to special dietary regimes. The internet is a great source of information, but the trick is being able to determine what is reputable. 'Scientific evidence' is the gold standard, but once again, it is very important to be able to recognise whether the so-called 'scientific evidence' is up-to-date, has been properly tested and validated, peer-reviewed and/or published in a reputable journal. 'Scientifically proven' is a common catch-cry, and we should consider this carefully.

To help people sort out the junk from honest nutrition, a recent Tufts University Nutrition magazine (Summer 2014) reported a list of '**10 Red Flags of Junk Science**' published by the Food and Nutrition Alliance – a partnership of several American professional scientific associations, including the Academy of Nutrition and Dietetics, the American College of Nutrition and the American Society for Nutrition.

Watch out for:

1. **Recommendations that promise a quick fix**, e.g. supplements or novel foods guaranteeing a quick weight loss. Watch out for medical jargon. Don't be won over by official sounding science terminology. Who sponsored the 'science'? Was it the manufacturer?
2. **Dire warnings of danger from a single product or regimen**, e.g. fat makes you fat; carbohydrates are toxic; sugar is white death. Eliminating complete food groups based on these dire warnings also means you are also eliminating other nutrients associated with that food group. A rational approach is strongly recommended
3. **Claims that sound too good to be true**. They usually are! The promise of rapid weight loss by following a specific and unusual regimen is fraught with disappointment.
4. **Simplistic conclusions drawn from a complex study**. People can think that at the end of a study, you have the truth; it's black or white, but what are more likely are nuanced shades of grey. Many studies

cannot be boiled down to a headline, so it is important to investigate more deeply. Results from studies using animals cannot reliably be extrapolated to humans – this is a common issue in junk science.

5. **Recommendations based on a single study.** A study published this time last year in the Annals of Internal Medicine failed to find a link between saturated fat intake and heart disease. Within two weeks, a leading columnist for the New York Times was declaring ‘Butter is back!’ The key message here is that this study needed to be looked at in context of the full body of evidence, rather than just looking at individual papers.
6. **Statements refuted by reputable scientific organisations.** In New Zealand we have the NZ Nutrition Foundation, Dietitians New Zealand, the Ministry of Health, The Heart Foundation, Cancer Society etc. Recent issues in New Zealand have been fluoridation of water supplies and the safety of the artificial sweetener, aspartame. Reputable organisations strongly support the fluoridation of water supplies, while the anti-fluoridation lobby bases its arguments on poor science; and aspartame has been proved internationally to be safe for use in usual quantities; but there are still many to be convinced that the science is honest.
7. **Lists of ‘good’ and ‘bad’ foods.** Foods are not independently good or bad. Diets with a set of rules such as the Paleo diet or a raw foods diet may appeal when people want a definitive direction on what or what not to eat, but these diets tend to be self-limiting. There are foods we should eat less often, and others we should include every day, and it can be difficult to figure out balance and moderation in our diets when there is so much food advertising on one hand and frightening obesity statistics on the other.
8. **Recommendations made to help sell a product.** Alarm bells should ring when you find that an article you are reading ends up with a sales pitch for a particular supplement, or if all the studies referenced were written by the author. Do you have a problem with a dermatologist promoting a specific brand of skin care? There is obviously bias at work here, and it’s important to be able to recognise the purpose of the argument. Registered health professionals are bound by codes of ethics not to advertise products for pecuniary gain, nor to promote one brand over another similar item, unless they can substantiate their reasoning. Advertising of supplements is rampant and focuses on the ‘worried well’, and the supplement industry is worth millions. But for the most part, well people who are eating a varied diet do not need additional supplements, and the money would be better spent on everyday normal foods.
9. **Recommendations based on studies not peer reviewed.** The basic nutrition messages are not very exciting – eat more vegetables and fruit and keep active. “Nutrition science is not a science of breakthroughs; its evolution, not revolution,” says Professor Jeanne Goldberg of Tufts University Friedman School’s Nutrition Communication Programme. Therefore it is important to ensure that the message being promoted does come from a peer-reviewed study that verifies that the research is well-conducted, the results credible and the findings significant.

10. **Recommendations from studies that ignore differences among individuals and groups.** Studies carried out on one group cannot be extrapolated to another, because the different life stages have different needs and problems. Extrapolating findings from healthy young males to a group of seniors is inappropriate. Similarly, extrapolating results from animal studies to human subjects is equally unsuitable. General recommendations developed from specific studies may be unsafe for some consumer groups.

In conclusion, most of us are aware of the New Zealand Food and Nutrition Guidelines for Healthy Eating. There are many ways in which we can interpret the guidelines to suit our individual culture and what we like, life stage and living situation. The Mediterranean Diet discussed in our last Bulletin (December 2014) is one way. David Katz (Nutrition News Editorial, December 2014) suggests the key is to eat moderately – to quote journalist and author Michael Pollan’s Food Rules - *‘a diet of food, not too much, mostly plants’*; exercise routinely; don’t smoke; get enough sleep; don’t stress too much; and enjoy your social connections. Enjoying a healthy diet and life style is not ‘Rocket Science’, is it? Keep it simple and don’t be taken in by ‘Junk Science’.

Extra reading: ‘I don’t know what to believe’

<http://www.senseaboutscience.org/data/files/resources/16/IDontKnowWhatToBelievereprint2008.pdf>