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Saturday, August 13, 2016

(Room 11)

14:30 - 15:00 Talking Nutrition - What to do in 5 Minutes

The New Eating and Activity Guidelines for New Zealand Adults

Is healthy eating controversial?

Learning Objectives

- ▶ By the end of the presentation the participants will have
 - ▶ Increased awareness of the evidence base behind the 2015 Eating and Activity Guidelines for New Zealand Adults
 - ▶ Improved understanding of why nutritional research is problematic
 - ▶ Broader appreciation of the difficulties faced by colleagues when non-evidenced nutritional advice is promoted
 - ▶ In the media
 - ▶ By “nutritional therapists” and celebrity authors
 - ▶ Through apparent support by colleagues in primary care

A quick clarification: what is the difference between a dietitian and a nutritionist

- ▶ “All dietitians are nutritionists, but not all nutritionists are dietitians”
- ▶ Dietitians are a legally protected profession.
 - ▶ In NZ, they either have a PGDip Dietetics obtained after a degree in nutrition or Since 2012, all dietetic students now study for a MDiet.
- ▶ There are registered nutritionists who have met the standard set by the Nutrition Society of NZ, which requires a minimum of an undergraduate degree in Human Nutrition and three years of professional work experience
- ▶ Other nutritionists can have a wide range of experience, and not all of their courses are recognised as evidence based or their practice based in robust clinical evidence. Increasingly “nutritional therapists” are seen in the private practice arena and will sell nutritionals, herbals and undertake tests such as kinesthesiology for “food allergies”

A definition

- ▶ Nutrition is an evidence based science. Nutrition Guidelines represent the best current recommendations in relation to optimal intake for a population to reduce the risk of disease and enhance health.

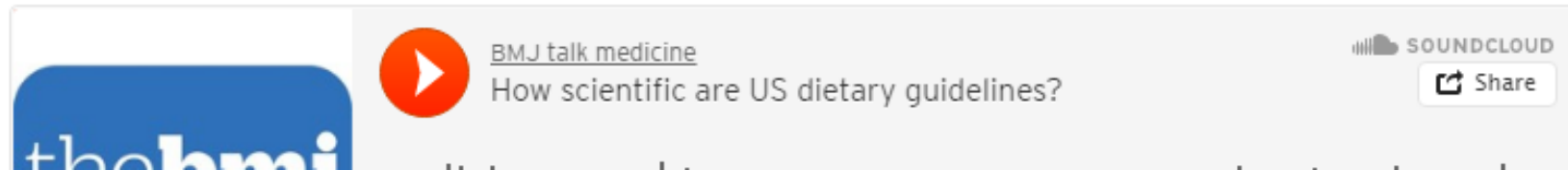
In September 2015 - we had this article appear

Feature
Nutrition


The scientific report guiding the US dietary guidelines: is it scientific?


BMJ 2015 ; 351 doi: <http://dx.doi.org/10.1136/bmj.h4962> (Published 23 September 2015)

Cite this as: *BMJ* 2015;351:h4962



thebmj

 [BMJ talk medicine](#)
How scientific are US dietary guidelines?

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Meanwhile in NZ...

**Response to Draft Dietary Guidelines
Submitted to the Ministry of Health
April 2014**

Professor Grant Schofield PhD

Professor of Public Health, Director Human Potential Centre, AUT University

Dr Gary Zinn PhD

NZ Registered Dietician. Senior lecturer Human Potential Centre, AUT University

Dr Nigel Harris PhD, BRmgmt

Senior lecturer, Human Potential Centre, AUT University

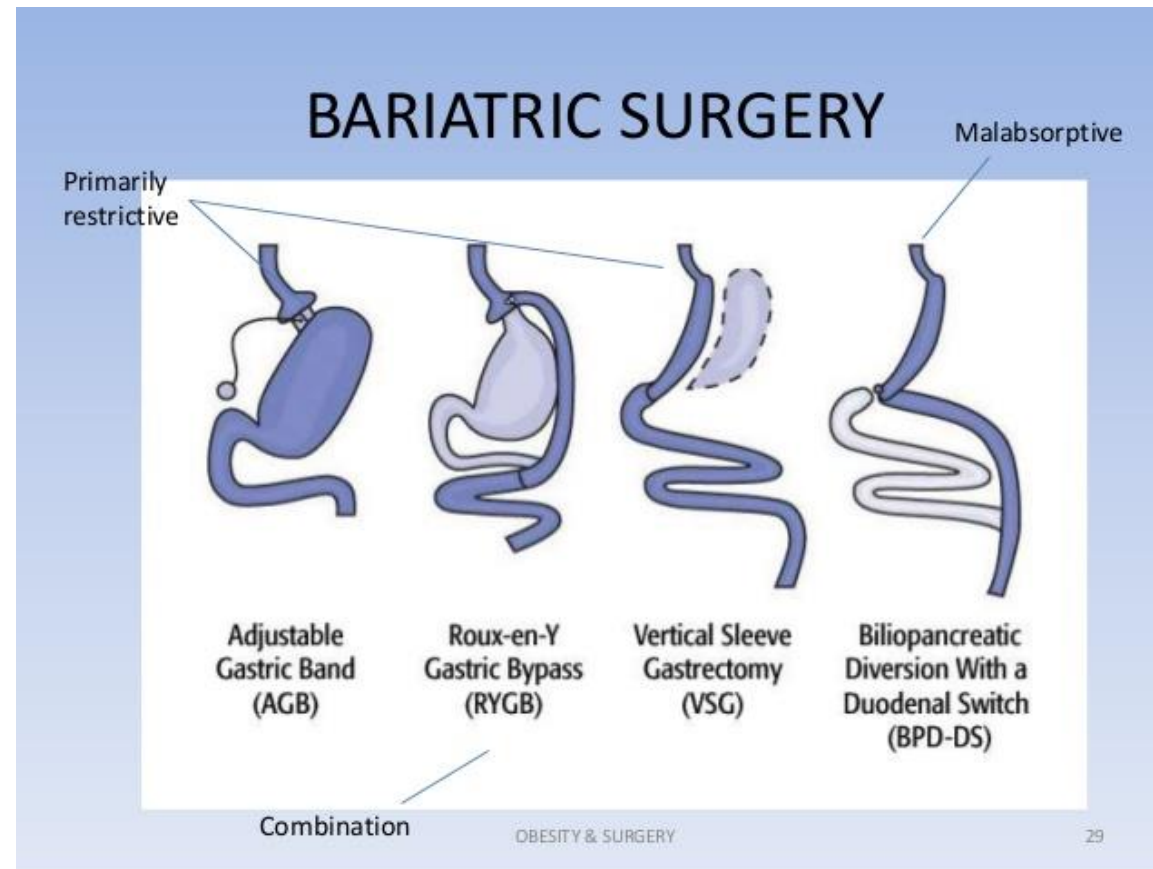
Dr Mikki Williden PhD

Registered Nutritionist. Senior lecturer Human Potential Centre. AUT University

Our own High-fat, Low-Carb proponents

The obesity (and Type 2 diabetes) epidemic means we are all keen to find solutions...

- ▶ Other than bariatric surgery for everyone!



Media

- ▶ The media reports nutrition in an unbalanced and ill educated manner
 - ▶ Headlines sell papers
OR
 - ▶ Act as clickbait

I Fooled Millions Into Thinking Chocolate Helps Weight Loss. Here's How.



John Bohannon

5/27/15 4:23pm - Filed to: DEBUNKERY ▾



1.2M



559



280

The public is confused

- ▶ Most health professionals have minimal training on nutrition
- ▶ Many professionals struggle to interpret the information presented in the media, but would also struggle to find enough hours in the day to check the research
- ▶ Nearly everyone struggles to understand the finer points of the methods sections
- ▶ And as for the statistics...

Nutrition is an evidence based science (1)

Meta-analysis of RCT data > RCT ≥
meta-analysis of cohort or case-
control studies > cohort or case-
control studies > population
observations > individual case
reports

Nutrition is an evidence based science (2)

- ▶ Most nutrition research is case-control or cohort studies
- ▶ Over time the number of case-control or cohort studies on similar conditions has increased, hence the burgeoning of nutritional meta-analysis in the last 15 years.
 - ▶ Many meta-analysis papers on nutrition topics are highly critical of the original studies, saying that the quality of the work is poor.
- ▶ The number of RCTs in nutrition involving food, not single nutrients are vanishingly small, because it is terribly hard to blind food!

Nutrition is an evidence based science (3)

- ▶ Many studies rely in Food-Frequency Questionnaires with smaller groups of food diaries to validate intake.
 - ▶ FFQ reporting is very heavily influenced by recent food behaviour, and is poor for historic eating patterns
 - ▶ Food diaries have a high respondent burden

Nutrition is an evidence based science (4)

- ▶ Intervention studies are either
 - ▶ Short duration with small groups of volunteers not necessarily representative of the population
 - ▶ Use proxy measures to estimate effect OR
 - ▶ Dependent on volunteers being compliant with the intervention advice (or not!) AND
 - ▶ Provide challenges to get well matched populations - variation comes from a wide range of factors.

How strong is the evidence for the Healthy Eating message?

- ▶ For most aspects the evidence falls into the moderate to strong categories
- ▶ In the case of moderate evidence, change is still possible, if unlikely
 - ▶ Eggs are a classic example of a change in advice based on improved evidence
 - ▶ 1999 - limit eggs to no more than 3 per week
 - ▶ 2012 - limit eggs to 6-7 per week for those with CVD risk, no limits for general population

Guidelines represent the best current recommendations

- ▶ Eggs is an example of a change in guideline advice
- ▶ Trans fats are an even better example...

How we all got caught out by *Trans*-fats (1)

- ▶ When the link between CVD and saturated fat was initially identified advice was given to have more unsaturated fats.
- ▶ Industry produced hydrogenated fats to meet the demand for more unsaturated fats.
- ▶ Science was not aware at the time that the unsaturated fats needed to be the *cis*-form not the *trans*-form to confer health benefits

How we all got caught out by *Trans*-fats (2)

- ▶ US hydrogenation techniques result in up to 30% trans fats
- ▶ Early NZ methods generally produced 8-10% trans fats
- ▶ Once trans fats were identified as a health issue, manufacturers changed their method and most hydrogenated fats in NZ contain less than 1% trans fats
- ▶ In the 2011 whole diet survey the typical intake is <3% and the majority of the source is from butter and ruminant animal fat (lard from beef and tallow)

...Optimal intake for the population to reduce the risk of disease and enhance health... (1)

- ▶ Guidelines are about population advice
- ▶ Within populations variation will mean that some individuals have detrimental health outcomes if they follow population advice.
 - ▶ Eat more fruit and vegetables
 - ▶ What about those who have poor tolerance of FODMAPs
 - ▶ Eat less fat
 - ▶ The frail elderly person with both cachexia and a history of wasting due to poor health may need to eat more fat to restore their weight to an appropriate level to avoid further deterioration in their health

...Optimal intake for the population to reduce the risk of disease and enhance health... (1)

▶ Eat more fruit and vegetables

- ▶ What about those who have poor tolerance of FODMAPs?
- ▶ What about those in renal failure with rising potassium levels?

▶ Eat less fat

- ▶ Including those with cystic fibrosis?
- ▶ The frail elderly person with a poor appetite who has lost 10% of their body weight after a recent hospital admission?

How does this all affect your daily practice?

- ▶ If you choose to follow an atypical diet - that is your decision based on your particular circumstances.
- ▶ If we are all compelled in our practicing codes to work to the evidence base, then giving non-evidence based dietary advice to your patients is not appropriate.

Saturated fat (1)

- ▶ The best evidence points to their being a link between increased cardiovascular morbidity even if there is no relationship with mortality
- ▶ Increasing evidence linking high saturated fat intake to increasing insulin resistance.

Saturated fat(2)

- ▶ If a patient asks about saturated fat, it is important to realise that more than 50% of the saturated fat in the typical NZ diet comes from
 - ▶ Animal fat (including fat from chicken)
 - ▶ Spreads and butter
 - ▶ Milk
 - ▶ Cheese
- ▶ Advice supports; lean meat, low fat dairy and mono- or poly-unsaturated fats

You have influence - far more than me!

- ▶ “My doctor says I can’t eat bananas or grapes with my diabetes”
- ▶ I can’t tell your patient you are wrong
- ▶ I have to repair the damage talking about portion size
- ▶ And I only have one to two visits to sort this out

Nutritional advice needs to be framed in Hauroa (1)

- ▶ Think about the likelihood of someone following your advice
 - ▶ Would a beef farmer be prepared to follow a vegan diet, even if it improved his risk factors for CVD and diabetes?
 - ▶ If your patient attempts a change and fails, how is that going to affect their relationship with you.
 - ▶ Can they afford what you are suggesting?
 - ▶ In a family setting is it going to be appropriate for everyone?

Nutritional advice needs to be framed in Hauora (2)

- ▶ If they do follow your advice is there any potential risk?
 - ▶ Psychologically, is there a risk of encouraging an eating disorder?
 - ▶ Is there a risk of nutritional deficiency from the advice given?
 - ▶ B12 and veganism
 - ▶ The vegan pregnancy

Confronting the big guns - when the media splashes around a set of recommendations that appear to be based in science.

- ▶ There was huge media coverage of the publication by the National Obesity Forum in May 2016 titled “Eat fat, cut the carbs and stop snacking to reverse obesity and type 2 diabetes”
- ▶ This supports a high fat, high saturated fat, low carbohydrate approach.
- ▶ Why was it published as a report rather than in a peer reviewed journal?
 - ▶ I know over ½ the authors - they are experienced and published academics.

NOF blames healthy eating advice for the obesity epidemic

- ▶ This is disingenuous to say the least
- ▶ Food habit surveys show repeatedly that almost no one follows “healthy eating advice”
- ▶ In NZ, we all eat too much fat (particularly saturated fat), sugar, and salt. We also eat too few vegetables and fruit, and don’t get enough fibre.
- ▶ By demonising healthy eating it fails to look at what the guidelines actually recommend...

NZ guidelines do not demonise fat...

NZ Guideline

- ▶ Choose and/or prepare foods and drinks with unsaturated fats (canola, olive, rice-bran, or vegetable oil or margarine) instead of saturated fats (butter, cream, lard, dripping, coconut oil)
- ▶ Enjoy a variety of foods including...nuts and seeds

NOF recommendations

- ▶ Eating fat does not make you fat

NZ guideline recognises there is still concern about saturated fat and CVD morbidity

NZ guideline

- ▶ As previously

NOF recommendation

- ▶ Saturated fat does not cause heart disease. Full fat dairy is likely protective.

Why the conflict? - Saturated fat

- ▶ NOF cites by de Sousa (2015) and Chowdry (2014) both of which support their hypothesis,
- ▶ Fails to cite the Cochrane review by Hooper (2015)
 - ▶ which found a small but significant relationship between saturated fat and CVD morbidity,
 - ▶ no link between saturated fat and either CVD mortality or all cause mortality

Why the conflict? - Full-fat dairy

- ▶ NOF bases their full fat dairy claim on the findings of one cohort study
- ▶ A recent meta-analysis of 31 cohort studies by Alexander *et al* (2016)
 - ▶ Non statistically significant inverse relationships between various dairy intake patterns and CVD
 - ▶ Once between group variation was controlled for there were no statistically significant relationships
 - ▶ Highlighted we need more work to understand which part of dairy is cardio protective

NZ guideline does not promote processed foods

NZ guideline

- ▶ Choose and/or prepare foods and drinks that are mostly whole and less processed.

NOF recommendation

- ▶ Processed foods labelled 'low fat', 'lite' 'low cholesterol' or 'proven to lower cholesterol' should be avoided

The NZ guideline states that Carbohydrates have their place - but should be minimally processed

NZ Guideline

- ▶ Enjoy a variety of nutritious foods every day including grain foods, mostly wholegrain and those naturally high in fibre
- ▶ Limit highly processed foods that are high in refined grains, saturated fat, sugar and salt
- ▶ Increase wholegrains and consume less processed foods

NOF recommendation

- ▶ Limit starchy and refined carbohydrates to prevent and reverse type 2 diabetes

NZ guidelines are not “pro-sugar”

NZ guidelines

- ▶ Limit drinks and foods with added sugar
- ▶ Limit highly processed foods that are high in refined grains, saturated fat, sugar and salt

NOF recommendation

- ▶ Optimum sugar consumption for health is zero

Free sugars - limit to 5% of daily energy intake

WHO definition

- ▶ "all monosaccharides and disaccharides added to foods by the manufacturer, cook, or consumer, plus **sugars** naturally present in honey, syrups, and fruit juices"

What this means

- ▶ Minimal intake of sugar sweetened drinks and foods
- ▶ Honey is no better for you
- ▶ Ban the juicer!

Omega 3 and 6 fats: this is an area of genuine disagreement

NZ Guideline

- ▶ No discussion is included on omega 3 and omega 6 oils in ratio

NOF recommendation

- ▶ Industrial vegetable oils should be avoided

Omega 3 to 6 ratios: what is the issue?

- ▶ With the increased use of vegetable oils we have a far higher intake of omega 6 unsaturated oils than we ever had in our evolution
- ▶ There is increasing evidence that there may be health problems associated with a high intake of Omega-6 fatty acids, and a reduced intake of Omega 3 fatty acids
 - ▶ Omega 6 fat may be pro-inflammatory
- ▶ Dietary guidelines should perhaps emphasise the sources of Omega 3 fats (fish, flax oil/flax seed, chia, olive oil, dark green leafy vegetables. Also grass fed ruminants and free range eggs.

We don't recommend counting calories

NZ guideline

- ▶ Make good choices in what you eat and drink and being physically active are also important to achieve and maintain a healthy body weight

NOF recommendation

- ▶ Stop counting calories

NZ guidelines promote exercise, but not as a panacea against a bad diet

NZ guidelines

- ▶ Sit less move more! Break up long periods of sitting.
- ▶ Do at least 2 ½ hours of moderate or 1 ¼ hours of vigorous physical activity spread throughout the week
- ▶ For extra benefits double the activity
- ▶ Do muscle strengthening activities on at least two days each week.
- ▶ Doing some physical activity is better than doing none

NOF recommendation

- ▶ You can not outrun a bad diet

We do not mention eating frequency
in guidelines...perhaps we should

NOF

recommendations

NZ Guideline

- ▶ Not mentioned
- ▶ However, low glycaemic load meals (wholegrain and real food) will result in longer satiety

- ▶ Snacking will make you fat (Grandma was right)

Something I really support - nutrition education for all health professionals

NOF

NZ guideline

- ▶ Not mentioned
- ▶ However, we are trying our best!

recommendation

- ▶ Evidence based nutrition should be incorporated into the education curriculum for all healthcare professionals

Summary

- ▶ Because of the nature of nutrition research we will never be 100% certain that our advice is the correct for all people all of the time
- ▶ Weighing up the evidence takes time, or if you don't have the time be careful who you ask
- ▶ We ask you to understand you have influence with your patients, so help us make them aware of what is most likely going to work
- ▶ And refer them if you really think there is something that needs sorting out!