

On the 4th July 2019, the ABC published the following news item as its top news story.

*World Health Organisation's recommendations on saturated fat are out of date, expert team says.*<sup>1</sup>

It was based on an article published in THE BMJ the previous day, written by Arne Astrup and 17 colleagues, *WHO draft guidelines on dietary saturated and trans fatty acids: Time for a new approach?*<sup>2</sup>

I made a complaint to the ABC regarding the accuracy of both the original BMJ article, and ABC's article. I sent the journalist an 87 page A5 document, outlining many errors.

I received an email from the journalist on 24th September stating that, "I very much appreciate the time you've taken to get in touch and share your research with me, however, it's not something I can act on at the moment."

As a result I wrote a formal complaint to the ABC's Investigation Unit, and was told it NOT the responsibility of ABC's journalists to fact check journal articles, that are printed in reputable journals such as The BMJ. I can appreciate that journalists may not have the expertise to fact check article such as this. That is why I provided an 87 page document examining the errors and a 97 minute video with some of the highlights.

Whilst the links to the dairy and beef industries are noted in THE BMJ article, it is not mentioned in the ABC's article. It is not responsible to leave the information published in ABC's article to be uncorrected. The majority of readers will only see the statement,

***A global team of researchers has taken aim at World Health Organisation draft guidelines that recommend people reduce their saturated fat intake.***

The picture shows burger, chips, eggs, and baked beans.

The readers' conclusion – eating bacon and eggs is no longer considered to be unsafe.

People do not need to read any further. They have already received the information that the wish to know.

The ABC's editorial guidelines state, "reasonable efforts must be made to ensure that material facts are accurate and presented in context." and "factual content must not be presented in a way that will materially mislead the audience."

At the end of Astrup’s article, the evidence for including eggs, chocolate, cheese, and meat is listed, which matches the needs of their corporate sponsors.

Dr James Muecke, the Australian of the Year in 2020, refers to this article to justify his high-fat, low-carbohydrate, high-animal based diet to minimise diabetes, its associated blindness (diabetic retinopathy) and diabetic neuropathy. Peripheral diabetic neuropathy is nerve damage of the limbs that is caused by diabetes. 50% of adults with type 2 diabetes have peripheral neuropathy. It can result in pain, numbness and an increase in sensitivity. Diabetes account for more than 80% of amputations. <sup>3</sup>

Dr Muecke’s high-fat diet causes diabetes – it does not prevent it.

Professor Robert Lustig, a paediatric endocrinologist at the University of California and author of *Fat Chance: Beating the Odds against Sugar, Processed Food, Obesity, and Disease* <sup>4</sup> who advocates that a high consumption of sugar is responsible for most of the diseases of affluence of modern civilisation. He states that,

“There is no foodstuff on this planet that have both fat and carbohydrate at the same time. It is one or the other because that is evolution – that is nature – that is what God did.”

My book – and video – documents how the food industry has manipulated the media and researchers to ensure that profits become before public health.

I have taken the material to the Newcastle Herald, our local members of parliament, The Australian newspaper and Sydney Morning Herald but no-one is interested. The *Australian Medical Association* and the *Medical Journal of Australia* have indicated that it is not within their scope to bring this to the attention of medical doctors or the Australian public.

More detailed information can be obtained from the 17 page eBooklet [Fat, Carbohydrate and Type 2 Diabetes](#).

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Dr James Muecke is the Australian of the Year in 2020 which was awarded for his work as an eye-surgeon and his work in preventing blindness. He is trying to convince Australians to eat more meat, eggs and dairy. Australia is ranked number 2 in meat consumption, just behind United States but in front of Argentina, Uruguay, Brazil and New Zealand.

Muecke has declared that we need to “Declare war on type 2 diabetes and cut back on sugar” in order to reduce the incidence of blindness.

He believes that it is the introduction of sugary drinks and highly processed foods are the cause of diabetes – not a high-fat, high-protein diet as shown by numerous papers dating back to 1927. [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [11](#) [12](#) [13](#) [14](#) [15](#) [16](#)

According to the Australian Bureau of Statistics, the level of sugar consumption is decreasing. In 1995, the proportion of energy from free sugars was 12.5% compared with 10.9% in 2011-12 (10.9%), a decrease of 13%. This is still higher than the WHO recommendation of less than 10% of energy from free sugars. <sup>17</sup> Ideally, the consumption of free sugars should be close to zero.

Dr Muecke was interviewed by Keith Wheeler for a FarmOnline National article. Wheeler summed up his article with,

Dr Muecke faces a challenge to defeat type 2 diabetes, but if people eat more meat and dairy it would be a good start. And dark chocolate. That’s the sort of report I like!

Muecke refers to a 2019 article in the *Annals of Internal Medicine*, *Unprocessed Red Meat and Processed Meat Consumption: Dietary Guideline Recommendations From the Nutritional Recommendations (NutriRECS) Consortium* to support his beliefs.

Walter Willett, the Harvard professor of epidemiology and nutrition, called the study

the most egregious abuse of data I've ever seen.<sup>18</sup>

The publications produced by the NutriRECS organisation are concerned with proving that red meat consumption is healthy – or at least not detrimental.

Bradley Johnston is the director and co-founder of NutriRECS, and is an Associate Professor with the Departments of Nutrition & Statistics, Texas A&M University (formerly Agricultural and Mechanical College).

Grant money came from AgriLife Research, a part of Texas A&M University that is partially funded by the beef industry. According to Patrick Stover, vice-chancellor and dean of AgriLife, the Texas research agency received more than \$2 million in funding from the beef industry in 2019 alone.

Stover was also a co-author on the *Annals* study with Johnston, along with an international team of researchers. Stover has since hired Johnston as an associate professor of community health and epidemiology at Texas A&M.<sup>19</sup>

Dr Muecke is providing advice that people dearly wish to believe but is detrimental.

## American College of Cardiology Review

The American College of Cardiology and the American Heart Association produced a 25 page review that examined the medical literature with the goal of developing “clinical practice guidelines for assessment of cardiovascular risk, lifestyle modifications to reduce cardiovascular risk, management of blood cholesterol in adults, and management of overweight and obesity in adults”.<sup>20</sup>

This review examined three critical questions (CQs)

### Critical Question 1 (CQ1)

Among adults, what is the effect of dietary patterns and/or macronutrient composition on CVD risk factors, when compared with no treatment or with other types of interventions?

### Critical Question 2 (CQ2)

Among adults, what is the effect of dietary intake of sodium and potassium on CVD risk factors and outcomes, when compared with no treatment or with other types of interventions?

### Critical Question 3 (CQ3)

Among adults, what is the effect of physical activity on BP and lipids when compared with no treatment or with other types of interventions?

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In the FarmOnline article, Muecke states,

Journal of the American College of Cardiology review of literature which found there was no evidence that cutting saturated fats from your diet would help you live longer.

This is interesting as the review did not examine longevity or mortality. The review specifically states that,

because of resource limitations, CVD morbidity and mortality outcomes were not included in the evidence review for this [the CQ1] question.

Muecke's statement does not appear anywhere in the 25 page review.

## Women's Health Initiative

The Women's Health Initiative was included in Johnston's review and given a high grading as it is a randomised intervention trial.<sup>21 22</sup>

This study is frequently mentioned as a low-fat diet study that fails to improve health indicators.

The Dietary Modification trial of the Women's Health Initiative evaluated the effect of a "low-fat" and high-fruit, vegetable-and-grain diet on the prevention of breast and colorectal cancers, and coronary heart disease in post-menopausal women. The participants followed either their usual eating pattern or a "low-fat" dietary pattern. 48,835 postmenopausal women in the United States participated in the trial with 40% assigned to the intervention group and the control group was the remaining 60%.

The women self-reported their diets. According to the study, the intervention consisted of:

Intensive behavior modification in group and individual sessions designed to reduce total fat intake to 20% of calories and increase intakes of vegetables/ fruits to 5 servings/ d and grains to at least 6 servings/d. The comparison group received diet-related education materials.

This was achieved by holding 18 group sessions in the first year and quarterly maintenance sessions afterwards for the intervention group. It could be disputed that this constitutes intensive behaviour modification, especially given the fact that behaviour did not change.

The widely-reported conclusion from this study informed readers that:

Over a mean of 8.1 years, a dietary intervention that reduced total fat intake and increased intakes of vegetables, fruits, and grains did not significantly reduce the risk of CHD, stroke, or CVD in postmenopausal women and achieved only modest effects on CVD risk.

The effectiveness of a diet is much more than sum of the macronutrients. The participants failed to reach even the modest goals of the vital components of fruit, vegetables, whole-grains and dietary fibre. **The average whole-grain, fruit and vegetable consumption was decreased.**

One of the conclusions of this large study was, "that more focused diet and lifestyle interventions may be needed to improve risk factors and reduce CVD risk." Given that there was so little change in the diet of the intervention group over the six years then it is not surprising that the results did not show a reduction in the risk of heart disease and stroke.

There are also ethical issues with this kind of study. For any lifestyle change, participants and their families need to be committed to the concept. Randomly assigning participants to a particular group is not conducive to a positive outcome. Do we really need a random trial that lasts for a number of years, wait for the results to be analysed and published to find out that what we eat is really important?

The participants in the control group and intervention group were overweight and unhealthy at the start of the trial. (Control: average weight 76.8kg, BMI 29.1; Intervention: average weight 76.7kg, BMI 29.1)

Both groups were still overweight and unhealthy by the end of the trial. (Control: average weight 76.1 kg, BMI 29.2; Intervention: average weight 75.7kg, BMI 29.0)

The reason there was no change in the outcomes for this long-term, expensive trial was that the participants did not make changes. If you wish something to change then you need to change something.

### Teicholz's 2015 BMJ Article

On 23 September, 2015, another BMJ article was published by Nina Teicholz, *The scientific report guiding the US dietary guidelines: Is it scientific?*<sup>23</sup>

It asks the question,

So why does the expert advice underpinning US government dietary guidelines not take account of all the relevant scientific evidence?

The author is wanting information on the benefits of saturated fats, animal products and low-carbohydrate diets to be included in the guidelines.

The next day, The BMJ issues this press release stating,

The expert report underpinning the latest dietary guidelines for Americans fails to reflect much relevant scientific literature in its reviews of crucial topics and therefore risks giving a misleading picture, an investigation by The BMJ has found.

The press release failed to mention that nature of the BMJ investigation, the name of the expert report or the name of the committee that produced the report. The expert report is the *Scientific Report of the 2015 Dietary Guidelines Advisory Committee*.<sup>24</sup>

The “BMJ investigation” was an article written by Nina Teicholz in response to the above report. **It was not a BMJ investigation.** Why is The BMJ press release stating that they, The BMJ, performed an investigation when it is clear that this is not the case?

At the end of the article in The BMJ, written by Teicholz, it clearly states:

This article was fully funded with a grant from the Laura and John Arnold Foundation ([www.arnoldfoundation.org](http://www.arnoldfoundation.org)). The analysis was conducted independently, and the report reflects the views of the author and not necessarily those of the foundation.

I sent an email was sent to The BMJ and the following response on 29 June 2017 at 20:04.

The editorial team have advised that this article was fully funded with a grant from the Laura and John Arnold Foundation. Therefore, BMJ would have used the grant to cover all expenses for this publication.

The Laura and John Arnold Foundation provided the seed funding for The Nutritional Science Initiative organisation, NuSI, that was founded by Gary Taubes, and Peter Attia to promote low-carbohydrate nutritional science.<sup>25</sup>

## Nutrition and Randomised Clinical Trials

Whilst medical researchers love to quote that randomised clinical trials represent a “gold standard” of research, it is very difficult to perform randomised clinical trials with nutrition.

With drug trials where only when variable, the drug, is being tested it is easy to design a study where neither the participants or the researchers are aware of which individual received the treatment.

A number of researchers studied the relationship of saturated fat to serum cholesterol during the 1950s including Ancel Keys replaced saturated fats in the diet with polyunsaturated fats. All other components of the diet remained the same and the total fat content of the diet did not change.<sup>26 27</sup>

For the duration of the studies the participants consumed a liquid concoction with different types of lipids. When the unsaturated fats, such as corn or safflower oil, were replaced by the saturated fats of butter, lard, or coconut oil, the serum cholesterol rose. The serum cholesterol fell when the polyunsaturated fats were reintroduced.

The experiments were repeated, and whilst there was variability with the amount of change for different individuals, the results were consistent for each individual. The changes occurred rapidly within one or two weeks.

Both the American College of Cardiology and the Johnston review give higher credence to randomised studies irrespective of their quality. Observational studies are given less credence or ignored.

All studies are comparing the results from two or more cohorts. The careful choice of the control group can completely skew results.

Low-carbohydrate or ketogenic dietary trials almost invariably are comparing overweight or obese participants, often on an energy-restricted, improbable diets before announcing that weight loss or diabetic control has been improved on their low-carbohydrate diets when compared with their version of a "low-fat" diet. The comparison "low-fat" diet is invariably an unhealthy diet with a fat intake of about 30%. This is NOT a low-fat diet. The average American, Canadian and US diets have a fat intake of 33%.<sup>28 29 30 31 32 33</sup>

## Conflicting Evidence

There are thousands of studies that refute the basic premises of Johnston's and Astrup's papers. Three studies are examined below.

## Causes of Type 2 Diabetes

If you type "intramyocellular lipids diabetes" into a Google Scholar search, you will receive hundreds of search results. This refers to fats inside muscle cells. The type of fat is irrelevant.

34 35 36 37 38

Normally, insulin attaches to protein receptors on the cell's surface and signals the cell membrane to allow glucose to enter. If there is an accumulation of fat in the cell, it interferes with insulin's signalling process and glucose cannot enter the cell. Fat can accumulate inside muscle cells even in slim people. The real cause of type 2 diabetes is not an excess of sugar or carbohydrates. It is an accumulation of fat inside the cells that interferes with the muscle cells' ability to respond to insulin. The muscle cells are unable to access glucose, which is required for energy production.

As the papers above indicate, these changes can happen overnight.

Advice to limit carbohydrates actually magnifies the problem as it results in an increase of fat and protein in the diet.

## Sweeney Studies from 1927

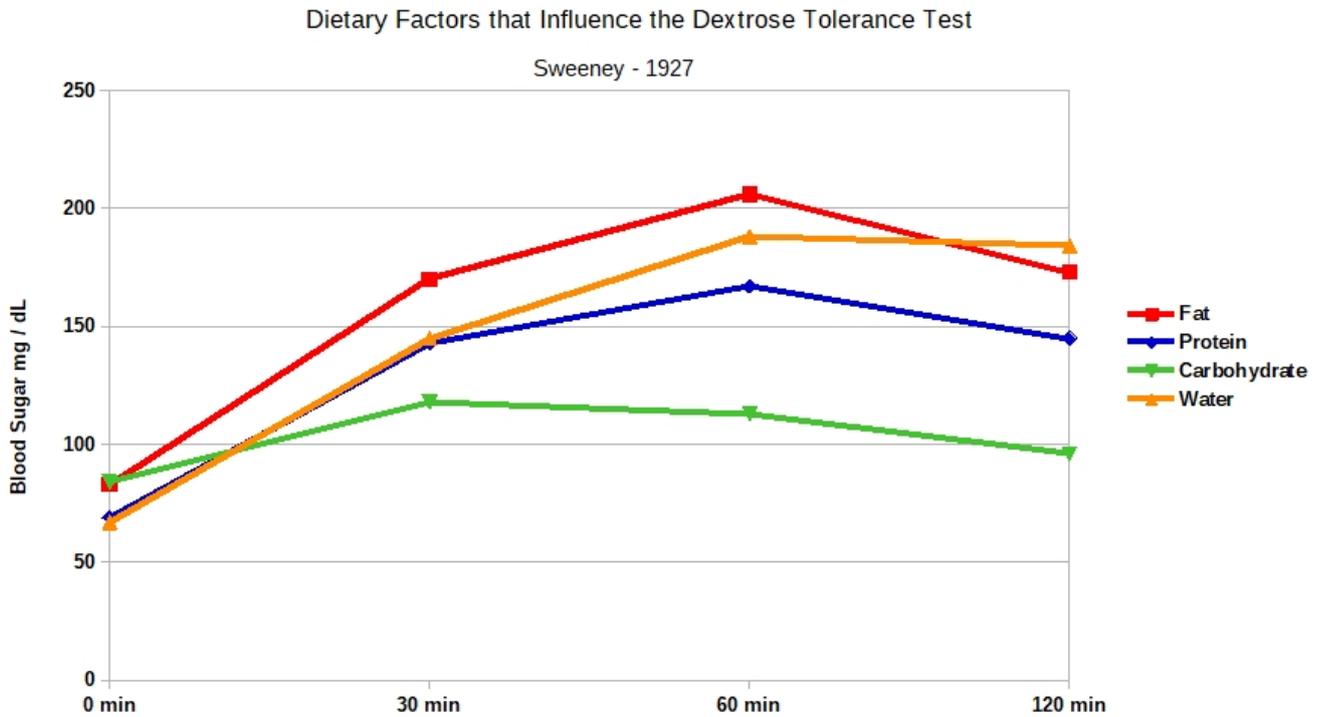
The result of Type 2 diabetes is that the body does not process sugar effectively, which results in high levels of glucose in the blood. High levels of glucose over an extended period of time places you at risk for many serious health problems. The usual medical advice is to prescribe a diet with very little sugar and limit starch in the diet since glucose is formed as a result of starch being digested. This does seem to be the logical solution to having too much glucose in the blood.

It has been known since at least 1927 that high fat diets increase insulin resistance. Healthy, young medical students were divided into four dietary groups: <sup>39 40</sup>

- high-carbohydrate diet consisting of sugar, candy, syrup, baked potatoes, bananas, and oatmeal, rice, and white bread
- high-fat diet consisting of olive oil, butter, mayonnaise, egg-yolks and cream
- high-protein diet consisting of lean meat, lean fish, and egg-whites
- the fourth group was placed on a fasting regime

The students were fed their diets for two days and a glucose tolerance test was performed on the morning of the third day. The students who consumed the high-carbohydrate showed an increase in tolerance for dextrose; those on the high-protein diet showed a mild inability to remove sugar from the blood; those on the high-fat and starvation diets showed a significant decrease in their tolerance for sugar. After only two days on their experimental diets, the

only group showing a normal, healthy response to the glucose tolerance test was the high-carbohydrate group.



### Seventh-day Adventist Studies

A strong commitment to health has been a part of Adventist’s tradition since its founding in the 1840s. There has been three large Adventist cohort studies in the United States and Canada. These studies have generated hundreds of papers, which give a valuable insight to diet and the implication for our health.

As the diet becomes more vegetarian, so the risk of diabetes is reduced. Note the comparison is with non-vegetarian Seventh-day Adventists who are much healthier than the average American. Also, adjustments are made for data that is not necessarily independent.

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Category	%	BMI	Type 2 diabetes Odds ratio (*)
<b>Vegan</b> No red meat, fish, poultry, dairy, eggs	4.2	23.6	<b>0.32</b>
<b>Lacto-ovo vegetarians</b> Vegan with eggs and milk	31.6	25.7	<b>0.43</b>
<b>Pesco-vegetarians</b> Vegan with fish, milk and eggs	11.4	26.3	<b>0.56</b>
<b>Semi-vegetarians</b> Red meat, poultry less than once a week plus fish, milk, and eggs	6.1	27.3	<b>0.69</b>
<b>Non-vegetarians</b> Red meat, poultry more than once a week plus fish, milk, and eggs	46.9	28.8	<b>1</b>

**(\*) After adjustment for age, sex, ethnicity, education, income, physical activity, television watching, sleep habits, alcohol use and BMI.**

The reference group of non-vegetarians is much healthier than the control groups from the Women's Health Initiative and the ketogenic diet studies. Alcohol use, smoking and meat consumption is much lower than in Seventh-day Adventist populations than the standard American population.

The adjustments for BMI, physical activity, television watching are not independent variables so the results can be skewed unfavourably away from the vegetarian diets.

Much publicity is given to the longevity of the people of Japan and Okinawa (an archipelago that stretches from southern Japan to Taiwan). However, it is vegetarian Californian Seventh-day Adventists that have the longest lifespan and the highest levels of health on the planet.

Vegetarian Californian Adventists have a higher life expectancy at the age of 30 years than other white Californians by 9.5 years in men and 6.1 years in women, giving them the highest life expectancy of any formally described population.<sup>42</sup>

Note that Californians are much healthier than the average American being in the top five states for longevity with an average life expectancy of 5-6 years greater than the Mississippi states.

### Taiwanese Buddhist Study

A Taiwanese Buddhist study with 4,384 participants compared type 2 diabetes outcomes for lacto-ovo-vegetarians compared with those who consumed meat. The meat-eating group ate only a very small amount of meat.<sup>43</sup>

- intake for females: 50% consumed less than 10 g/day; 25% consumed less than 2 g/day.
- Meat intake for males: 50% consumed less than 20 g/day; 25% consumed less than 7 g/day.
- Fish and meat intake for females: 50% consumed less than 17 g/day; 25% consumed less than 3 g/day.
- Fish and meat intake for males: 50% consumed less than 37 g/day; 25% consumed less than 11 g/day.

There were insufficient numbers to divide the vegetarians into subgroups (pesco, lacto-ovo, vegan). There were 69 vegans (no animal products) and there were no cases of diabetes within this group.

One Big Mac, with 2 meat patties, contains 90 g of meat—so the participants were consuming only a very small amount of meat. Three garden peas weigh a gram.

That minute amount of meat increased the risk of diabetes 4 times for females and 2 times for males.

Category	Pre-menopausal women		Menopausal women		Men	
	Vegetarian	Omnivore	Vegetarian	Omnivore	Vegetarian	Omnivore
Diabetes %	0.6	2.3	2.8	10	4.3	8.1
Impaired Fasting Glucose %	5.8	9.0	14	18	12	17

The control group is much healthier than the control groups from the Women’s Health Initiative and the ketogenic diet studies.

### Egg Consumption and Diabetes in Jiangsu Province

To assess the impact of egg consumption on type 2 diabetes in China, a survey was performed among 2849 adults in Jiangsu Province, China. Jiangsu is a coastal Chinese province north of Shanghai. <sup>44</sup>

Dietary information was obtained by a validated food frequency questionnaire and 3 day

weighed food records. Note that this survey did not rely on dietary recall.

Egg consumption was significantly and positively associated with diabetes risk. Below is the risk of diabetes according to egg consumption.

<b>Egg Consumption</b>	<b>Women Odds Ratio</b>	<b>Men Odds Ratio</b>
Less than 2 eggs per week	1.00	1.00
2-6 eggs per week	1.67	2.03
1 egg per day or greater	3.22	2.44

Plasma triglyceride and total cholesterol levels were also significantly higher in women who consumed more than 2 eggs/week than those who consumed eggs less often.

The conclusion of this paper is,

Considering the high percentage of participants who consumed more than 1 egg/d in this population and the substantially increasing burden of diabetes in China and worldwide, a clearer message on egg consumption and diabetes risk is needed.

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There are many doctors (including my doctor) and health professionals who believe that a low-carbohydrate diet, one rich in fat and protein diet is beneficial. These diets are rich in animal-sourced products.

In 2018, 36% of Australians aged 18 and over are overweight (BMI of 25 to up to 30) and 31% of the population are obese (BMI 30 or more).<sup>45</sup>

34% of adult Australians have hypertension (greater than 140/90 or taking medication).<sup>46</sup>

According to the Framingham Risk Assessment calculator, a systolic value of less than 120 mmHg is ideal.

5.3% of Australian adults aged 18 and over had type 2 diabetes in 2017-18. Diabetes is the fastest growing chronic condition in Australia, increasing at a faster rate than other chronic diseases such as heart disease and cancer.<sup>47</sup>

Between 25% and 35% of Australians diabetics report some form of diabetic retinopathy.<sup>48</sup>

Something is seriously wrong and the situation is becoming worse.

The views of Muecke and Astrup and the reporting in the popular press are detrimental and are contributing to the problem.

## Footnotes

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