

Dr Joe Kosterich

Education and Health Standing Committee
Legislative Assembly Committee Office
4 Harvest Terrace
West Perth WA 6005

Re Inquiry into the role of diet in type 2 diabetes prevention and management

It is well recognised that rates of obesity and type two diabetes have increased significantly since the early 1980's. There has been much hand wringing about this from public health. Despite this, rates have continued to increase. The costs to the community and the individual from type two diabetes is massive.

The major change that occurred at the same time as the increase in rates of obesity and type two diabetes was the introduction of low fat dietary guidelines. Food sales figures in the USA, Australia and other countries show that sales of red meat, dairy and full fat products fell whilst sales of grain based foods and low fat foods increased.

The population has followed the advice of public health – to their detriment. It has been demonstrated that there was [no scientific basis](#) for the introduction of low fat dietary guidelines. It has been shown conclusively in the PURE study that consumption of fats is not the problem but that consumption of carbohydrates is.

When low fat food is produced something has to replace the fat and generally that is sugar. Low fat yoghurt for example will have a higher sugar content than full fat. A fat content also helps with satiety so people tend to eat less.

It is important to understand that jargon is a problem. When referring to sugar it can be assumed that it only pertains to sweet foods or sugar cane. This is not the case. Many foods containing refined carbohydrate are not sweet. Corn flakes have as much sugar as Coco Pops. Most grain based foods regardless of taste have a high sugar content. Yet we are told to eat more grains despite there being no evidence to support any health benefits from doing so.

Many foods get a healthy tick or star rating for having a low fat content regardless of the carbohydrate or sugar content.

Basic physiology is critical here. Consumption of carbohydrates triggers release of insulin from the pancreas to remove glucose from the blood stream. It does this by converting the glucose into fat for storage. Thus, under the influence of insulin, the body is in fat storage mode. If one eats a high carbohydrate diet and has many small meals, as is often advised by dieticians and others under the dietary guidelines, the body is in constant fat storage mode.

Not surprisingly it is difficult to lose weight in these circumstances. It is also very frustrating for citizens who in good faith have followed flawed advice offered by big public health. It has also been frustrating for those eating low fat foods to find that these foods get converted into fat in the body.

The food industry is blamed for much of this. Low fat foods did not exist in society before the public health establishment started pushing the eat low fat message. Industry responded to public demand driven by health messages.

We now see the public moving to eat full fats foods, not because of public health admitting its error but because of their own experience. Diets such as the ketogenic and Paleo diet have gained in popularity as people have found that they work!

In these days of internet and social media these success stories spread more rapidly than in the past.

Fat consumption does not trigger insulin release to any significant extent. Furthermore, fat consumption increases satiety and thus people feel full sooner and eat less.

Sadly, the reaction of officialdom to the weight of evidence has not been to embrace it but to conduct witch hunts against health professionals who have sought to advise patients to reduce sugar intake. The case of Dr Gary Fettke in Tasmania is instructive. He was banned by the medical board from talking to his patients about diet on the back of anonymous complaints from dieticians. Leaked emails show that this went to the top of the Dieticians Association of Australia.

Interestingly in the same week as the findings against Dr Fettke were overturned and he was issued with an apology, the DAA quietly announced it was ending a corporate partnership program. In this it promised increased sales to partners. The Heart Foundation has a similar program which is continuing.

The [PURE study](#) has demonstrated that carbohydrates NOT saturated fats are the problem in our diets.

Previous work has demonstrated that the cause of type two diabetes is increased sugar intake, independent of weight! The study controlled for obesity, age, calorie intake and a host of other socio-demographic factors. The study tracked rates of diabetes in 175 countries over a decade.

Most importantly it satisfied the criteria of Austin Bradford-Hill, a statistician who 50 years ago set out what was required before “linkage” could be reasonably called “causation”.

It was shown that on;

- i) Dose - the more sugar available the greater the prevalence of diabetes.
- ii) Duration - if sugar is available for longer there is increased diabetes.
- iii) Direction - diabetes decreases with less sugar and increases with more.
- iv) Precedence - diabetics don't start consuming more sugar; people consuming more sugar are more likely to get diabetes.

There is a clear correlation between sugar consumption and diabetes.

Rob Lustig (one of the study authors) told the [New York Times](#) "you could not enact a real world study that would be more conclusive than this one." The level of causation established is comparable to that of smoking and lung cancer.

So what does this mean?

It means that most of what we have been told about fats, weight, obesity and diet is wrong. The problem is not fats in the diet but excess sugar. The proliferation of high sugar low fat foods has contributed to the increase in obesity and diabetes we have seen over the last 35 years.

Recently [Tom Watson](#), deputy leader of the UK Labour party lost 44kg and reversed his type two diabetes by ignoring official advice. He went on a ketogenic type of diet. There is [ample work](#) that has been done to show that this approach works and is perfectly safe.

I am happy to provide numerous papers if you would like.

I have had patients with diabetes who have reduced their carbohydrate intake, and improved their diabetes control who were told to increase their carbohydrate intake!. Those with type one diabetes have found their diabetes control far better when they reduced carbohydrate intake.

To summarise then since the introduction of low fat dietary guidelines which have led to a change in the eating patterns of Australians we have seen a sharp increase in obesity and type two diabetes. These two things are connected. Eating more carbohydrate leads to more frequent insulin release putting the body into fat storage mode. Eventually the body's cells tire and become insulin resistant and in turn this precedes the onset of type two diabetes.

Our dietary guidelines have been based on "[sloppy science](#)". Yet rather than admit error, public health has blamed the population for following its advice. It has blamed the food industry for providing the low fat foods that it told people to eat. Worst of all it has attacked those who have sought to help citizens. It has pilloried those who offer low carbohydrate diets.

The public managed much better before being given erroneous advice. Food should be enjoyed and taste is part of this. Satiety is also important and high carb/low fat foods generally lack taste and do not provide satiety.

The only mystery is why it is taking so long for the proverbial penny to drop.

The solution is remarkably simple. Current dietary guidelines need to be abolished. Food tick and star systems need to be abolished. The simple message is to eat “real food”. Food which IS an ingredient rather than HAS ingredients. Food which if not eaten or frozen would need to be thrown out in a week or so. Food which till recently was either growing somewhere or moving around.

Ideally groups like the Dietician’s Association and Heart Foundation need to offer public apologies.

Attached are some references and I can provide more on request.

I would be delighted to appear in person.

Yours Sincerely

Dr Joe Kosterich M.B.B.S.