

Notes on Diabetes Group meeting 4th May 2023

Present were Brad, Jeremy, and Anne. Apologies were received from Brian, John, Alicia, Brenda, Penny and Marion.

With so few participants Brad dispensed with the summary of the previous meeting. Jeremy agreed to make his presentation since it was to be a practice run for a future Think Healthy Me webinar. His presentation was titled "Understanding how type 2 diabetes became an epidemic (and what to do about it)". Jeremy told us about Ancel Keys who was on the cover of Time magazine in 1961. He was very influential and convinced America of his diet-heart hypothesis claiming that *reducing dietary saturated fat reduces serum cholesterol, thereby reducing the risk of cardiovascular disease*. This hypothesis became the foundation of the dietary guidelines in the United States and later in the UK. But what if he was wrong? He became a committee member of American Heart Association and influenced Senator George McGovern with the Dietary Goals report for USA in 1977. This played into the hands of the food companies who increased their production of processed food made with refined grains, sugar and seed oils, all of which were cheap to produce and could be made to have a long shelf life. In the 1800s very little of what was eaten came from processed food, and this was mainly from sugar. By 2009 63% of what Americans ate came from ultra-processed food, and the percentage in the UK was 57% in 2018.

Jeremy moved on to ask if we eat according to the guidelines. When you analyse in terms of carbs, fat and protein what we eat and compare it with what the guidelines recommend, we see that here in UK we are very good at following the guidelines. Or maybe that is just a coincidence and we buy and eat what is on the shelves and provided by the food companies who were heavily involved in the Eatwell Guide. He compared sugar consumption from 1822 to 2016. Current sugar intake is far above the long-term historical human norm. Intake peaked in 1999 and has fallen since then, but also the human requirement for sugar is zero. Next, he brought us figures on the consumption of fats. The increase in plant-based oils has been the most dramatic change in human dietary patterns ever - from almost nothing to over 700 kilo calories per person per day or about 20 to 25% of all calories consumed in a western diet. Looking at changes to food consumption in the UK, from 1980 to 2000 we ate less dairy, less veg, less red meat, but double the amount of vegetable oils, also more fruit and more chicken.

Deaths in the US from heart disease increased 4-fold from 1920 to the peak in the 1980s. In the late 1800s it was considered a rare disease. UK followed a similar pattern. There is a good correlation between smoking rates and heart disease. Smoking rates peaked in the 1960s. As rates of heart disease were increasing, the consumption of animal-based fats was falling. There is an inverse correlation between heart disease and consumption of animal fats.

Jeremy moved on to diabetes. The rates of diabetes in UK have climbed steadily in the last 25 years, and there are now over 5 million with diabetes. Worldwide diabetes caused 6.7 million deaths in 2021. Adult obesity rates in UK have risen from 1 in 50 in 1960 to almost 1 in 3 today, with almost two thirds being classed as overweight. There is certainly a strong correlation between increases in diabetes and obesity and increases in the consumption of seed oils, sugars and processed food which would include refined grains. And the demonization of saturated fat from animal sources and the low-fat push was naturally followed by increases in these processed plant foods. A review entitled "United States Dietary Trends Since 1800: Lack of Association Between Saturated Fatty Acid Consumption and Non-communicable Diseases" concluded that "Processed and ultra-processed foods dramatically increased over the past two centuries, especially sugar, white flour, white rice, vegetable oils, and ready-to-eat meals. These changes paralleled the rising incidence of non-communicable diseases, while animal fat consumption was inversely correlated". Dr Andrew Jenkinson, a Bariatric Surgeon from University College London Hospital says "There is a fundamental misunderstanding of the causes and treatment of obesity and it is because of this flawed thinking by many experts and advisers that the obesity crisis has become worse."

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Next Jeremy asked "What is diabetes?". Diabetes.co.uk says that type 2 diabetes occurs when the hormone insulin is not used effectively by the cells in your body. Insulin is needed for cells to take in glucose (sugar) from the bloodstream and convert it into energy. Elevated blood glucose is the diagnosis for type 2, but let's also have a look at insulin.

When blood glucose rises, one of the many of the functions of insulin is to push blood glucose into cells. Excessive blood glucose results in excessive levels of insulin and over time this can result in cells becoming resistant to the action of insulin, or insulin resistance. This in turn means that the body produces even more insulin and self-perpetuating cycle develops. This can happen in the muscle, fat, liver, and other organs, even the brain. With type 2 diabetes, there is always some insulin production, though it may decrease and more medications, including insulin are prescribed in the attempt to hammer down the glucose levels. But higher insulin levels are problematic in themselves, leading to greater risk of obesity, heart disease, and other complications. Dr Ben Bikman explains that main cause of insulin resistance is elevated insulin but there are other factors which cause insulin resistance, including inflammation, stress, age, genetics, smoking and pollution. Another factor is excessive linoleic acid consumption. This is a type of fat predominant in seed oils, which we know as vegetable oils, such as sunflower or rapeseed oil, and consumption has significantly increased over the last half century.

Some statistics concerning diabetes. Because of diabetes every week in UK on average 184 patients will have a foot or part of their foot amputated, and there are 770 strokes, 2300 heart attacks and cases of heart failure, the leading cause of death with those with type 2. Diabetes also leads to kidney failure, dementia and depression, and two thirds will suffer from retinal damage in their eyes, with some losing their sight. It is costing the country almost 30 billion pounds every year, and that is increasing.

Reversing diabetes. Dr David Unwin has reversed type 2 diabetes in over 100 of his patients at his GP practice. Also, he has reported remission in 93% of those who had pre-diabetes. So, catching it early and acting early is much more effective. He has successfully incorporated lower carbohydrate dietary advice for patients with type 2 and prediabetes.

To conclude: Let's go back just over 100 years to have a look at a Diabetic cookbook from 1917. The advice then was to eat dairy, meat, poultry, fish and eggs, and avoid sugar, flour and starches.

Why was this ignored?

Why did processed food take over our diet?

Why are modern chronic diseases at epidemic levels and still increasing?

I'll leave you to answer those questions for yourselves.

Next meeting 1st June at 5pm.

Website – <http://diabetesthanet.uk>

Facebook - <https://www.facebook.com/groups/1370586729749214>

Nextdoor - <https://nextdoor.co.uk/events/17592186413264/>

YouTube - <https://www.youtube.com/channel/UCNq8iXg0KgxiGyeEmmz39fQ>