

# Can we reverse Type 2 Diabetes?

Yes we can !

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At the age of 55 years Dr Unwin had completed 28 years caring for patients in his General Practice. During that time he had noticed an 8 fold increase in the incidence of Type 2 diabetes. Patients developing the condition were becoming younger. The associated obesity was causing major mobility problems. Something terrible had happened and nothing appeared to be being done for these younger patients. He needed to do something or retire. He made a decision to respond to the situation which had unfolded and he was supported fully in this change of direction by his wife, a clinical psychologist. Their story is inspiring as measured by his passionate style of presentation and the response of the 80 strong audience participants.

It all starts with psychology and giving patients HOPE. There is a need for the patient to identify his/her ambitions sometimes as simple as the desire to wear nice clothes and look attractive and then for the practice team to support him/her in achieving this goal. Patient self-help groups were established and found to be helpful. Patients are not interested in HbA1c monitoring but avoiding medication appeals to them. Losing weight is only half a goal. Radical changes were made in the management of his diabetic patients by introducing a LowCarb diet. In 2013 his GP Practice in Norwood near Southport ranked bottom for good blood glucose control in league tables comparing his surgery to the Clinical Commissioning Group, NHS England and the UK. By 2017 the surgery was top. It became the 'cheapest' practice in the CCG and able to return £57,000 saved on the reduction in prescribing of AntiDiabetic Drugs last year. The results using the criteria for Type 2 Diabetes remission were immediate, spectacular and have been sustained for the past 5 years. If his practice could manage this situation others could be persuaded to follow suit and are now doing so assisted by the educational arm of the RCGPs.

Dr Unwin reminded his audience of the physiology involved. Insulin causes glucose to be stored in cells e.g. as triglycerides in the liver. Type 2 diabetes results from the accumulation of fat in the liver and pancreas. Liver fat is linked to Insulin resistance and pancreatic fat inhibits Beta cell function. A reduction in carbohydrate intake reduces the amount of circulating insulin and leads to reduced liver fat and a reduction in insulin resistance. A reduction in pancreatic fat leads to increased insulin secretion. The combined effect is to cause a REMISSION (in Dr Unwin's opinion a better word than reversal) of Type 2 diabetes. The condition then stops becoming a chronic deteriorating condition and the GP prescribing can stop.

There is a clear need to explain this physiology to the patient in a way which can be understood. A patients' attention is drawn to the importance of nutrition and in particular the role of sugars and starches. In Type 2 Diabetes sugar becomes 'a sort of metabolic poison'. Tables are shared with patients to show them where sugar in the diet comes from and the equivalence of various foods with a high glycaemic index to spoonfuls of sugar. The first priority is to cut out table sugar.

Over time it became clear that the diet would influence not only the reduction in HbA1c but also reductions in the patient's weight and blood pressure and also gammaGT, triglyceride and cholesterol levels contributing to the prevention of cardiovascular disease.

The LowCarb Programme has drawn much interest both from the public and the profession. Dr Unwin's expertise is recognised by his contribution to and role on several national bodies with an interest in diabetes and an award as NHS Innovator of the year 2016. This address was a clarion call to action.

The President of the Leicester Medical Society, Professor Mayur Lakhani, offered a vote of thanks following a lively question and answer session and a short presentation by Dr Kesar Sadhra, a GP from Slough who endorsed the work of Dr Unwin.