

Changing your diet may decrease your dementia risk

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Insight from Patrick Holford, founder of the Food for the Brain Foundation

With FMs and service provider partners being tasked to offer more healthy menus within their facilities, the comments below are designed to assist with the formulation of effective catering strategies.

These days more and more of us are putting a lot of thought into our diets. The focus is often on weight and body shape, but we should also be considering what is best for our brains. New evidence shows that brain cells clog up if they are presented with too much energy from sugar (glucose or fructose) that is derived from carbs rather than from fats. Type 2 diabetes, a consequence of too much sugar, almost doubles the risk for dementia.

Carbohydrates are rapidly digested down to glucose which is an important brain fuel in the right quantity. However, eating too much refined 'white' carbohydrate on a regular basis, from sugar to white bread, rice or pasta messes up the glucose supply to the brain by promoting insulin resistance. Insulin is the hormone that helps carry glucose into the brain and, with too much sugar and carbs in the diet, insulin receptors shut down, effectively going 'deaf'. This is called insulin resistance and leads to a paradoxical increase in blood glucose, but poor supply into the brain.

However, the brain can derive a lot of its energy needs from ketones which come from fats. Very high fat 'ketogenic' diets, which are low in carbs and contain almost no sugar, substantially reduce dementia risk.

The brain also depends on omega-3 fats for signalling systems which enable us to think. Increased intake of omega-3, either from diet or supplements, or having a higher omega-3 blood level, cuts the risk for dementia by a fifth (20%), according to a study of over 100,000 people just published in the American

Journal of Clinical Nutrition.^[iii] This means eating oily fish such as salmon, mackerel, sardines, and kippers or supplementing with fish oils. A UK Biobank study shows those supplementing fish oils have 12% less dementia.^[iv]

Alan's story

Alan was diagnosed with Alzheimer's and vascular dementia, and in December 2022, he completed—with the support of his wife—the on-line Cognitive Function Test and dementia risk questionnaire at foodforthebrain.org. This test shows you what diet and lifestyle factors are driving your risk for dementia.

Following this, Alan lowered his intake of sugar and carbohydrates, started taking C8 oil (this is the name of the fat that the liver makes ketones from most readily) every day and went 'ketogenic' five days a month, avoiding all carbs and eating high fat. He also increased exercise, became more mentally and socially active and supplemented omega-3 fish oils alongside B vitamins.

By March 2023, three months later, he had made vast improvements. "I've got my husband back from dementia," reported his wife, Dot. "His brain is working again. We can have normal conversations."

Ketotherapeutics

Professor Stephen Cunnane, who heads the Brain Research Team at Sherbrooke University in Quebec, Canada, is an expert in the new science of 'ketotherapeutics'. His research is focused on how both ketogenic high fat diets, but also giving C8 oil or supplementing ketones themselves, can help prevent Alzheimer's, slow down cognitive decline, improve mood and lessen anxiety.

Many people report feeling calmer, less anxious and less depressed on ketogenic diets. A keto diet also definitely helps neurological conditions such as drug-resistant epilepsy. It may also help in Parkinson's. In fact, high fat keto diets have been used successfully for over a hundred years to help children with epilepsy.

Professor Cunnane presented an online webinar on 'Ketones - a key brain fuel during aging' for the charity foodforthebrain.org on 6 June 2023. This webinar explained how the brain uses ketones for fuel, how to implement a keto diet and the state of the science for keto diets and supplements for reducing cognitive decline and their potential as a treatment option to help prevent or arrest dementia, as well as other neurological diseases such as Parkinson's and epilepsy.

"We are assessing whether combining exercise and a ketogenic supplement will help people with either dementia or Parkinson's," says Professor Cunnane.