

Role of NNS in glycemic control

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Although non-nutritional sweeteners (NNS) have been thoroughly tested prior to marketing in people with type 2 diabetes and have shown no effects on glycemic control there is a limited data in non-diabetic people. There is some epidemiological data suggesting NNS may be associated with type 2 DM, CVD, stroke and increased mortality but it is far from uniform and convincing and there is almost certainly an element of reverse confounding. There is data from small intervention studies that NNS may alter glucose handling via effects on the microbiome. We have performed a randomised crossover study comparing the effects of two weeks of aspartame and acesulphame K on glucose levels as measured by continuous glucose monitoring over this time and an assessment of insulin sensitivity autocorrect tab as measured by an OGTT at the beginning and the end of each experimental phase. After a 2 week washout phase participants were tested during a 2 week consumption of soda water. So far 17 people have completed the study and NNS have shown no effects on glycemic control or insulin sensitivity in either lean or overweight and obese subjects. The study will continue until 40 people have completed the intervention.