Fizzy water might aid weight loss by boosting glucose uptake and metabolism

But effects so small, it can't be relied on alone to shed the pounds, warns author
Regular physical activity + healthy diet still key to slimming down and staying that way

Fizzy water might aid weight loss by boosting blood glucose uptake and metabolism—the rate at which the body uses and converts energy—but the effects are so small, drinking it can't be relied on alone to shed the pounds, concludes a brief analysis published in the open access journal ***BMJ Nutrition Prevention & Health.***

There are no quick fixes to slimming down and keeping off the weight, says the author: regular physical activity and a healthy balanced diet are still essential, added to which the long term effects of drinking large amounts of carbonated water aren't known.

Because fizzy water is 'filling,' thereby helping to curb hunger pangs, and reportedly speeds up digestion and lowers blood glucose levels, it has been heralded as a potential slimming aid.

But it's not clear exactly how carbonated water might reduce blood glucose or how this might contribute to weight management, points out the author.

To try and find out, the author compared the process of drinking fizzy water with haemodialysis, whereby blood is filtered (dialysed) to remove waste and excess water when the kidneys no longer can, drawing on previously published research.

Haemodialysis turns blood alkaline, primarily producing carbon dioxide (CO_2). Similarly, the CO_2 of fizzy water is absorbed through the stomach lining and is rapidly converted to bicarbonate (HCO3) in red blood cells. This alkalinisation process speeds up glucose absorption and use by activating key enzymes in red blood cells, explains the author.

Clinical observations during haemodialysis show that blood glucose levels fall as blood passes through the dialyser, despite a higher glucose level in the dialysate solution to start with, he adds.

While these findings suggest that fizzy water may indirectly promote weight loss by enhancing the uptake and use of blood glucose, context is key, emphasises the author.

During a typical 4 hour haemodialysis session around 48000 ml of blood flows through the dialyser, resulting in around 9.5 g of glucose being used during the session, he explains.

"Given this minimal glucose reduction, the impact of CO_2 in carbonated water is not a standalone solution for weight loss. A balanced diet and regular physical activity remain crucial components of sustainable weight management," he insists.

“Also, drinking carbonated water can have some effects on the digestive system, particularly for individuals with sensitive stomachs or pre-existing gastrointestinal conditions. The primary concerns include bloating, gas and, in some cases, exacerbation of certain symptoms associated with digestive disorders, such as irritable bowel syndrome or gastro-oesophageal reflux disease,” he points out.

“Moderation is key to avoiding discomfort while still enjoying the possible metabolic benefits of carbonated water,” he says.

Commenting on the analysis, Professor Sumantra Ray, Executive Director, NNEdPro Global Institute for Food, Nutrition and Health, which co-owns the journal, said: “While there is a hypothetical link between carbonated water and glucose metabolism this has yet to be tested in well designed human intervention studies.

“And although this study adds to the evidence base, it doesn’t provide sufficient evidence on which to make recommendations for the preventive or therapeutic use of carbonated water. Additionally, any potential benefits must be weighed up against the potential harms of carbonated drinks which may contain sodium, glucose, or other additives.”