## Sugar is worse than salt for pushing up blood pressure, new research has found

Medical experts have hit back at new claims that sugar is worse for you than salt

By Nicola Harley

11:30PM GMT 10 Dec 2014

Sugar is worse than salt for pushing up blood pressure, research has suggested.

Added sugars are more likely to have a greater role than salt in causing high blood pressure and heart disease, according to the study published on Thursday in the online journal Open Heart

However, academics have claimed the research has been "over exaggerated" and is not based on any new evidence.

The authors of the study say the benefits of cutting salt intake to lower high blood pressure "are debatable" and claim dietary guidelines should be focused more on reducing sugar and less on salt.

They claim people who have a daily intake of more than 74 grams of high fructose corn syrup, a sweetener used in processed foods such as fruit-flavoured and fizzy drinks, have a 30 per cent higher risk of high blood pressure.

Of particular concern, they say, is that UK and US teens may be consuming added sugars up to 16 times the recommended limit.

Cardiovascular research scientist Dr James DiNicolantonio, at the Saint Luke's Mid America Heart Institute, has published the paper, with Dr Sean C Lucan, of the Albert Einstein College of Medicine in New York.

In their paper, entitled The wrong white crystals: not salt but sugar as aetiological in hypertension and cardiometabolic disease, they say: "Sugar may be much more meaningfully related to blood pressure than sodium, as suggested by a greater magnitude of effect with dietary manipulation.

"Compelling evidence from basic science, population studies, and clinical trials implicates sugars, and particularly the monosaccharide fructose, as playing a major role in the development of hypertension [high blood pressure].

"Moreover, evidence suggests that sugars in general, and fructose in particular, may contribute to overall cardiovascular risk through a variety of mechanisms."

They claim that worldwide sugar-sweetened drinks consumption has been implicated in 180,000 deaths a year.

"Just as most dietary sodium does not come from the salt shaker, most dietary sugar does not come from the sugar bowl; reducing consumption of added sugars by limiting processed foods containing it, made by corporations, would be a good place to start," they add.

"The evidence is clear that even moderate doses of added sugar for short durations may cause substantial harm."

However, Professor of Emeritus of Nutrition and Dietetics at King's College London, Tom Sanders said there is "no evidence" to support their findings.

"In my opinion the effects of added sugars are exaggerated in this article," he said.

"Cutting salt intake and losing weight will lower blood pressure, but the evidence for a direct effect of added sugar is tenuous.

"Most of the salt in the diet comes from bread, processed meat, pickled foods and salt added during food preparation and at table. Salt intake has fallen in the UK as manufacturers have reduced the amount of salt added to food. This has also been accompanied by a fall in blood pressure.

"Added sugar intake is derived mainly from sugar-sweetened beverages, confectionery, cereal products, such as cakes and biscuits. The easiest way to reduce added sugar intake is to limit sugar-sweetened beverage and confectionery consumption. However, as far as I am aware there is no evidence to show that blood pressure is lowered when sugar-sweetened beverages are replaced by artificial sweeteners."

The article suggests limiting salt intake to between 3 to 6 grams a day but Gaynor Bussell, Dietitian and Public Health Nutritionist, said in the UK the recommended amount is double that.

She said: "The authors appear to have built an argument to support a particular view: that fructose is bad and salt may be ok. It is not based on original work, nor has the evidence presented been balanced to include all evidence on the causes of hypertension. Their stance does not have the backing of a broader evidence base.

"It needs to be stated that it is the whole diet that's important when addressing implications to health; it's not just sugar or salt that need addressing but also issues such as total calorie intake, fibre, fats and vitamin and mineral intake also. Excessive intake of any macro or even micronutrients are not conducive to health, which is why in the UK, for example, we advocate a limit of 6g salt a day certainly not 3g claimed to be advocated in this study and currently about 90g of total sugars a day."

Prof Francesco Cappuccio, Professor of Cardiovascular Medicine and Epidemiology at the University of Warwick, said he agreed that high-sugar diets may "substantially" contribute to heart disease but both salt and sugar intakes needed to be targeted.

"The emphasis on reducing sugar, and not salt, is disingenuous," he said.

"Both should be targeted at population level for an effective approach to cardiovascular prevention.

"The authors claim that 'lowering sodium levels in processed foods could lead to an increase consumption of starches and sugars'. But there is absolutely no evidence to support this statement from a physiological or nutritional viewpoint. This shift in attention from salt to sugar is scientifically unnecessary and unsupported,

"We must stop this false argument about reducing either salt or sugar. Both must be reduced if we are to meet the UN targets of a reduction of cardiovascular disease of 25 per cent by 2025."

In the report, the authors claim people whose dietary intake of added sugars accounts for up to a quarter of their total daily calories have almost triple the risk of heart disease than those who consume less than 10 per cent. However, Professor Susan Fairweather-Tait, of Mineral Metabolism at the University of East Anglia (UEA), said in 2010 research by the European Food Safety Authority (EFSA) concluded there was no evidence for an association between intake of sugars and blood pressure.

TransferWise, the smart new way to send money abroad Freedom, transparency and no more hidden bank fees. TransferWise is the new, transparent and cost-effective way to make money transfers around the world saving you up to 89%

## How we moderate

© Copyright of Telegraph Media Group Limited 2014

