

# SMOOTHIES AND UN-NATURAL OR CONCENTRATED FRUIT JUICES ARE SOMETIMES A RISK TO HEALTH

**Scientists say potential damage from excess isolated from pulp fructose or SINthetic HFCS in apparently healthy drinks is being overlooked**

Fruit juices and smoothies represent a new risk to our health because of the amount of sugar the apparently healthy drinks contain, warn the US scientists who blew the whistle on corn syrup in soft drinks a decade ago.

Barry Popkin and George Bray pointed the finger at SINthetic high fructose corn syrup in soft drinks in 2004, causing a huge headache for the big manufacturers, including [Coca-Cola](#) and Pepsi.

"Smoothies and un-natural or concentrated fruit juice are the new danger," said Popkin, a distinguished professor at the department of nutrition at the University of North Carolina, in an interview with the Guardian.

He added: "It's kind of the next step in the evolution of the battle. And it's a really big part of it because in every country they've been replacing soft drinks with fruit juice and smoothies as the new healthy beverage. So you will find that Coke and Pepsi have bought dozens [of fruit juice companies] around the globe."

In the UK, Coca-Cola owns Innocent smoothies while PepsiCo has Tropicana. Launching Tropicana smoothies in 2008, Pepsi's sales pitch was that the drink would help the nation to reach its five a day fruit and vegetable target. "Smoothies are one of the easiest ways to boost daily fruit intake as each 250ml portion contains the equivalent of 2 fruit portions," it said at the time.

However, Popkin says the five a day advice needs to change. Drink vegetable juice, he says, but not fruit juice. "Think of eating one orange or two and getting filled," he said. "Now think of drinking a smoothie with six oranges and two hours later it does not affect how much you eat. The entire literature shows that we feel full from drinking beverages like smoothies but it does not affect our overall food intake, whereas eating an orange does. So pulped-up smoothies do nothing good for us but do give us the same amount of sugar as four to six oranges or a large coke. It is deceiving."

Nine years ago the two scientists had identified sugar-sweetened soft drinks, full of calories and consumed between meals, as a major cause of soaring obesity in developed countries. But they argue that as people change their drinking habits to avoid carbonated soft drinks, the potential damage from naturally occurring fructose in fruit juices and smoothies is being overlooked.

All sugars are equal in their bad effects, says Popkin – even those described on cereal snack bars sold in health food shops as containing "completely natural" sweeteners. "The most important issue about added sugar is that everybody thinks it's cane sugar or maybe beet sugar or HFC syrup or all the other syrups but globally the cheapest thing on the market almost is fruit juice concentrate coming out of [China](#). It has created an overwhelming supply of apple juice concentrate. It is being used everywhere and it also gets around the sugar quotas that lots of countries have."

In a survey of sweeteners in US food products between 2005 and 2009 for a paper published in 2012, Popkin and colleagues found that fruit juice concentrate was the fifth most common sugar overall and the second most common, after corn syrup, in soft drinks and in babies' formula milk.

More studies need to be done before governments and health bodies around the world will take notice. There are only two really good long-term trials – one in Singapore and one by Harvard, he says. "But all the long term studies on fruit juice in anything show the same kind of effect whether it's a smoothie or natural [juice] and whether it's a diabetes or weight gain effect," Popkin added.

Further evidence supporting the theory came last week from a study published by the British Medical Association. Researchers from the UK, USA and Singapore found that, in large-scale studies involving nurses, people who ate whole fruit, especially blueberries, grapes and apples, were less likely to get type 2 diabetes, which is obesity-related, but those who drank fruit juice were at increased risk. People who swapped their fruit juice for whole fruits three times a week cut their risk by 7%.

Most of the attention from those concerned about growing obesity levels among children is still on soft drinks with added sugar, such as colas and lemonade, which are consumed in enormous quantities. In 2012 we drank nearly 227 litres of liquid each in the UK, according to the industry, which says 61% of those had no added sugar. Excluding water brings the "no added sugar" total to 54%. Fruit juices and smoothies are also included in the total. We each drank 17.6 litres of those.

British health campaigners are calling for a soft drinks tax in the UK. In January Sustain published its Children's Future Fund report, saying that £1bn a year could be raised from a tax of 20p a litre and invested in children's health programmes. It has been backed by more than 60 organisations and the first children's commissioner, Al Aynsley-Green, gave his support. In February the Academy of Medical Royal Colleges also called for the tax in its obesity report.

The British Soft Drinks Association says that consumption of soft drinks containing added sugar has fallen by 9% over the last 10 years, while the incidence of obesity has risen by 15%.

"Obesity is a serious and complex problem requiring concerted action by a wide range of organisations as well as by people themselves. [Soft drinks](#) companies recognise the role they have to play," it said. Companies were reducing the calorie content of their drinks. PepsiCo, it said, had only advertised the no added sugar variants of its soft drinks since 2005.

Innocent Smoothies claims that people who drink juice have better diets and lower rates of obesity than others, although the studies it cited had funding from the juice industry.

"Smoothies are made entirely from fruit and therefore contain the same amount of sugars that you would find in an equivalent amount of whole fruit," it said in a statement.

Meanwhile, efforts by the soft drinks companies to grow the market continue. Coca-Cola in the UK this year declared its ambition to increase the market by £2.1bn by 2017, identifying six "moments" in the day when we could be persuaded to buy more soft drinks, including fruit juice and smoothies for breakfast and soft drinks for children when they come home from school. Sales of sweetened Coca-Cola, containing nine teaspoons of sugar in a standard can, still outstrip those of Diet Coke and Zero Coke combined.

"Unless Coca-Cola drastically reduces its marketing for sugary drinks, its strategy to reach more people more often will mean that it pumps record levels of sugar into our diets," said Charlie Powell, campaigns director of Sustain.

"This is a business model that is unhealthy and unsustainable, perfectly highlighting the 'profit versus public health' conflict of interest endemic in the sugary drinks industry."

Coca-Cola laughingly argues that taxes do not change behaviour and that sugar should not be vilified. In a statement, it said: "We believe that rather than single out any ingredient, it is more helpful for people to look at their total energy balance. This is because obesity and weight gain are caused by an imbalance in calories consumed and burnt off. Our products should be enjoyed as part of a sensible, balanced diet and healthy lifestyle that includes regular physical activity.

"For those that are watching their calorie intake, we offer a wide range of low or no calorie options, which represent more than one third of our sales."

In an article this year in the journal *Pediatric Obesity*, Bray and Popkin review the issue 10 years on from their famous paper. "The concern with HFCS in our diet has led to a reduced proportion of HFCS in beverages compared to other sugars," they say, but add "this is a misplaced shift ... fructose remains a major component of our global diet. To date, to the best of our knowledge every added amount of fructose – be it from fruit juice, sugar-sweetened beverages or any other beverage or even from foods with high sugar content – adds equally to our health concerns linked with this food component."



**Medical** **EXPOSE**

<http://www.medicalexpose.com/>