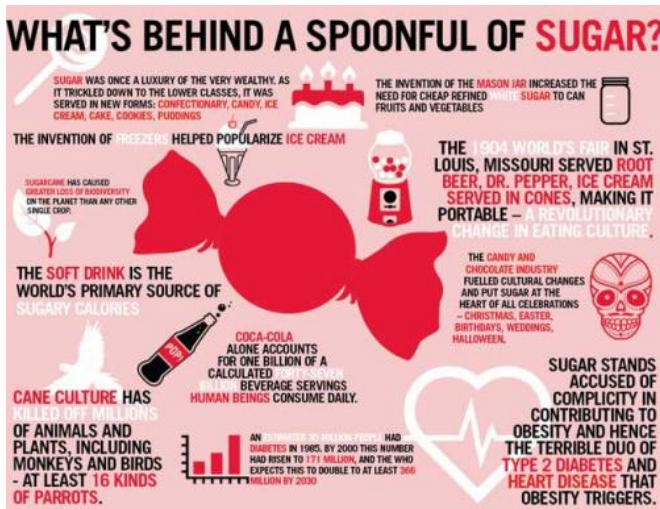


Sugar "has caused greater loss of biodiversity on the planet than any other single crop"

10 September 2014, by Sarah McDonald



Infographic above created by Mel Racho using Lollipop designed by Paulo Sá Ferreira from the Noun Project; Birthday Cake designed by Marcela Abbade from the Noun Project; Mason Jar designed by Brandosaur.us from the Noun Project; Sundae Float designed by Olive Q Wong from the Noun Project; Gumball Machine designed by Straw Dog Design from the Noun Project; Calavera designed by Simon Child from the Noun Project; Soda designed by Blaise Sewell from the Noun Project; Parrot designed by nikki rodriguez from the Noun Project; Bar Graph designed by Scott Lewis from the Noun Project; Heartbeat designed by hunotika from the Noun Project

The World Health Organization recommends keeping sugar consumption to below five per cent of daily caloric intake, yet the fact that most North Americans consume far more than this on a daily basis continues to make headlines and is even the subject of a viral video lecture.

Writer Sarah MacDonald spoke with Elizabeth Abbott, senior research associate at Trinity College and author of *Sugar: A Bittersweet History*, about

the history and the far-reaching impact of the Western world's sugar consumption.

There has been a lot of news coverage in recent years about the negative impact of sugar consumption on North Americans' health. How bad is sugar for us really?

It is very bad if too much is consumed, and too much isn't very much. Sugar is still targeted as the main cause of dental decay, although flossing and brushing might counter its effects. Sugar stands accused as well of complicity in contributing to obesity and hence the terrible duo of [type 2 diabetes](#) and heart disease that obesity triggers. It does this in delicious but dangerous combination with fats such as butter or carbohydrates like flour and cereal, creating chocolate bars, breakfast cereals and other instruments of obesity.

It also does this through soft drinks. The soft drink is the world's primary source of sugary calories, and Coca-Cola alone accounts for one billion of a calculated 47 billion beverage servings human beings consume daily.

As obesity rates soar, so does the type 2 diabetes it so often sets off. Medical experts identify sugar as an accessory. It contributes to [obesity](#) although sugar itself causes neither diabetes nor heart disease.

Sugar remains cheap in the United States. Its accessibility coupled with its deliciousness – not to mention its ubiquity – make trying to persuade over-indulgers to cut back their consumption very difficult. Sugar-laden junk food is particularly seductive to children, the newest victims of type 2 diabetes.

Worldwide, an estimated 30 million people had

diabetes in 1985. By 2000 this number had risen to 171 million, and the WHO expects this to double to at least 366 million by 2030. Raging diabetes will burden health care systems, erode the labor force, hobble military enlistment and transform the families of unwell diabetics.

Are all types of sugar created equal, or are some kinds more detrimental to human health than others?

In any but modest quantity, no type of sugar is healthy. However, the producers of the various varieties resort to "spin" and imply that their type – [sugar beet](#) or [sugar cane](#) or high fructose corn syrup or whatever – are healthier than the others. For example, the cane and beet people argue that a teaspoon of their sugar contains only about 15 calories, is all natural, is fat free and satiates hunger while high fructose corn syrup may "go straight to fat," though this is not scientifically the case. Biochemically, they are pretty much the same and that's how the body responds to them.

How did we become so hooked on sugar? When was it popularized?



Soft drinks are the world's primary source of sugary calories but "sugar-laden junk food is particularly seductive to children, the newest victims of type 2 diabetes," says Elizabeth Abbott Credit: Daniel Horacio Agostini via Flickr

Sugar was once the luxury of nobles and the very wealthy – they did fantastic things with it, including making sugar sculptures unparalleled today. The price of sugar plunged lower and lower and soon sugar was deemed a necessity rather than a luxury or discretionary item. As sugar trickled down to the lower classes, it was served in new forms: confectionary, candy, ice cream, cake, cookies, puddings. English cooks sweetened wine and added sugar to meat and other main course dishes.

Sugar became the opiate of the people.

The invention of the Mason Jar contributed to the need for cheap refined white sugar, used to can fruits and vegetables instead of brown sugar or molasses. It also introduced much more sugar into people's diets.

The invention of freezers helped popularize ice cream and made it part of even modest homes.

The 1904 World's Fair in St. Louis, Missouri facilitated the fast-food revolution, with sugar a chief component – root beer, Dr. Pepper, ice cream served in cones (making it portable) – a revolutionary change in eating culture. Before, eating-on-the-go was considered vulgar. After the Fair, it was embraced as convenient and efficient.

Candy was a huge commodity because it targeted children as consumers. Penny candy was a venue of capitalism, with penny candies meant to attract children who could afford them – a vast range of choice was available and children were encouraged to consider, choose and spend on candy.

The candy and chocolate industry fuelled cultural changes and put sugar at the heart of all celebrations – Christmas, Easter, birthdays, weddings, Halloween. In wartime, soldiers got gifts of candy to remind them of home.

What are some of the effects the Western World's demand for sugar has on the wider world?

Sugarcane (but not sugar beet) has caused greater loss of biodiversity on the planet than any other single crop because planters have destroyed so

much habitat to plant it. It is also the "thirsty crop" – it requires vast amounts of water and, because cane culture uses so many agricultural chemicals in the form of fertilizer, disgorged wastewater pollutes adjacent fields and water sources.

Cane culture has killed off millions of animals and plants, including monkeys and birds – at least 16 kinds of parrots.

In Florida, Big Sugar, the term for most of the sugar industry's major companies, has devastated the Everglades – and politics have trumped environmentalists so that huge sugar companies – (notably the Fajul Brothers who also own La Romana sugar plantations in the Dominican Republic) – can continue to plant and ruin the Everglades.

Coral reefs exposed to the detritus of cane field runoffs are now bleached to the point of no return.

Do you think we do enough to regulate sugar intake and nutritional labelling in Canada?

First, let's remember that after huge amounts of effort, Canada mandated that warnings about tobacco's lethal effects had to be printed on cigarette packages. How effective are they? Do young people resist the "coolness" of cigarettes because of those scary labels? Does warning people really have much of an effect?

If people know about the dangers of sugar, some may be guided by their knowledge to cease and desist eating the product, or to eat much less but I'm not optimistic that it is a great help. Not eating prepared foods is absolutely the best way to go, but I can't fool myself. That's a long shot.

Canada is beginning to take labeling seriously. But you can't equate "[sugar](#) intake and nutritional labeling." The government can regulate the latter but not the former, alas.

Provided by University of Toronto

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