

Before It's Too Late to Check the Sugar in the Cup

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Recent decades witnessed the epidemic of obesity in both western and eastern of the world. In China, the prevalence of overweight and obesity among adults were 30.1% and 11.9% respectively in 2012. The causes of obesity comprise a spectrum of factors including genetic susceptibilities, dietary intake, other lifestyle factors, and also social-economic development. Sugar-sweetened beverages (SSBs) have drawn great attention for their "zero" contribution to satiety but considerable energy density. According to a couple of well-powered prospective cohort studies, SSB consumption was consistently associated with risks of obesity and type 2 diabetes [1]. Meanwhile, replacing SSB with sugar-free drinks was showed to be effective in losing adiposity according two large randomized controlled trials published in the New England Journal of Medicine [2,3]. In the United States, SSBs ranked the top single source of energy intake [4]. The US government has taken actions to control SSB consumption by taxing. In fact, the largest body of overweight and obese population live in China. Taking Coca-Cola and PepsiCo as examples, their sale performance in China almost tripled from 2000 to 2010 [5]. However, people here are just enjoying SSBs.

During Tang dynasty (618 -907AD) of China, it was believed that plump was beautiful and fashionable. Nowadays, we can also find many plump potteries (Photo 1) or sculptures (Photo 2) in Xi'an, previously the capital of Tang dynasty. After thousands of years, will obesity revive in this ancient city? The calories that the modern Tang people drink may be of importance.



Photo 1: Painted pottery female exhibited in the Shaanxi History Museum, produced in Tang dynasty.



Photo 2: Female sculpture at the North Square of the Wild Goose Pagoda, Xi'an.

Walking in any big supermarket in Xi'an, you have plenty of choices of buying drinks, including sodas (Photo 3), fruit juices (Photo 4), herbal tea (Photo 5), protein drinks (Photo 6), as well as lactobacillus beverages (Photo 7), etc. People tend to be attracted by their taste advertisement and function claim, but pay little attention to the fact that sugar always ranks the second right behind water on their lists of ingredients. In Xi'an, there are more than 70 supermarkets, where similar drink products could be finds as the photos show. We never heard of any news about unmarketable drinks from the local media.



Photo 3: Sodas products in a supermarket of Xi'an.



Photo 4: Fruit juices in a supermarket of Xi'an.



Photo 5: Herbal tea in a supermarket of Xi'an.



Photo 6: Protein drinks in a supermarket of Xi'an.



Photo 7: Lactobacillus beverages in a supermarket of Xi'an.

Compared with pre packaged drinks, takeaway drinks are more like a fashion in China. A takeaway drink would always be milk tea or fruity beverage with or without further flavour modifications. In Xi'an, some teenagers or young adults seem can't live without them, while having meals (Photo 8), ordering a meal (Photo 9), or even babysitting (Photo 10).



Photo 8: College students having meals with soda drinks.



Photo 9: Teenagers ordering meals with takeaway drinks.



Photo 10: Drinking takeaway beverage while babysitting.

The harmfulness of SSB overconsumption is clear according to mountains of research evidences [4]. Coincidence with the ongoing commercial promotion of drink products, however, people won't stop drinking beverages, not only in Xi'an, but also in more than 300 developing cities in China [6].

Will the "plump shape" sweep the modern China? Will the prevalence of obesity in less developed regions follow? Will the nation have to pay more on the burden of metabolic chronic disease?

Maybe it's not too late to check the sugar in the cup.

Conflict of Interest

The authors have no conflict of interest.

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