

High fizzy soft drink consumption linked to violence among teens

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Teens who drink more than five cans of non-diet, fizzy soft drinks every week are significantly more likely to behave aggressively, suggests research published online in *Injury Prevention*. This includes carrying a weapon and perpetrating violence against peers and siblings.

US lawyers have successfully argued in the past that a [defendant](#) accused of murder had diminished capacity as a result of switching to a junk [food diet](#), a legal precedent that subsequently became known as the "Twinkie Defense" – a twinkie being a packaged snack cake with a creamy filling.

The researchers base their findings on 1,878 teens from 22 public schools in Boston, Massachusetts. The teens were part of the Boston Youth Survey, a biennial survey of 9th to 12th graders (14 to 18 year olds).

The teens were asked how many carbonated non-diet [soft drinks](#) they had drunk over the past seven days. Intake was measured in cans (355 ml or 12 ounces), and responses categorised according to quantity.

The responses were divided into two groups: those drinking up to four cans over the preceding week (low consumption); and those drinking five or more (high consumption). Just under one in three (30%) respondents fell into the high consumption category.

The researchers then looked at potential links to violent behaviour in this

group, by asking if they had been violent towards their [peers](#), a sibling, or a partner, and if they had carried a gun or knife over the past year.

Responses were assessed in the light of factors likely to influence the results, including age and gender, alcohol consumption, and average amount of sleep on a school night.

Those who drank 5 or more cans of soft drinks every week were significantly more likely to have drunk alcohol and smoked at least once in the previous month.

But even after controlling for these and other factors, heavy use of carbonated non-diet soft drinks was significantly associated with carrying a gun or knife, and violence towards peers, family members and partners.

When the findings were divided into four categories of consumption, the results showed a clear dose-response relationship across all four measures.

Just over 23% of those drinking one or no cans of soft drink a week carried a gun/knife, rising to just under 43% among those drinking 14 or more cans. The proportions of those perpetrating violence towards a partner rose from 15% in those drinking one or no cans a week to just short of 27% among those drinking 14 or more.

Similarly, violence towards peers rose from 35% to more than 58%, while violence towards [siblings](#) rose from 25.4% to over 43%.

In all, for those teens who were heavy consumers of non-diet carbonated soft drinks, the probability of aggressive behaviour was 9 to 15 percentage points higher - the same magnitude as the impact of alcohol or tobacco - the findings showed. "There may be a direct cause-and-

effect-relationship, perhaps due to the sugar or caffeine content of soft drinks, or there may be other factors, unaccounted for in our analyses, that cause both high soft drink consumption and aggression," conclude the authors.

Provided by British Medical Journal

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