Think Before You Drink!

How does the consumption of Sugar Sweetened beverages compromise children's health?

Alice Renwick

SAY NO TO SUGAR

- 1x 600mL bottle of fizzy contains **16 teaspoons of sugar.**
- High consumption leads to **Obesity and Type 2 Diabetes**
- 1x 600mL bottle of fizz each day for a year = **23kg** sugar

Did you know?

Sugar-sweetened beverages (SSBs)

- High energy beverages contain bad ingredients:

  -Fructose corn syrup and sucrose
- High consumption of these beverages compromise children's health.

Drinks include:

- Soft drinks: Coca-Cola, Lemonade, Fanta,
- Cordial & Energy Drinks: Mother, V, Lift plus

- **56-85%** of school aged children consume at least one soft drink a day (Ministry of health, 2003).
- **28%** of total sugar consumed by 15y-18y children comes from SSBs.
- Evidence suggests that added sugars should provide only **10%** of dietary energy.
- SSBs contain high amount of readily absorbable sugar and is the highest contributor to **Obesity** and increased risk of **Type 2 Diabetes.**
- SSBs are readily available in schools, supermarkets and children's homes which is a concern.

Water is the BEST choice:

No or low sugar refreshments include:

⇒ Unflavoured milk (good for your teeth)

⇒ Water with slices of lemon/ lime

- Get off the couch and enjoy the sunshine
- Carry a bottle of water around with you to save you buying a sugary drink!

SAY NO

Literature Review:

Key health related factors

- Consumption of SSBs has increased considerably among children and adolescents due to the increase in drink sizes and the number of servings consumed (Ludwig, Peterson & Gortmaker, 2001).
- SSBs have more fattening qualities than solid food. They do not satisfy your hunger like solids, which increases the desire for more of these bad sugars.
- Sugar sweetened beverages are low in nutrients
- Children consuming SSB gained **35% more weight** than those who were not consuming them.
- Consuming 340mL sugary drink a day(less than one can) increase risk of Type 2 Diabetes by **22%**

Obesity

- Increased weight gain from consuming SSBs comes from clustering these SSB with high saturated and trans fat foods e.g. chips, pastries etc. (Malik et al., 2010).
- Being overweight increases your chance of diabetes

Type 2 Diabetes:

Ingredients which contribute to Type 2 Diabetes:

- Sugary drinks and corn syrup raises blood glucose in your blood linked to the cause of diabetes
- Caramalisation agents are also related to the cause of Type 2 Diabetes

References:

De Ruyter, J.C., Olthof, M.R., Seidell, J.C., & Katan, M.B. (2012). A Trial of Suga Freeor Sugar- Sweetened Beverages and Body Weight in Children. *The New Englana Journal of Medicine, 367.* 1397-1406. doi: 10.1056/NEJMoa1203034

Health Promotion Agency. (2014). Resources to support your work. Retrieved from: http://www.hpa.org.nz/nutrition-physical-activity-resources

Ludwig, D.s., Peterson, K. E., & Gortmaker, S. L. (2001). Relation between consumpion of sugar-sweetened drinks and childhood obesity: a prospective, observational analysis. *The Lancet*, 357 (9255) 505–508. doi: 10.1016/S0140-6736(00)04041-1

Ministry of Health. (2003). *NZ food NZ children: Key results of the 2002 national. Children's nutrition survey.* New Zealand: Wellington. Retrieved from http://www.moh.govt.nz/notebook/nbbooks.nsf/0/658d849a2bac7421cc256dcc7ec/$FILE/nzfoodnzchildren.pdd900f

Malik, V.S., Popkin, B.M., Bray, G.A., Despres, J., Willett, W.C., & Hu, F.B. (2010). Sugar Sweetened Beverages and Risk of Metabolic Syndrome and Type 2 Diabete *Diabetes Care. 33* (11). 2477–2483. doi: 10.2337/dc10-1079

Table 1: PECOT

PECOT category	Information relating to question	Explanation
Population	Children between the ages of 5-18 years who consume sugar sweetened beverages on a daily basis.	Literature indicates that school aged children tend to be more exposed to sugar sweetened beverages in both school and home environments.
Exposure	Children who consume sugar sweetened beverages (SSB) daily	We will be looking for articles where children consume sugar sweetened beverages daily.
Comparison	Children who do not consume SSB on a daily basis	These children are the comparison as research is done on children consuming beverages and their outcome of obesity and type 2 diabetes
Outcome	Children that consume these beverages and affected by diabetes type 2 and obesity.	Because literature indicates that obesity and type 2 diabetes appear the most prominent health issues related to consumption of SSBs in children.
Time	No time period considered	There is no time period considered as this appears to be an ongoing issue.

Through the use of the PECOT model (Schneider, Whitehead, LoBiondo-wood & Haber, 2013) I was able to develop the research question on a current New Zealand issue around children's health. This review is based on the question: How does the consumption of sugar-sweetened beverages compromise children's health. The PECOT model allowed me to structure a formal question to guide a more specific search for literature around the relationship between sugar sweetened beverages, obesity and type 2 Diabetes.

Reference:

Schneider, Z.,Whitehead., D., LoBiondo-Wood, G., & Haber, J. (2013). Nursing and midwifery research methods and appraisal for evidence – based practice (4th ed.). Sydney, Australia: Mosby.