

When can children drink fruit juice?

Key points

- Most observational studies report no significant links between drinking 100% fruit juice (FJ) in childhood and later weight gain and obesity risk.
- Current evidence suggests no harmful effects on children's teeth when a moderate amount of FJ is consumed at mealtimes.
- Studies have found that children who consume FJ are more likely to meet recommendations for fruit intake as they get older.
- Children from the age of 1 year can consume FJ with meals in a free-flow cup, diluted with water if desired.

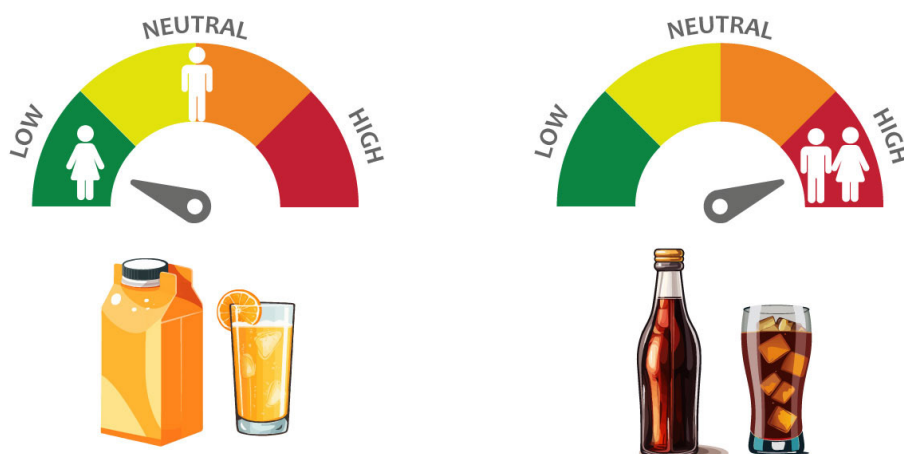
By law, products labelled as 'fruit juice' are not permitted to contain added sugars. Yet, because the total sugar content of FJ (8-10g per 100mL) is similar to that found in sugar-sweetened beverages, FJ can be wrongly categorised with cordials, nectars and carbonated drinks. This has led to concerns about how FJ impacts on the health of children. However, there's a wealth of evidence to show that FJ and sugar-sweetened beverages are not the same when it comes to children's health.

Does fruit juice increase obesity risk in children?

Most observational studies report no significant links between drinking FJ in childhood and later weight gain and obesity risk. The latest UK study, from 2024, found that giving FJ to young children didn't increase their likelihood of becoming overweight in adulthood¹. In fact, girls who drank FJ had a lower body fat in adulthood compared with those given carbonated drinks, see Figure 1.

FIGURE 1

HOW DO CHILDHOOD DRINKS AFFECT RISK OF OVERWEIGHT IN ADULTHOOD



Benton D & Young HA (2024). Eur J Clin Nutr 78: 521–526.

Even when statistical associations are found, the real-life impact is negligible. A meta-analysis from Canada found that children drinking a daily 237mL serving of FJ increased their body mass index by 0.03 over time². Yet, for an average child of 1.3-1.4 metres, this equates to a mere 60g weight increase over 4 years (the average study duration). In addition, the US serving size used in this study is far greater than amounts recommended in European countries. Hence, the risk to obesity in children is negligible as confirmed by a position paper from the European Society for Paediatric Gastroenterology, Hepatology and Nutrition which stated: “No evidence was found to support a positive association between fruit juice consumption and weight gain”³.

Does fruit juice harm children’s teeth?

There does not appear to be any consistent evidence for negative harm to dentition from FJ intake, as stated in the UK Scientific Advisory Committee on Nutrition’s report on Carbohydrates and Health⁴. A UK charity, the Oral Health Foundation, notes that FJs are not harmful to teeth when consumed at mealtimes or with a straw⁵.

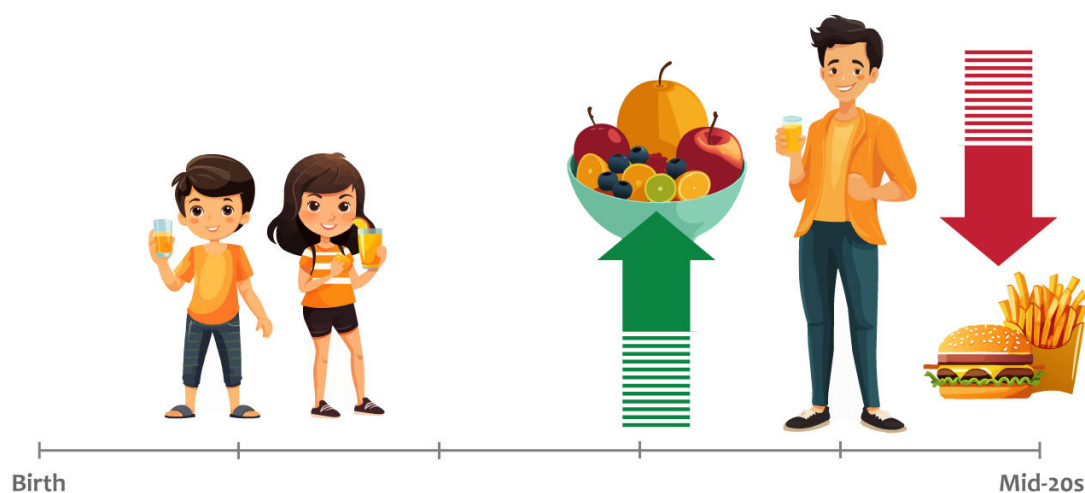
Fruit juice and diet quality

Many studies have examined the impact of FJ intake on the overall quality of the diet (see Figure 2). One study analysed beverage consumption in over 8,000 American 4–19-year-olds finding that FJ consumers ate more fruit and had higher intakes of vitamin C, compared with other consumption patterns⁶. Fruit juice and milk drinkers had the highest healthy eating index scores.

Another study followed up 100 children aged 3-6 years for around 10 years to examine whether drinking FJ impacted on fruit intake and diet quality as they aged⁷. The study found that diet quality and the amount of juice drunk tended to decline as they reached their teens. However, children who drank FJ more regularly had higher intakes of vitamin C, while pre-school children who drank FJ were more likely to eat whole fruit and achieve recommendations for fruit as they got older. By the time children reached 14-17 years of age, they were nearly four times more likely to meet recommendations for whole fruit and total fruit if they were daily FJ drinkers in their pre-school years. Again, this study found no detrimental association with body mass index or risk of obesity.

FIGURE 2

DRINKING FRUIT JUICE IN CHILDHOOD IS LINKED TO A HEALTHIER DIET IN ADULTHOOD

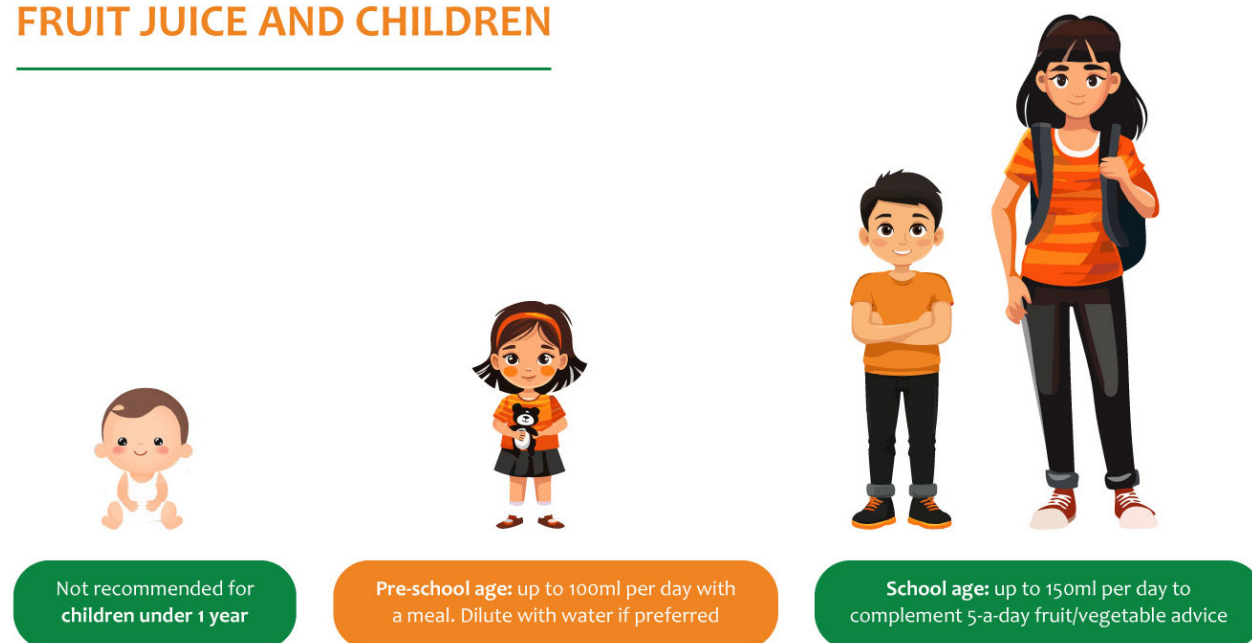


Conclusion

Excepting fibre, FJ is nutritionally similar to the whole fruit it is made from. Both contain naturally occurring fruit sugars as well as a range of micronutrients and plant bioactives. Recent research suggests that FJ has no negative effect on children's weight, or the risk of becoming overweight in adulthood. Furthermore, observational studies suggest that regular consumers of FJ have higher quality diets, including being more likely to achieve recommendations for fruit intake. Therefore, FJ can be a part of children's diets when consumed with meals as summarised in Figure 3 which is based on collated recommendations from around the world.

FIGURE 3

FRUIT JUICE AND CHILDREN



Healthy Beverage Consensus Statement [https://healthyeatingresearch.org/wp-content/uploads/2019/09/](https://healthyeatingresearch.org/wp-content/uploads/2019/09/HER-HealthyBeverage-ConsensusStatement.pdf)

HER-HealthyBeverage-ConsensusStatement.pdf

NHS <https://www.nhs.uk/conditions/baby/weaning-and-feeding/what-to-feed-young-children/>

December 2024.

References

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