

Fruit juice and its contribution to fruit intakes

Key points

- Fruit and vegetables are well established to be important for a healthy diet and to reduce certain disease risks.
- Many Europeans do not meet minimum targets for fruit and vegetable intake.
- Fruit Juice (FJ) is a natural product; it is just fruit that has been juiced. This means there are many similarities between whole fruit and FJ.
- In some countries, such as the UK, Norway, Ireland and Switzerland, FJ can count towards dietary recommendations for fruit and vegetables.
- FJ can provide a low-cost, convenient way to complement intakes of fruit.

Can fruit juice complement fruit intake?

Across Europe, citizens are advised to eat plenty of fruit and vegetables, expressed as the 5-A-DAY message in some countries, to reach the World Health Organization recommendation of at least 400g per day¹. While dietary guidelines differ by country, this recommendation is a consistent theme. According to 2019 figures from Eurostat, a third (33%) of people aged over 15 years living in the EU didn't eat vegetables or fruit every day². Additionally, only one in eight (12%) met the target of five servings a day.

With such a large proportion of people failing to achieve recommendations for fruit and vegetables, simple and practical solutions are needed to boost intakes. Fruit juice is a convenient and low-cost option, particularly given concerns about affordability and food inflation. Providing a range of essential nutrients and plant bioactives, at similar levels to those found in the whole fruit, makes FJ a convenient and nutritious drink^{3,4}. For example, a 150mL glass of orange juice contains:

- Vitamin C - 67.5 mg (84% of the Nutrient Reference Value)
- Potassium - 264 mg (13% of the Nutrient Reference Value)
- Folate - 32.3 mcg (16% of the Nutrient Reference Value)
- Total carotenoids - 1.1 mg
- Hesperidin (a citrus polyphenol) - 78 mg.

Recommendations for fruit juice

Many countries in Europe include a moderate consumption of FJ in their dietary recommendations, which reflects scientific evidence supporting the contribution of 100% fruit to health-promoting diets⁵. Some countries state that FJ can provide the equivalent of one serving of fruit per day when a small glass (100-200mL) is consumed. Specific recommendations are as follows:

- Recent Norwegian guidelines state that a low to moderate intake of FJ may form part of the fruit recommendation and is a healthy choice⁶.
- In Denmark, 100mL of FJ can count towards their recommended 600g of fruit and vegetables or '6 a day', but only once per day⁷.
- The latest nutrition policy from Switzerland recommends that one fruit/vegetable portion daily may be replaced by 200mL of 100% vegetable or FJ⁸.
- Spanish guidelines state that FJ can occasionally replace whole fruit to support recommendations⁹.
- In the UK and Ireland, a maximum of 150mL FJ can count towards daily fruit and vegetable recommendations^{10, 11}.

In the USA, a cup of FJ can count towards fruit and vegetable intakes while, in Australia, a 125mL glass of 100% juice can 'occasionally act as a substitute' for fruits and vegetables^{12, 13}.

Some countries' dietary guidelines note concerns about potential detrimental effects on teeth with frequent consumption of FJ. However, there does not appear to be any consistent scientific evidence linking FJ with increased risk of dental decay, and experts advise that any risk can be minimised by consuming FJ with a meal^{14,15}.

Conclusion

Although recommendations for fruit and vegetable consumption are well established and are widely promoted, most adults and children in Europe do not meet targets. Fruit juice provides a convenient and nutrient-dense option for supporting fruit targets. Many countries around the world recommend that a small glass of juice can complement recommendations to increase fruit intake.

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