

The role of fruit and vegetable juices and smoothies in the 5-a-day

Fruit and vegetable juices and smoothies have been recognised as a valuable contribution to a healthy diet. They provide primary source of vitamin C, and are important sources of a number of other vitamins and minerals. Fruit smoothies can also provide a significant amount of dietary fibre.

Juices and smoothies are nutritious, enjoyable, and easy to consume. Therefore the consumption of a serving of a fruit or vegetable juice or smoothie is very often included in the recommendations for increased consumption of fruit and vegetables.

General dietary advice, including 5+ a day recommendations, has been published by the majority of European countries (UK, France, Germany, Sweden, Austria, Finland, Poland, Norway, Ireland, Denmark, Italy, Spain). The Australian government and Canadian dieticians note fruit juice as an appropriate part of a healthy diet. The Dietary Guidelines for Americans 2010 advise average daily intake amounts for the fruit category including 1 cup of vegetable or fruit juice.

Furthermore, recent reports on a study of the relationship between fruit juice intake and obesity concluded that the findings are consistent with many other research projects that have found no association between consumption of 100% juice and obesity. Moreover, it is believed that children who drank 100% fruit juice had healthier overall diets than non-juice consumers, and had significantly lower intakes of total fat, saturated fat and sodium.



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5 A DAY

**The role
of fruit juices**



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The role of fruit juices

What is 5-a-day?

5-a-day is the name of a number of programmes in various countries worldwide built to encourage the consumption of at least five portions of fruits and vegetables each day, following recommendations by the World Health Organization to consume a minimum of 400g of fruits and vegetables daily.

5-a-day programmes in the EU

• Austria:	www.5xamtag.at
• Denmark:	www.6omdagen.dk
• Finland:	www.kotimaisetkasvikset.fi
• France:	www.mangerbouger.fr
• Germany:	www.5amtag.de
• Italy:	http://www.salute.gov.it/stilivita
• Spain:	www.5aldia.com
• Norway:	www.bama.no , www.frukt.no
• Poland:	www.5porcji.pl , www.5porcjiwzskole.pl
• Sweden:	www.slv.se/en-gb/Group1/Food-and-nutrition/Recommendations/Half-a-kilo-a-day
• UK:	www.5aday.nhs.uk
• Ireland:	www.dohc.ie/press/releases/2003/20030604.html



Which products are part of the 5-a-day?

Almost all types of fruit and vegetable can contribute to your 5-a-day:

- Fresh fruit and vegetable
- Frozen fruit and vegetable
- Canned fruit and vegetable
- Dried fruit
- 100% fruit or vegetable juices/smoothies

How to achieve your 5-a-day?

To get maximum nutritional benefits, you need to eat diverse types of fruit and vegetable. This is because various fruits and vegetables contain different levels of fibre, vitamins, minerals and other nutrients.

What counts as 1 portion of the 5-a-day? ¹

> FRESH FRUIT

One portion is two or more small fruit, for example plums, kiwis, apricots, several strawberries and cherries, etc. For medium-sized fruit, one portion is one piece of fruit, such as apple, banana, pear, orange, nectarine, etc. For large fruit one portion can be half a grapefruit, one slice of melon, one large slice of pineapple or two slices of mango.

> VEGETABLES

Whether fresh or cooked, a portion of vegetables should be around 80g, i.e. 3 or 4 tablespoon.

> FROZEN AND CANNED FRUIT AND VEGETABLES

Roughly the same quantity as you would eat for a fresh portion.

> DRIED FRUIT

A portion of dried fruit is around 30g. This is about one tablespoon of raisins, currants or mixed fruit, two figs, three prunes or one handful of dried banana chips.

> JUICES AND SMOOTHIES

A 200ml glass of 100% fruit or vegetable juice or a smoothie counts as a portion. Juice counts as a maximum of one portion a day, mainly because it contains less fibre than whole fruits and vegetables. However, in some countries a 250ml mixed fruit smoothie can count as two portions depending on its fibre content.

Nutrition Data

The nutrition data demonstrate the particular value of fruit and vegetable juices in the diet. Orange juice, for example, the most popular fruit juice, contains:

- High amounts of vitamin C
- Measurable quantities of 9 other vitamins
- 10 minerals and trace elements
- 18 amino acids
- 4 of the 6 anti-oxidant carotenoids

Other fruit and vegetable juices have a similar composition. The table below shows examples of nutritional recommendations.

Type of Fruit Juice	Nutritional recommendations	mg/100g (approximately)
Apple juice	Source of Potassium	102
Grape juice	Source of Potassium	125
Grapefruit juice	Good source of Vitamin C	25,7
	Source of Folate	14,5 (µg)
Pineapple juice	Source of Vitamin C and Folate	9,5
		23 (µg)
Tomato Juice	Good source of Lycopene and Vitamin C	27,5
		30
	Source of Vitamin A and Potassium	100 (µg) 227



¹ Source: <http://www.nhs.uk/Livewell/5ADAY/Pages/Portionsizes.aspx>