

**AIJN GUIDELINES DOCUMENT REGARDING NUTRIENT PROFILES OF
FRUIT JUICES AND NECTARS**

Questions & Answers

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Who is AIJN?

The European Fruit Juice Association (AIJN) has been representing the manufacturers of fruit and vegetable juices, nectars and other juice-based products, in Europe since 1958.

AIJN is closely cooperating with the European Institutions on the matter of Fruit and Vegetable juices legislation (also in the scope of Nutrient Profiles).

Members

AIJN has three categories of membership:

- Full Members: National fruit juice associations from EU Member States. At present 18 associations from 15 countries are members.
- Observer Members: non-eligible National associations, Individual companies or their associations from non EU Countries supplying EU juice industry (raw materials or package), and International associations active in the fruit and vegetable juices and nectars industry.
- Affiliated Member: The Turkish Fruit Juice Industry Association (MEYED)

Mission

The aim of AIJN is to work for the best possible political, regulatory and economic framework at EU level in order to add value and promote the growth of the fruit juice industry. More specifically the AIJN is to:

- Represent the interests and promote the image of the European Fruit Juice Industry in all its contacts with EU Officials, EU Institutions and other relevant organisations;
- Support and lobby European Union Institutions on all aspects of policy and legislation affecting the production, marketing, sales and trade in fruit juices and nectars in the EU;
- Promote and maintain fair competition and commercial viability of fruit juices and nectars in the EU;
- Provide, in collaboration with the European Quality Control System (EQCS), mechanisms and instruments securing safe and authentic goods in order to maintain and increase consumer confidence in the

good and healthy image of fruit and vegetable juices and nectars;

- Inform and advise the Fruit Juice Industry on all aspects of European legislation likely to affect their businesses

Main achievements and current work

One of the main activities of AIJN is the development of instruments such as the reference guidelines, codes of practice, position papers, etc., for the benefit of the whole fruit juice industry. These instruments complement the fruit juice legislation.

AIJN developed two very important tools for the industry, which are:

- The Code of Practice for evaluation of fruit and vegetable juices which sets absolute quality requirements and criteria for the evaluation of identity and authenticity of 19 different fruit juices;
- The European Quality Control System which aims at maintaining the good and healthy image of fruit juice products and ensuring fair competition in the single European market.

More recently AIJN developed a guideline for the interpretation of the fruit juice directive 2001/112 EC, a guideline for flavour restoration, a traceability guideline as well as a revision of its hygiene Code.

Fruit Juice Consumption

The annual per capita consumption is 23.3 l of fruit juices and nectars in the EU of which 15.20 l is fruit juice.

The average juice consumption per day is less than 100 ml, representing a contribution to the daily energy intake of less than 2-3%.

Many studies show that fruit juices are mainly consumed during mealtimes, mostly during breakfast, and to a much lesser extent as a snack, increasing the frequency of consumption.

Are Fruit juices, nectars and drinks regulated by the EU?

Fruit and Vegetable juices are regulated by the European Directive 2001/112/EC, relating to fruit juices and certain similar products intended for human consumption, which is currently under review.

The European Union legislation strictly defines this category of products with standards and requirements. Minimum processing is involved in the production of Fruit juices.

Colours and preservatives are not allowed, and additives are restricted and strictly regulated, in order to keep the natural character of juices.

What are Nutrient Profiles?

Regulation (EC) No 1924/2006, on nutrition and health claims requires that the foods bearing these claims meet certain nutrition requirements or so called "nutrient profiles".

Foods need to comply with these conditions in order to be eligible to make claims

The Commission in cooperation with the European Food Safety Agency (EFSA) will establish nutrient profiles for food bearing nutrition and health claims by January 2009. Foods that do not meet the nutrient profiles criteria will not be allowed to make health claims.

Fruit juices, nectars and drinks are important sources of vitamins and minerals and other beneficial food components that are present in fruit and vegetables. They should therefore be exempted from the profiling system, in order to give the opportunity to promote fruit and vegetable juices, nectars and drinks consumption.

Why should Fruit and Vegetable juices, nectars and drinks be able to bear claims?

Fruit and Vegetable juices, nectars and drinks add substantially to the daily intake of fruit and vegetables.

Fruits and vegetable juices, nectars and drinks are very convenient, because of their packaging and presentation, to be used in daily life (school, work, meal times etc.).

They are natural sources of many beneficial active substances, minerals and vitamins.

Their production involves the minimum processing necessary. The addition of sugar and other food improvement agents is also strictly regulated.

Because of the reasons above, communication on the health benefits of fruit and vegetable consumption is useful and helpful information for the consumer, which would no longer be possible if juices were to be covered by nutrient profiles.

Why are Fruit and Vegetable products so specific?

Intake surveys show a chronically low intake of fruit and vegetables in the population. Instead of the recommended five portions a day, many consumers do not even consume one portion daily. Fruit and vegetable juices are minimally processed forms of fruit and contain most of the beneficial components of the fruit in its natural form. They are therefore a very useful source of fruit and vegetables in the diet.

Furthermore, scientific data show that pure fruit and vegetable juices are equally beneficial as whole fruit and vegetables when considering their effects in relation to cancer and coronary heart disease prevention.

Pure fruit and vegetable juices are the primary source of vitamin C in the diet. They are also good sources of folate, potassium and polyphenols.

Fruit juices are generally considered in dietary recommendations to be part of the 5-a-day campaigns in many of the Member States.

Don't fruits and vegetable juices contain a lot of sugar?

Pure fruit juice contains naturally occurring sugars that are also present in the fruit.

In some cases sugar is indeed added because for some fruits the juice is not drinkable and some fruits cannot even be pressed. The juice has to be made from fruit puree which is unpalatable. Sugar is then added to correct taste to a level that is equivalent to other fruit juices.

In all cases such addition is kept to the absolute minimum that is technically and organoleptically required to obtain a safe and palatable product.

Nevertheless, due to their fruit and vegetable content, such products are still important sources of vitamins, minerals and other beneficial food components, and should be able to be promoted as such.

Does the EU promote fruit and vegetable consumption?

Consumption of fruits and vegetables in the EU is low and far below the recommended five portions a day.

In this regard, the EU and Member States have created different programmes in order to support fruit and vegetable consumption (school fruit schemes, EU internal market and third countries promotion, National guidelines).

As a matter of coherency with European public health policy, authorising fruit and vegetable juices, nectars and juice drinks, to make claims is compatible with the general goal of helping to increase intake of fruit and vegetables.

Is Sugar in Fruit juices, nectars and drinks a problem?

In 100% fruit juices, the sugars present are naturally occurring and impossible to remove. Sugars are generally not added to 100% Fruit juices.

In Fruit-juice based drinks, sugar is sometimes needed to obtain a drinkable juice, especially in case where:

- The fruits cannot be pressed to extract the juice (juice made of pulped fruit and sugar addition for strict palatability reason).
- The juice in its natural state is not palatable (too acid or too concentrated).

In most cases the total amount of sugars present will be comparable with the natural sugar content of 100% pure fruit juice.

In general, the energy content of fruit juice is even lower than that of milk, so moderate consumption will not add substantially to energy intake. It is generally recognised that one glass of juice (200 ml) is equivalent to one of the five portions of fruit and vegetables recommended.

Is there a link between Fruit and Vegetable juices, nectars and drinks, and obesity?

A link between obesity and fruit and vegetable juices, nectars and drinks is most unlikely.

Fruit and vegetable juices have high nutrition density (high vitamins and antioxidants content) but not necessary high caloric content. Their average nutrition content is less than that of milk. Furthermore, there is no difference between the sugars found in fruit juice and that present in the fruit itself.

While obesity rates have increased in recent years, fruit juice consumption has largely remained stable. It even appears that people who consume fruit and vegetable juices, nectars and drinks are found to have healthier overall diets than those who do not consume these products.

The average juice consumption per day is less than 100 ml, representing a contribution to the daily energy intake of less than 2-3% of the daily energy intake of an adult.

Are there dental caries risks with Fruit and Vegetable juice based products?

Concerns have been raised that the acid and sugar content of fruit juice could have a deleterious effect on dental health. However, it is scientifically proven that the consumption of fruit juice as part of a balanced diet can be compatible with good dental health.

- There is no difference between fruit and fruit juice in that perspective
- Lower levels of dental caries do not necessarily exist where the consumption of sugar is low. Similarly higher consumption of sugar does not equate to more dental caries.
- The main important element to reduce caries is good dental hygiene and the use of fluoride.

Are there dental erosion risks with Fruit and Vegetable juice based products?

Dental erosion is caused by a combination of different factors: biological factors (i.e. saliva flow and buffer, tooth structure), chemical factors (i.e. pH,

buffering capacity, acids and minerals in the food) and behavioural factors (i.e. eating and drinking habits, tooth brushing, vomiting and occupation)¹.

Like many other foodstuffs, fruit juices have low pH and high buffering capacity. However, due to the behavioural and biological factors that may cause dental erosion it is very hard to predict erosive potential *in vivo* based on chemical composition². Therefore, even if fruit juices have a chemical composition that may theoretically cause dental erosion, it cannot be concluded that they actually cause erosion. If the composition of the saliva is normal and there is no extreme consumption behaviour, the effect can be minimal.

What is the Sodium content of Fruit and Vegetable juices based products and is there any link with high blood pressure and risk of heart disease?

Like fruit itself, fruit juices, nectars and drinks contain very low amounts of sodium, saturated fats and cholesterol.

The presence of sodium in vegetable juices or vegetable juice-based products is generally limited to the necessary technical limits, for reasons of palatability.

The positive nutrients present in the product largely outweigh potential negative effects of sodium consumption.

On the contrary, the consumption of fruit and vegetable juices, nectars and drinks has been clearly shown to have a protective effect in relation to stroke risks.

Can Fruit and Vegetable juices nectars and drinks help in preventing cardiovascular disease?

Consumption of fruits and vegetables is strongly associated with a reduced risk of developing cardiovascular disease. This property is also associated with the consumption of fruit and vegetable juices, which are not nutritionally inferior to whole fruits and vegetables.

¹ Lussi, A, Jaeggi T., *Erosion-diagnosis and risk factor, Clin oral invest* 2008; 12 (suppl 1): 5-13.

² Lussi A, Jaeggi T, Zero D. *The role of diet in the aetiology of dental erosions, Caries Res* 2004; 38 (suppl. 1): 34-44

The positive impact which fruit and vegetables offer comes not only from fibre but also from antioxidants and other food components which are present in high quantities.

Can Fruit and Vegetable juices nectars and drinks help in preventing cancer?

The consumption of the recommended intake of 400 g/day or more of a variety of vegetables and fruit is associated with a decrease in the overall incidence of cancer by 20%.

Numerous substances, linked to anti-carcinogenic activity have been identified in fruit and vegetable juices, nectars and drinks: carotenoids, beta-carotene, lycopene, polyphenols, isoflavones, vitamin C and E, glucosinolate, indoles, phytosterols, folates, etc.

In addition, benefits in relation to certain specific cancers (colon, breast, uterus, stomach, lung, prostate, etc.) have been described.

Is the presence of dietary fibre important in Fruit and Vegetable juices nectars and drinks?

As compared to fruit and vegetables, the content of dietary fibre in juice is quite low. This is not the case for other positive nutrients (vitamins, minerals and trace elements, amino acids, anti-oxidant, carotenoids).

However, some fruit and vegetable juices, nectars and drinks also contain dietary fibre and, as such, can provide an additional source of fibre to help optimise overall fibre intake.

Can Fruit and Vegetable juices, nectars and drinks count as a part of the daily Fruit and Vegetable intake?

Fruit and Vegetable juices are considered as 1 portion of the daily fruit and vegetable intake, as part of 5-a-day campaigns in a majority of European countries: UK, France, Germany, Sweden, Austria, Finland, Belgium, Poland, Norway, Ireland, Denmark, Norway, Italy, Spain.

Also the World Cancer Research Fund promotes year-round consumption of a variety of vegetables and fruits, translating up to five or more servings of fruit and vegetables daily (or 7% or more total energy).

Fruit juices can make a very positive contribution to help consumers achieve the dietary target of 5 portions of fruit and vegetables a day. Fruit juices count as the primary source of vitamin C in the diet and they are also good sources of folate, potassium and polyphenols

Are Fruit and vegetables juices, nectars and drinks less good for health than whole Fruit and vegetables?

A European study highlighted the fact that 100% fruit and vegetable juices do help reduce risk factors related to certain diseases.

Juices are comparable in their ability to reduce this risk compared to their whole fruit/vegetable counterparts.

The risk reduction is attributed to the effects of both fibre and antioxidants.