

# Keys to promote fruit consumption *in children*



**Fresh juice** within  
the **School Fruit,  
Vegetables and  
Milk Scheme**

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# Fruit consumption in children

## A

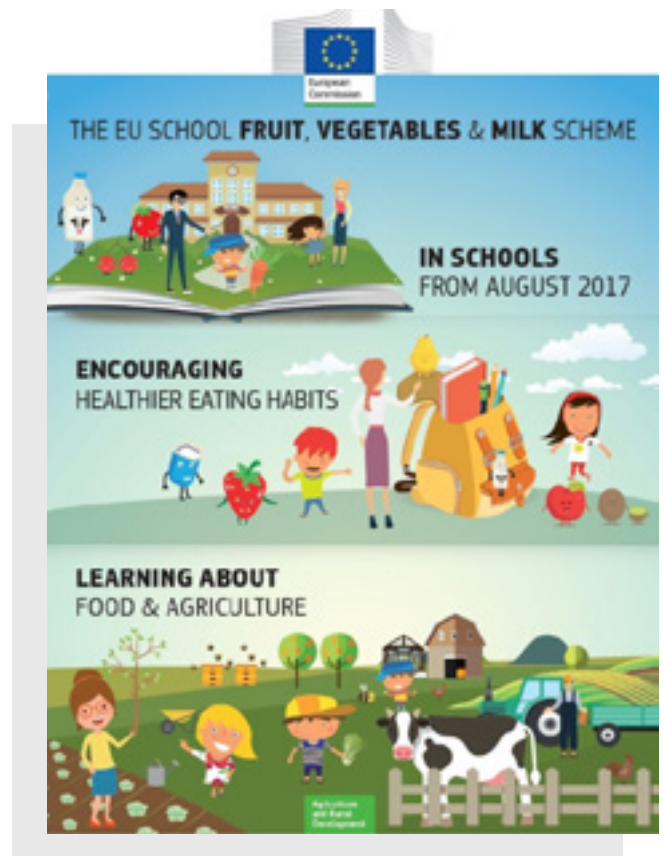
### Data on fruit consumption in children

Fruits and vegetables are a good source of nutrients for children to develop a balanced diet. However, according to the National Health Service, children in the United Kingdom barely reach [three of the five daily pieces of fruit and vegetables recommended by experts](#).

- Specifically, only **16% of children between 5 and 15 years** of age consume 5 or more pieces of fruit and vegetables a day.<sup>1</sup>
- Against this background, and following the recommendations of the WHO, [FAO](#) and other bodies of international reference, the Public Administration is working to promote the consumption of fruit

and vegetables among children, through initiatives carried out in schools across the world.





## B

### Institutional support in the UK

The UK government has developed [The School Fruit and Vegetable Scheme \(SFVS\)](#) whose objective is to provide every child between four and six years old with a piece of fruit and vegetables at school. This equates to 2.3 million children in more than 16,300 schools.

In addition, there are regulations at European level in support of

this action. [Regulation \(EU\) 2016/791](#) of the European Parliament and of the Council, [Regulation \(EU\) 2016/795](#) of the Council, Commission Delegated [Regulation \(EU\) 2017/40](#) and [Implementing Regulation \(EU\) 2017/39](#) of the Commission.

The National Health Service (NHS) supports and encourages the **consumption of fruit juice**. Specifically, they recommend drinking a glass of juice a day (150 ml) along with four other pieces of fruit and vegetables.

“

**Fruits and vegetables** are a good source of nutrients for children to develop a balanced diet. **However, according to the National Health Service, children in the United Kingdom barely reach three of the five daily pieces of fruit and vegetables recommended by experts.**

”





# Orange juice, support for fruit consumption among children





## Benefits of orange juice

### Are vitamins lost in juices?

This is a very common question among parents. The nutrients in the fruit juices come directly from the squeezed fruit. It has been shown that there are no significant differences between the levels of micronutrients such as vitamin A, folate, vitamin C, magnesium, phosphorus, calcium and potassium in the juices, and those of the oranges from which they are derived. Only the fibre levels are

lower in the juice with respect to the whole fruit, since part of it is lost by eliminating the pulp of the juice during the extraction.



12h.

**"In the case of freshly squeezed juice, the nutritional properties remain intact for 12 hours after juicing".<sup>2</sup>**



## A glass of orange juice a day helps meet the recommended amounts of vitamin C in children and adolescents.



An important vitamin that allows the body to better use calcium and other nutrients to form bones, teeth, red blood cells or collagen..



It facilitates the absorption of iron; it reinforces our resistance to infections and acts as an antioxidant. In addition, vitamin C contributes to the metabolism of proteins.<sup>3</sup>



Finally, orange juice also contains other important **nutrients such as folate, potassium (perfect for controlling blood pressure) and phytonutrients.**<sup>4</sup>

*Keep learning:*

**How much  
vitamin C  
does a child  
or adolescent  
need?**

## — Keys to promoting fruit consumption in children



### How to increase fruit consumption among children?

The correct nutrition of children not only favours healthy growth, but also improves their cognitive development. **Many children are reluctant to eat fruits and vegetables. A simple way to supplement their consumption of whole fruit and vegetables is to drink a glass of 100% natural fruit juice a day.**

Scientific studies suggest that this habit can help children get used to the taste of fruit and vegetables, which in the long term can contribute positively to their health.<sup>5</sup>



*You may be  
interested in:*

How to promote fruit and  
vegetable consumption in  
schools: a toolkit

In summary, drinking a glass of fruit juice a day helps to ingest the minimum amount of

*400 grams of  
fruits and vegetables*  
that should be consumed on a daily basis  
according to the WHO.

A **100ml**  
glass of juice  
satisfies the  
recommended daily  
intake of vitamin  
C for children aged  
between 4 and 13.



**70%** of the  
recommended  
daily intake of  
vitamin C for  
adolescents aged  
between 14 and 18.

Around **5%** of  
the minimum  
amount of  
between 1600 and  
2000 kcal per day  
recommended for  
children of school  
age.<sup>6</sup>

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# Comparison table fresh juice versus other drinks and snacks





Nutritional Properties 100ml	Freshly squeezed orange juice	Packaged juice with milk	Sweet bun	Sugary drinks	Chocolate bar	Crisps
<b>Energy</b> (Kcal - kJ/100g)	46 kcal / 193 kJ	38,5 / 159 kJ	354 kcal / 1490 kJ	41,8 kcal / 178 kJ	533 kcal / 2300 kJ ración 45 gr	168 kcal / 702 kJ
<b>Vitamin C</b> (mg/100g)	52,5	9	-	-	0,16	3,04
<b>Sugar</b> (mg/100g)	9,54	11	12,4	10,2	39,9	1,7
<b>Fat</b> (mg/100g)	0,2	0,1	10,9	0,06	36,2	9,6
<b>Fibre</b> (mg/100g)	0,2	0,25	2,53	-	7,3	2,1
<b>Calcium</b> (mg/100g)	10,5	57,4	41,6	1,92	132	26
<b>Sodium</b> (mg/100g)	1,11	11,4	428	6,71	52,1	260
<b>Potassium</b>	200	68,4	142	2	582	390
<b>Cholesterol</b> (mg/100gr)	-	-	106	-	8,54	10,5
<b>Protein</b> (mg/100g)	0,7	0,7	8,52	0,09	7,43	3,2
<b>Carbohydrates</b> (mg/100g)	9,44	11,4	54,2	10,2	45,9	16,2
<b>Iron</b> (mg/100g)	0,08	0,02	1	0,11	3,31	0,49

Source: ANSES (French Agency for Food, Environmental and Occupational Health & Safety) 2012. French Food Composition Table - Tabla Cigual 2012. Available [online](#) [Accessed: 28 June 2018]

*You may be interested in:*

**How to promote fruit and vegetable consumption in schools: a toolkit**



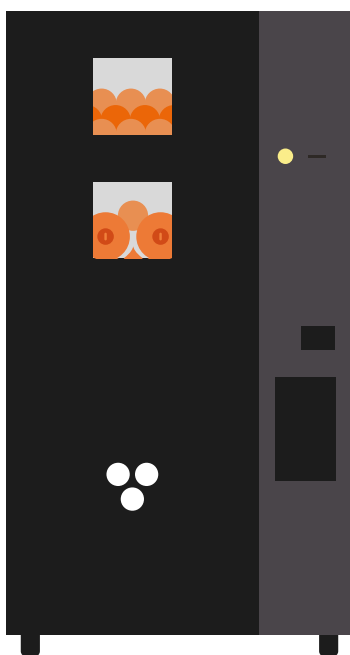
# Zumex makes it easy for you: fresh juice service at break and school lunch time

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Zumex proposes an **in situ juicing** experience with instant serving of fresh juice to children: **an accessible and nutritious pleasure for all.**

Our solutions **bring and facilitate** the consumption of juice and fruit among schoolchildren, with an **innovative technology** which is adapted to suit all needs.





## What does the school needs?

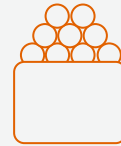
### EQUIPMENT AND FRUIT



Speed  
machine



Vending  
machine



Oranges

### ACCESSORIES



Jugs  
(5-15 units)\*



Eco-Friendly  
disposable cups

### FURNISHINGS



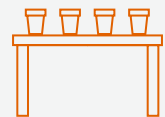
**Waste bin** near the  
machine for the rapid  
removal of waste



**Mobile furniture** for  
baskets of oranges



**Bins** for  
recyclable cups



**Large table** to deposit  
the glasses of freshly  
squeezed juice

### LOCATION



In the **school cafeteria**, in the **playground**, in a **passage area** between the start of classes and the entrance to the playground...

**We'll help you choose!**

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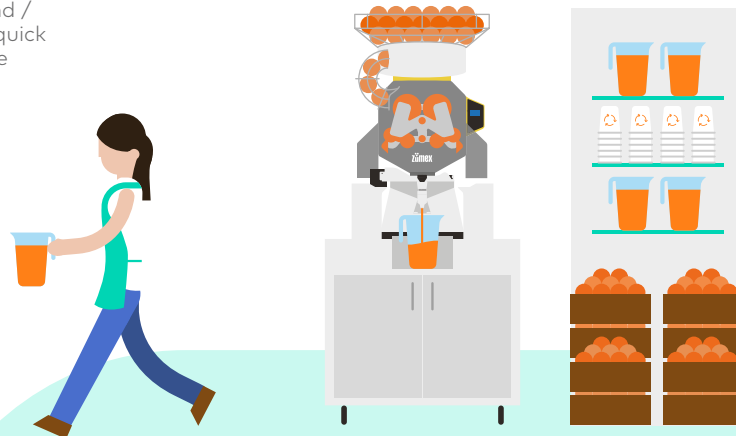
## Communal rooms

Dining room and /  
or rooms with quick  
access from the  
playground

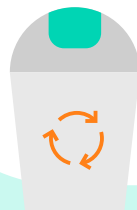
**STAFF**  
2 or 3 people

### JUICE CREATION

**Work area:** Aerated area with the necessary  
furnishings (jugs / oranges / cups)

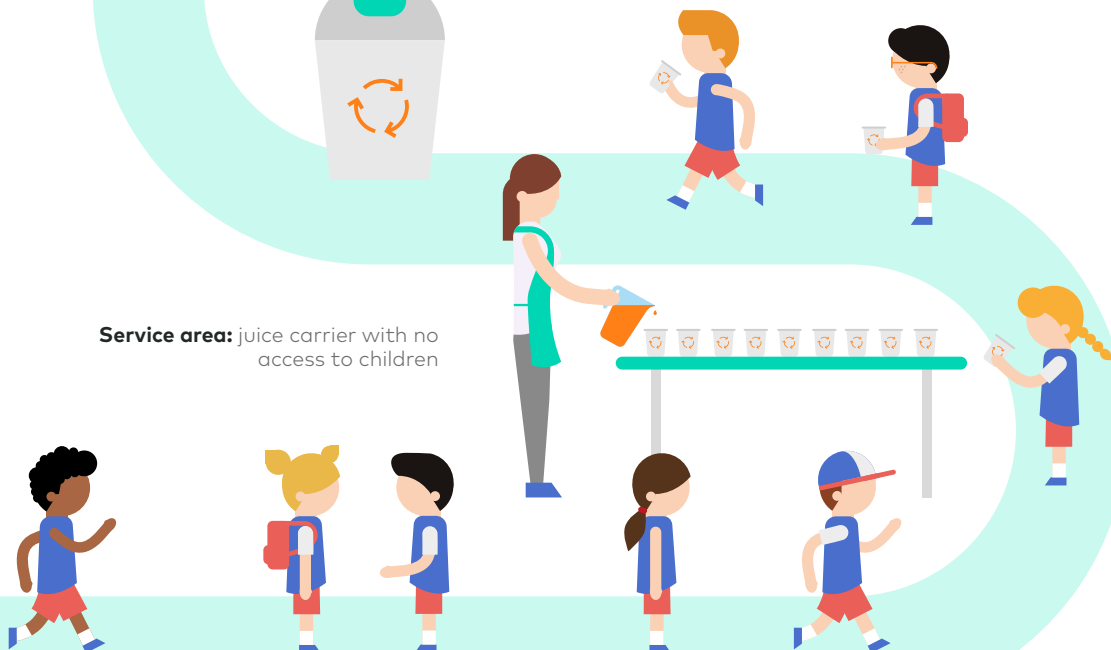


Recycling  
container



### JUICE COLLECTION

**Service area:** juice carrier with no  
access to children



### CHILDREN'S ENTRANCE



**For the correct application  
of the concept, Zumex offers  
guidance on:**



.....

**Staff training** on the  
use and cleaning of the  
machine



.....

**Setup**



.....

**Raw materials:** -  
types of oranges, quality  
of the fruit, seasons, etc.



.....

**Location of the machine**

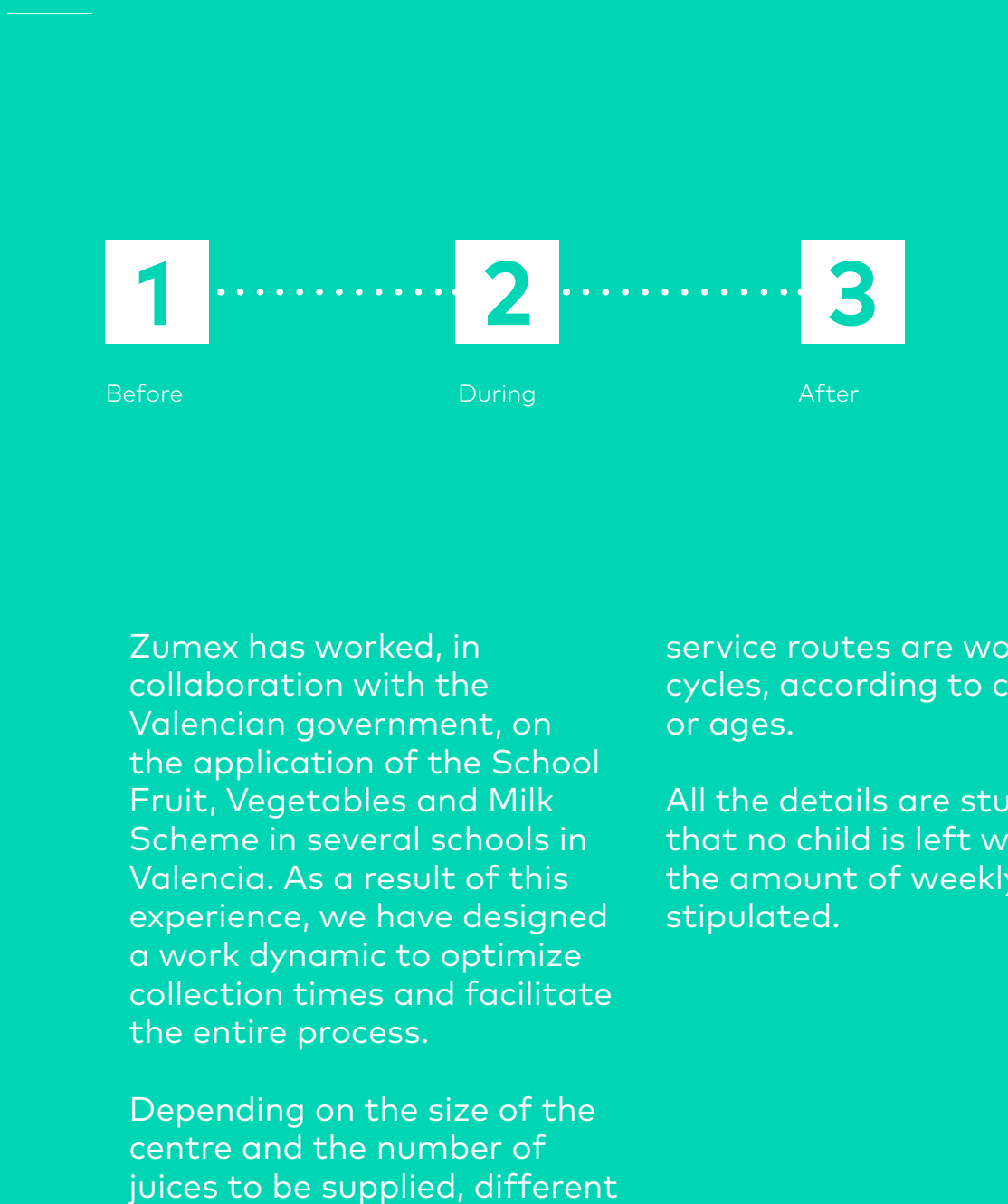


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**Provision of all accessory  
elements**



## \* What is the work dynamic?



# Operative

1

**Before break/the  
lunch period**

Preparation of room, machine, accessories and raw  
material (15-20 minutes before break time)



## 2

### During break /lunch period.

#### **Coordination to squeeze and distribute juice.**

The juicing is done in jars to speed up the process. It is recommended to have moveable furniture to transport baskets of oranges.



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### After break / lunch period

**Removal of waste** and thorough  
sanitisation of the machine.



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**Advantages: What values do  
be bring to children?**



**Habit of  
increasing fruit  
consumption**

.....



**Nutritional  
contribution  
for the child**

.....



**Promotion of a  
healthy diet: local  
and healthier  
products**

.....



**Healthy snack  
concept for  
everyone**

.....



**Juice quality:** small  
amount of pulp  
and with the least  
possible amount of  
essential oils

.....



**Environmental  
impact:** biodegradable  
cups and unprocessed  
snack





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# Our solutions for schools

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### Speed S +plus commercial juicers



[More information](#)

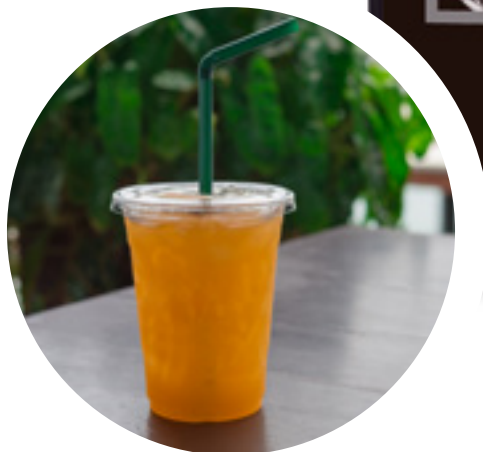


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## Fresh juice vending machine

More information



Do not hesitate to  
consult our **financing  
methods**

# Testimonials and examples

## What our customers say

“

Thanks to Zumex the students of the school have enjoyed freshly squeezed juice at break times. It is a great satisfaction for us to see that children take care of their diet and also enjoy this healthy habit.

”

**Ignacio Clemente,**  
Educational Coordinator EIP S.J Calasanz (Valencia).

“

“The machine juices very well and all the children have been able to drink fresh juice”.

”

**María José Salcedo,**  
Headteacher at Mestalla Primary School, Valencia..





## Examples in schools





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## Other schools and universities that have Zumex solutions across the world



Institut le Rosey, Switzerland



Tufts University, Medford, USA



Cardenal Herrera CEU University, Valencia

## \* Brands which count on Zumex

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Do you want **more information** on our financing options and solutions?

Would you like your children's school to promote a **healthier and more nutritious lunch and meal**?

Contact us

# References

<sup>1</sup> Fruit & Vegetables (2017). Health Survey HSCIC UK. Recovered from: <http://healthsurvey.hscic.gov.uk/data-visualisation/data-visualisation/explore-the-trends/fruit-vegetables.aspx>

<sup>2</sup> Revista Española de Nutrición Humana y Dietética. Vol 18. Nº 2. (2014). RECOMENDACIONES DE MANIPULACIÓN DOMÉSTICA DE FRUTAS Y HORTALIZAS PARA PRESERVAR SU VALOR NUTRITIVO. Pg 107.

<sup>3</sup> AMEDISAN online version ISSN 1029-3019. v.13. IMPORTANCIA DEL CONSUMO DE HIERRO Y VITAMINA C PARA LA PREVENCIÓN DE ANEMIA FERROPÉNICA. Available at: [http://scielo.sld.cu/scielo.php?pid=S1029-3019200900006000014&script=sci\\_arttext&lng=pt](http://scielo.sld.cu/scielo.php?pid=S1029-3019200900006000014&script=sci_arttext&lng=pt)

<sup>4</sup> LIST OF PERMITTED HEALTH CLAIMS MADE ON FOODS, OTHER THAN THOSE REFERRING TO THE REDUCTION OF DISEASE RISK AND TO CHILDREN'S DEVELOPMENT AND HEALTH. Official Journal of the European Union. COMMISSION REGULATION (EU) No 432/2012 of 16 May 2012. Pg 32-34 Available through: <https://eur-lex.europa.eu/legal-content/EN/TX/?PDF/?uri=CELEX:32012R0432&from=EN>

<sup>5</sup> CREDOC. Comportements et consommation alimentaire en France 2010. Enquête CCAF 2010.

<sup>6</sup> FAO. NUTRITIONAL NEEDS OF HUMANS. Available through: [www.fao.org/docrep/014/am401s/am401s03.pdf](http://www.fao.org/docrep/014/am401s/am401s03.pdf)

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