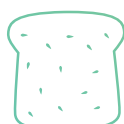




FoodService
EUROPE



MODEL SCHOOL FOOD STANDARD



ABOUT THIS STANDARD

This standard was developed by FoodServiceEurope as guidance for contracting authorities and contract catering operators involved in the provision of food in schools in the EU. Through this Model School Food Standard, FoodServiceEurope aims to contribute to improving the quality of food in schools and the ability of European children to learn and maintain healthy dietary practices.

As obesity and malnutrition are a global concern, contract caterers are aware that children represent the future and the sector is willing to play its part in ensuring children's healthy growth and development. While many factors contribute to increasing levels of childhood obesity in Europe, FoodServiceEurope recognizes the importance of promoting healthier environments in schools and is committed to supporting EU Member States in their endeavors, as laid down in the EU Action Plan on Childhood Obesity 2014-2020.

FoodServiceEurope commits to engaging with relevant partners for the dissemination of the School Food Standard for the Contract Catering sector. It will carry out follow-up actions for implementation at national level through its national associations and member companies.

CONTENTS

Introduction	3
<hr/>	
School lunches: Food-based standards	5
<hr/>	
Recommended frequencies of different food groups.....	5
Additional requirements per food groups	6
Portion sizes	7
School lunches: Nutrient-based standards	9
<hr/>	
Energy intake	9
Fat intake.....	10
Sugar intake.....	10
Sodium intake	10
Calcium intake.....	11
Food provided outside lunch	12
<hr/>	
Food provided for breakfast.....	12
Food provided outside the three main meals.....	12
Promotion of healthier school environments	14
<hr/>	



INTRODUCTION

FoodServiceEurope's EU School Food Standard is intended to help contracting authorities and contract catering operators to provide pupils and students in both private and public schools with a healthy, balanced food offering and to support the development of healthy eating habits among children and adolescents aged 3 to 18.

As the development of dietary and physical activity habits occurs during the early stages of life, the school setting is a particularly important target for intervention. School interventions towards healthier eating habits will usually need the engagement of the public authorities that oversee school policy, the school administration, the food service provider and ideally also families. Cooperation between the various actors involved is decisive to ensure a successful intervention.

Contract catering operators usually use the facilities and the equipment made available by the school and therefore do not always control the environment in which the pupils consume food. As a result, some recommendations are addressed to the school authorities. A cooperative approach between the responsible authorities, the school and the service provider is recommended to ensure that all parties involved work towards the common objective of improving eating habits.

The potential financial cost of improving school food provisions should also be considered. Although cost considerations are outside the scope of this document, it is important to note as a preliminary remark that the price that will be paid for a school meal will necessarily impact the choices that can be offered.

Contract catering operators should not bear alone the additional costs that may derive from school interventions seeking to address public health concerns. Public authorities and schools can actively engage in improving food service to pupils by making available adequate financial resources and facilities to service providers.

The standard covers all food and drinks provided by the school during and outside lunchtime. However, it is less prescriptive than some national standards, as any European standard in this area needs to be adaptable to local food cultures. The standard includes both food-based and nutrient-based recommendations for the main age groups represented in school settings in Europe.

These recommendations were developed taking into account mandatory regulations or voluntary guidance on school food at national or local level. They are not meant to replace existing guidelines but to provide a European reference standard and supplement existing guidance wherever useful.

In line with the most fundamental principle of a healthy diet, variety is at the core of this standard. For children to enjoy a balanced diet, but also to help with the development of their palate and appreciation for different types of foods, it is important to provide a wide range of foods across the week, offering diversity in fruit, vegetables, grains, starch, meat, fish and dairy products served.

In addition to food-based guidance, i.e. recommendations for the variety of foods to be provided and related frequency, the standard provides nutrient-based recommendations, to ensure that the foods provided are of high nutritional quality and that the composition of school meals with these foods contributes to nutritional balance.

In addition, schools should make reasonable adjustments for pupils with particular requirements, for example to reflect medical, dietary and cultural needs.

Children's food choices are not only guided by the food available but also by several additional factors. This is why the school environment is extremely important. Indeed, school meals are not only a source of nutrition, but also a means to educate children about the importance of a balanced diet, the adoption of appropriate food behaviour, as well as culinary traditions.

Existing school food guidelines do not always reflect the importance of this social role of school food provision. This standard therefore includes guidelines for structuring a school environment that is conducive to healthy eating.

Packed lunches brought by the pupil from home are outside the scope of this standard. Nevertheless, some of the recommendations enclosed in this document could be useful for parents/guardians. Schools are encouraged to circulate a shortened version with relevant recommendations to parents/guardians who pack lunches.



SCHOOL LUNCHES: FOOD-BASED STANDARDS

Schools should use menu cycles which are revised with sufficient frequency. Menu cycles should be based on a three to four week rotation (15 to 20 school days) to avoid repetition and should be revised periodically, ideally every three months. The menu plan should be communicated ahead to parents by the school or the contract catering company.

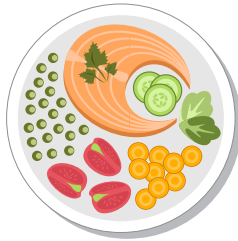


Since not all schools have the appropriate facilities, there is no requirement that lunches must be warm meals. Warm lunches should be provided wherever possible to ensure that all pupils are able to eat at least one hot meal every day. In schools where a warm meal cannot be served every day, a balanced cold meal that meets the requirements outlined below should be proposed.

The food-based standards provided in this policy aim to provide guidance to ensure balanced menus throughout the week. The standards provide recommended frequencies, additional food group requirements and portion sizes, which should all be taken into account.

Recommended Frequencies of Different Food Groups

The frequency of consumption of different foods can be very different from one country to another based on national dietary habits. The table below provides minimum and maximum frequencies of the different food groups while allowing for cultural adjustments.

LUNCH: Recommended frequencies of different food groups (Monday to Friday)

	FOOD GROUPS	MINIMUM WEEKLY FREQUENCY	MAXIMUM WEEKLY FREQUENCY
 MAIN DISH	Meat (preferably lean meat or poultry)	1	3
	Fish (incl. oily fish at least once every 3 weeks)	1	3
	Pulses (e.g. beans, legumes, lentils)	1	3 (5 for vegetarian option)
	Eggs (e.g. omelette)	1	2
	Deep fried foods (e.g. fish, chicken, cheese, onion rings)	No recommended minimum frequency	1
	Starchy food (rice, pasta, preferably wholegrain, jacket potato, puree)	1	3
 SIDE DISH and/or STARTER	Cooked and raw vegetables (excl. potatoes), soups with >50% of vegetables per portion	8-10 portions (ideally at least 2/meal) ¹	No recommended max frequency
	Starchy food (rice, pasta, boiled potatoes, preferably wholegrain)	2	4
	Starchy food cooked in oil (e.g. chips, deep-fried potatoes)	No recommended min frequency	1
 DESSERT	Seasonal and fresh fruit	4	No recommended max frequency
	Dairy-based desserts (≥50% milk, preferably unsweetened yoghurt or fresh cheese)	1	5
	Sweet treats (cake, pudding, biscuit, ice-cream, etc.)	No recommended min frequency	1

¹ Eg. One soup as starter and one cooked vegetable as side dish, no starter and two vegetables portions as side dish, two raw vegetables portions as starter and no vegetable as side dish, etc.

Additional Requirements per Food Groups

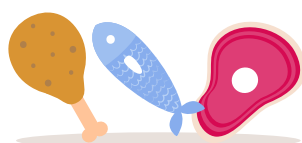


FRUIT AND VEGETABLES

At least one portion of fruit and two portions of vegetables or salad should be provided per day per child. A wide variety of fruit and vegetables should be served over the week, e.g. providing different colours and types of fruit and vegetables, where possible factoring in seasonality at local level.

Fruit salads or fruit sauces should be served unsweetened.

Soups constitute one portion of vegetables and should have a content of at least 50% vegetables (excluding potatoes) measured by weight of the raw ingredients.



MEAT, FISH, EGGS AND OTHER NON-DAIRY SOURCES OF PROTEIN

A portion of food from this group should be provided on a daily basis. Fish should be provided at least once a week. Oily fish (e.g. salmon, tuna, sardines, pilchards, herring and mackerel) should be provided at least once every three weeks either as starter or main dish.

Processed meat products should be served no more than once per week in primary schools and twice per week in secondary schools. Lean low-fat cuts should be selected and all visible fat removed.

Iron-rich sources of protein such as eggs, beans, pulses, and soya products should be provided at least twice a week as a protein option and should – upon explicit request made to the school at the beginning of the year – always be available as an alternative to fish and meat for vegetarians. Attention should be paid that vegetarian options meet children's needs in iron and Vitamin B2.

Deep-fried foods such as battered and breaded products should not be served more than once a week.



STARCHY FOOD

A variety of starchy food types should be served as a side-dish or starter across the week (for example, potatoes and other starchy root vegetables, pasta, rice and other grains). While starchy food should be served with every meal, it should be limited to one portion (excluding bread which can be available on a daily basis) per meal (either as side-dish or as starter).

Starchy foods that are fried or baked in fat or oil (for example chips, fried rice) should not be available more than once per week.



BREAD

Bread – ideally brown or wholemeal – should be available on a daily basis as an accompaniment. It should be served without the addition of fats or spreads, except in countries where this practice is part of the local food culture.

In those countries, healthier spreads with reduced salt content and (saturated) fats should be preferred. The energy provided by the spread should be taken into account when calculating the overall energy content of the meal.



DAIRY PRODUCTS

Dairy products are a good source of calcium for children in Europe. Based on the assumption that a portion of dairy products provides 80mg of calcium, one or two portions of dairy products should be provided in schools daily to ensure that children meet the daily recommended calcium intake. This can be achieved by serving cheese or yoghurt as part of the starter, main meal or as dessert.

Fresh cheese (fromage blanc, ricotta, quark, curd, etc.) and yoghurt served as dairy-based desserts should preferably be unsweetened. Dairy-based desserts should contain a minimum of 50% of milk or would otherwise be considered as sweet treats. Whole-milk and semi skimmed options should be preferred and served without the addition of cream to limit fat intake.



SWEET TREATS

Cakes, puddings, biscuits and ice-creams as dessert may be served maximum once a week. Healthier options with reduced sugar and reduced (saturated) fats should be served.



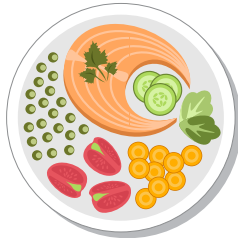


BEVERAGES

Beverages served during lunchtime should be limited to water. 100% fruit/vegetable juice with no added sugar (can be diluted), milk and plant-based milk alternatives should only be served outside lunch break, unless milk is the only source of calcium provided to children.

Portion Sizes

Portions should be age-appropriate and a guide for primary schools would be to serve at least half an adult portion at the beginning of primary and move towards a full adult portion toward the end of primary. More specific recommendations are included in the table below which provides an indication of recommended portion sizes per food groups, following a meal structure, distinguishing between primary and secondary schools. The below recommendations are based on existing standards at national level, seeking to find common ground.

LUNCH: Recommended portion sizes per food groups

	FOOD GROUPS	FOOD GROUPS NURSERY/PRIMARY SCHOOLS (3-11)	SECONDARY SCHOOLS (12-18)
BEVERAGE			
Only plain water should be provided during lunchtime			
 <p>MAIN DISH</p>	Mince meat (raw)	30-90g (1 small plate)	110-120g (1 medium size plate)
	Other meat (raw)	50-90g	90-120g
	Fish (raw)	50-120g	100-160g
	Pulses (cooked)	30-60g (2-4tbsp)	60-90g (4-6tbsp)
	Eggs	1-2	2
	Deep fried food	50-70g	120-160g
	Starchy foods and grains²		
	Potatoes (main dish, raw)	150-200g (1 small potato)	200-250g (1 medium-sized potato)
	Rice, pasta (main dish, dried)	50-60 g (1 small dish)	60-90g (1 medium/large dish)
	Other grains (couscous, bulgur wheat, maize, cornmeal) (dried)	40-60g	60-70g
Cured and Cold meat	25-30g	25-30g	
Cheese	16-30g (1 thin slice/1 portion)	30-60g (2 thin slices/portions)	
 <p>SIDE DISH and/or STARTER</p>	Cooked vegetables (excluding potatoes)	40-100g (1 small plate)	100-150g (1 medium plate)
	Soups (excluding potatoes)	150-200ml	200-250ml
	Uncooked vegetables	½ dessert bowl (40-80g)	1 dessert bowl (80-100g)
	Starchy food		
	Potatoes (raw)	60-80g	80-100g
	Rice, pasta (dried)	20-25g	25-40g
Pulses (lentils, kidney beans, chick peas) (dried)	15-30g (1-2tbs)	30g (2tbs)	
 <p>DESSERT</p>	Fresh cheese	60g	60-100g
	Yoghurt	80-125g	125-150g
	Fresh fruit	40-100g (1 small to 1 medium piece of fruit)	100-150g (1 medium-sized fruit/ 1 piece of fruit)
	Fruit salad	65-100g (2-3 tbsp)	100-130g (3-4tbsp)
	Dried fruit	15-30g (½ - 1 tbsp)	25-30g (1-2tbsp)
	Ice cream	60-80g	80-100g
	Cake and biscuits	25-50g	50-60g

² Served as main dish (e.g. lasagna, shepherd's pie, hachis parmentier, baked potato)

SCHOOL LUNCHES: NUTRIENT-BASED STANDARDS

Food intake during the day is usually divided across: breakfast, lunch, evening meal and food consumed between meals (snacks). As a wider range of foods is customarily consumed at lunch and dinner compared to breakfast, these are conventionally assigned a greater proportion of intake: 20% of daily energy intake at breakfast; 30-40% for lunch; 30% for dinner; and 10-20% for snacks³.

Energy Intake

Quantitative energy guidelines for children are not available in all EU countries. For those countries where no national nutrient intake recommendations are available, the European Food Safety Authority (EFSA)'s average requirements for energy for children and adolescents⁴ can be a useful reference when conceiving a menu plan.

The EFSA's opinion on Energy values provides estimated daily energy levels for children with moderate Physical Activity Level (PAL) 1.6 (except for children aged 2 and 3 where PAL 1.4 was used).

Recommended school lunch energy intake for boys and girls aged 2 to 17 years old

Age	Kcal/day (PAL 1.6)	Kcal/lunch (roughly 30%-40%)	Age	Kcal/day	Kcal/lunch (roughly 30%-40%)
2	Boys: 1028 Girls: 946	308-411 284-378	10	Boys: 1933 Girls: 1818	580-773 545-727
3	Boys: 1174 Girls: 1096	352-470 329-438	11	Boys: 2043 Girls: 1908	613-817 572-763
4	Boys: 1436 Girls: 1335	431-574 400-534	12	Boys: 2174 Girls: 2004	652-870 601-802
5	Boys: 1522 Girls: 1417	457-609 425-567	13	Boys: 2333 Girls: 2099	700-933 630-840
6	Boys: 1610 Girls: 1500	483-644 450-600	14	Boys: 2513 Girls: 2175	754-1005 652-870
7	Boys: 1711 Girls: 1591	513-684 477-636	15	Boys: 2699 Girls: 2228	810-1080 668-891
8	Boys: 1819 Girls: 1688	546-728 506-675	16	Boys: 2845 Girls: 2259	853-1138 678-904
9	Boys: 1925 Girls: 1790	577-770 537-716	17	Boys: 2940 Girls: 2277	882-1176 683-911

³ UK Food Standard Agency (2007) FSA nutrient and food based guidelines for UK institutions, available at: <https://www.food.gov.uk/sites/default/files/multimedia/pdfs/nutrientinstitution.pdf>

⁴ EFSA (2013) Scientific Opinion on Dietary Reference Values for energy, available at: https://www.efsa.europa.eu/sites/default/files/scientific_output/files/main_documents/3005.pdf

FAT INTAKE

Reducing fat intake helps limit energy intake and the risk of obesity and associated diseases, including diabetes and cardiovascular diseases. Fat intake should be limited to not more than 30% to 35% of daily energy intake, and most saturated fats should be replaced with unsaturated options. To help meet this objective, cooking fats used in school catering should be reduced and adequately chosen⁵.

Oils rich in mono or polyunsaturated (e.g. olive, rapeseed (canola), safflower, sunflower, corn, soya, walnut, linseed, sesame seed and nut oils) fats or vegetable-based spreads should be used wherever possible.

Products containing industrial trans-fatty acids should not be available in schools.

SUGAR INTAKE

Frequent consumption of food and drink containing sugar increases the risk of tooth decay and obesity. Added sugar intake should be limited to 5 to 10% of daily energy intake (roughly 25 to 50 grams). To help meet this objective added sugar use in school catering should be avoided and limited wherever possible, nonetheless bearing in mind the need for palatability.

As per WHO Guidelines⁶, sugars naturally present in fruit, vegetables and milk are excluded from this recommendation.

SODIUM INTAKE

WHO recommends a reduction in sodium intake to control blood pressure, including in children aged 2 to 15 years old. The recommended maximum level of intake of 5g/day salt in adults should be adjusted downward based on the energy requirements of children relative to those of adults⁷. In line with WHO Europe recommendations⁸, total daily salt intake should be limited to 2 grams for 1–3 year olds, 3 grams for 4–6 year olds and 5 grams for 7-18.

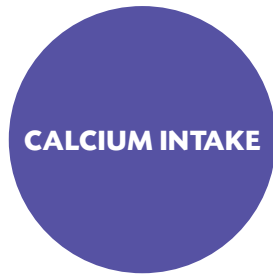
To help meet this objective the amount of salt used in cooking should be limited and replaced wherever possible with other flavourings such as garlic, lemon juice, herbs and spices.

5 WHO Europe (2006) Food and nutrition policy for school, A tool for the development of school nutrition programmes in the European Region, available at: http://www.euro.who.int/_data/assets/pdf_file/0019/152218/E89501.pdf

6 WHO (2015) Sugars intake for adults and children Guideline, available at: http://www.who.int/nutrition/publications/guidelines/sugars_intake/en/

7 WHO (2012) Guideline: Sodium intake for adults and children, available at: http://apps.who.int/iris/bitstream/10665/77985/1/9789241504836_eng.pdf?ua=1&ua=1

8 WHO Europe (2006), op.cit



Calcium is essential for the integrity and the mineralization of bones and teeth. An adequate supply is vital during skeletal growth to ensure optimum bone mass. Recommended intakes of calcium to meet requirements for normal growth and development of bone in children and adolescents have been established.

In 2015, EFSA concluded that the dietary requirements for calcium for children were the following:

Estimates used in the factorial approach to calculate dietary requirements for calcium for children

Age	Dietary requirement (mg/day) ⁹
1-3	388
4-6	681
7-10	672
11-14	944
15-17	965

The main dietary sources of calcium in EU countries differ, although dairy products are generally the most important food group. To meet those calcium needs, the consumption of rich food sources of calcium is recommended. Those include dairy products, dark green vegetables, legumes, nuts and calcium-fortified foods.

⁹ EFSA (2015), Scientific Opinion on Dietary Reference Values for calcium, p.38, available at: <https://www.efsa.europa.eu/sites/default/files/consultation/150114,0.pdf>

FOOD PROVIDED OUTSIDE LUNCH

Food Provided for Breakfast

- ★ While many schools offer one meal, usually lunch, the importance of **breakfast** needs to be stressed as providing breakfast in schools may contribute to a balanced diet. It has also been linked to improved concentration among pupils. Breakfast can be provided to those children able and willing to be at school before class starts and who did not have a full breakfast at home.
- ★ In those countries where breakfast is served in schools, the recommended 20% of daily energy intake can be used as reference value to plan the content of the meals served. Supporting the creation of Breakfast Clubs in collaboration with the school, teachers and students may be a positive way to ensure children have access to wholesome breakfast choices at a reasonable cost.

Food Provided Outside the Three Main Meals

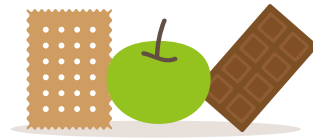
The energy intake provided by food eaten outside the three main meals should not be greater than 10 to 20% of children's daily energy intake. Local food culture and snacking frequency habits should be taken into account when deciding which snacks and which portion sizes are appropriate.



BEVERAGES

- ★ **Drinking water** should be provided free of charge at all times on school premises.
- ★ **Other beverages:** plain milk or unsweetened plant-based alternatives, unsweetened 100% fruit and vegetable juices can be distributed in primary schools outside lunch. Chocolate-flavoured milk can be provided occasionally as long as it contains less than 5% added sugars. In secondary schools, lower fat milk should be available. An indication of portion sizes for these beverages is provided below.
- ★ In addition, in countries where serving tea and coffee to older students is acceptable, unsweetened tea and coffee can be distributed in secondary schools, while caffeine intake should be limited as much as possible. Soft drinks should not be made available in primary schools. In secondary schools only low calorie soft drinks should be made available.

Beverage	Nursery/Primary schools (3-11)	Secondary schools (12-18)
Milk	150-200ml (1/2 glass or 1 small glass)	200-250ml (1 large glass)
Juice/chocolate-flavoured milk	100-150ml	150ml



SNACKS

- ★ In addition to portions of fruit and vegetables at lunchtime, **fruit and/or vegetables** should be the most prominent snack option available and should be on display at every break in all school food outlets.
- ★ Schools should **define the right amount of fruit and vegetables to be provided by the contract caterer**, taking into account the food supplied by other actors (such as food provided as part of regional/national/EU subsidised programmes such as the EU School Fruit, Vegetables and Milk Schemes), in order to avoid food waste. This assessment should be done based on the number of pupils/students and revised taking into account the amount of food consumed.
- ★ **Bread and spread:** In some countries, bread with spread (jam, chocolate spread, etc.) is often served as a snack. The full energy content of the snack (bread + spread) must be taken into account when calculating how the snack fits into the child's daily diet.
- ★ **Sweet snacks:** Where schools offer or sell biscuits, cakes and pastries, those should be low in fat, saturated fat, and sugar. Confectionery should not be available in primary schools. Nutrient-rich options (i.e. sweet snacks with fibre, vitamins and minerals) should be preferred.
- ★ **Savoury snacks:** In primary schools, nuts, seeds, fruit or vegetables without added fat, salt, sugar or honey can be provided as snacks. Savoury crackers or breadsticks may be offered provided they are served with fruit or vegetables or a dairy food. In secondary schools, healthier options should be promoted through lower price or more access points.
- ★ An indication of adequate portion sizes for sweet and savoury snacks is provided in the table below.

Sweet & Savoury Snacks	Nursery/Primary schools (3-11)	Secondary schools (12-18)
Cakes, tray bakes, muffins, scones	30-50g	50-60g
Biscuits and flapjacks	20-30g	30-40g
Nuts, almonds seeds, dried fruit or vegetables with no added sugar, salt or fat	20g	30g
Chocolate and chocolate-coated products	15-20g	25-30g
Cereal bars	20-30g	30-40g

PROMOTION OF HEALTHIER SCHOOL ENVIRONMENTS

Attention should be paid to the **presentation of the food**: originality in the presentation of dishes, as well as a combination of vegetables of different colours and textures will make the meals more appealing.



Additional recommendations to promote a healthier school environment are provided below. Since contract catering operators are usually using the facilities and the equipment made available by the schools, the following recommendations are primarily addressed to the school authorities.

Healthier School Checklist

- ✓ **Vending machines** should not be installed in areas accessible by primary school pupils. In secondary schools, vending machines should be unbranded and should only contain reduced sugar and fat options.

- ✓ Educators, food business operators and caterers should be given specific **training on healthy diets**. School menus should be developed in collaboration with health professionals with training in nutrition.

- ✓ **Enough qualified staff** should be contracted to care for and supervise pupils, ensure an organised and pleasant canteen environment, depending on the number and the age of pupils to supervise.

- ✓ Beyond lunchtime, **children should be taught about food and nutrition** to enable them to make nutritious choices. The organisation of cooking workshops within the school with pupils and teachers should also be encouraged.

- ✓ **Healthier food choices** should always be presented in an appealing and accessible way.

- ✓ **Dining spaces and facilities** should encourage healthy eating:
 - ✓ The place where children eat should be neat and always provide full cutlery and napkins.
 - ✓ It should be a relaxing environment without noise pollution (loud volumes, echo effect, etc.) where pupils can quietly communicate.
 - ✓ It should be exposed to as much natural light as possible.
 - ✓ The room temperature should be pleasant all year long (neither too cold nor too warm).
 - ✓ Ventilation (natural or artificial) should provide adequate air renewal per volume and person capacity. Strong smells from prepared meals, cleaning products, etc. should be avoided.
 - ✓ Pupils should be given enough space to enjoy their meal comfortably.
 - ✓ They should be given at least 30 minutes to seat and eat their lunch followed by at least 15 to 30 minutes of play. This duration can be increased if it is deemed necessary for younger age groups and for pupils with special needs.

- ✓ **Table salt** should not be available and salt should not be made available to pupils/students in individual sachets.

- ✓ **Condiments** (tomato ketchup, mustard, brown sauce, salad cream, relishes) should only be provided from the service counter and should be controlled by the canteen staff.

- ✓ Canteen facilities, vending machines, shops and after school clubs should give consistent **messages about healthy eating, oral health and physical activity**.

This document was adopted by FoodServiceEurope members during their General Assembly in Vienna on 19 May 2017.



info@foodserviceeurope.org

www.foodserviceeurope.org

