Rhode Island Nutrition Guidelines for School Vending & A La Carte Foods

Officially endorsed by the 105 member organizations of the RI Healthy Schools Coalition

August 2010

Introduction

Competitive school foods are found in schools stores, vending machines, as part of school fundraisers, at school sponsored activities and sporting events and on the a la carte line in the school cafeteria. Often competitive school food offerings have little nutritional value, are high in fat and sugar, and take the place of the more nutritionally balanced meals that are offered to students through the Federal School Meals Program.

In 2006 and 2007, the RI General Assembly passed legislation requiring that only healthier beverages and snacks be sold and/or distributed in RI schools. The 2006 Law defines the healthier beverages and snacks and requires that elementary, middle and junior high schools sell and/or distribute only healthier beverages and snacks by January 1, 2008. The 2007 Law amends the 2006 law to add high schools and requires that high schools sell and/or distribute only healthier beverages and snacks, as defined by the 2006 law, by January 1, 2008**.**

The 2006 Law can be found @ http://www.rilin.state.ri.us/PublicLaws/law06/law06231.htm
The 2007 Law can be found @ http://www.rilin.state.ri.us/PublicLaws/law07/law07080.htm

The primary purpose of this document is to help RI district wellness sub-committees develop and/or adopt a comprehensive set of nutrition guidelines for competitive foods in schools that is in compliance with the new RI State Law. These RI Nutrition Guidelines for School Vending and A la Carte Foods, developed and maintained by the RI Healthy Schools Coalition, are more comprehensive than the nutrition criteria in the State Law and include supporting rationale as well as product examples. These will be helpful for your district's or school's implementation of the Law.

A companion RI Approved Product List is updated monthly and is available on the RI Department of Health and RI Department of Education thrive website @ **www.thriveri.org .**

We have found that this document and the companion RI Approved Product List are helpful to childcare centers, colleges and universities, worksites, hospitals, senior centers, long term care facilities and others interested in improving the nutritional value of the foods available to the children or adults in their care and/or their employees. These documents have also been helpful to food manufacturers who are reformulating their products and distributors who would like to improve the nutritional value of their product lines for their more nutrition-conscious customers.

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Guiding Principals

The RI Nutrition Guidelines for School Vending & A La Carte Foods are based on a food-group focused approach that encourages snack foods and beverages that are whole food, real food and thus contain naturally occurring nutrients and micro nutrients.

These Guidelines encourage the offering of foods of maximal nutrient density (nutrient-rich foods.) Foods that are of maximal nutrient density (nutrient-rich) will be lean sources of protein and/or complex carbohydrates and low in total fat and saturated fat, as opposed to foods that are nutrient void and only calorie dense, from added sugars, fats, and highly processed flour/carbohydrates. Furthermore, foods of maximal nutrient density (nutrient-rich) will contain 10% or more of at least one of the following: calcium, vitamin C, vitamin A, iron or fiber.

These Guidelines do not support the addition of artificial sweeteners and sugar alcohols to foods and beverages to be consumed by the general population of school children while in school.

These Guidelines promote the consumption of needed nutrients through naturally nutrient-dense (nutrient-rich) healthy food and beverage choices, not through fortified products that would otherwise have little nutritional value. Significantly fortified items are not approved by these Guidelines for use in schools unless they are naturally nutrient-dense (nutrient-rich) products that are fortified with nutrients at levels based on scientifically documented health needs, such as milk fortified with vitamins A & D, breakfast cereals fortified with iron or grain products fortified with folic acid. Foods and beverages that are not naturally nutrient-dense (nutrient-rich) but are over fortified could possibly lead to nutrient excess with toxic effects if students are consuming too much of a product, such as, fortified sport drinks or energy drinks, or consuming multiple sources of different fortified products. Currently, there is no scientifically documented need or recommendations for children to have the additional fortification of nutrients through these types of products.

Rhode Island Nutrition Guidelines for School Vending & A La Carte Foods

Food Category	Recommendation	Rationale	Food Suggestions
Grains Vending/ A La Carte Portion Size Bagels, muffins, cereal bars, baked chips, crackers, popcorn = 2 oz. or less	▪ Total Fat – not more than 30% of calories from fat ▪ Saturated Fats & Trans Fats – not more than 10% of total calories from saturated fat and 0 grams of trans fat ▪ Sugars – 7 grams or less per ounce ▪ Whole grain and multi-grain products with a minimum of 1 gram of fiber per serving are encouraged ▪ ***Artificial sweeteners, non-nutritive sweeteners and added sugar alcohols are not allowed.***	▪ The 2005 Dietary Guidelines for Americans encourage consumption of a variety of grains daily, at least half of which are whole grains. A whole grain food is one with *whole* grain listed as the *primary* grain ingredient. Not all multi-grain products are 100% whole grain. ▪ Trans fats raise total blood cholesterol and LDL cholesterol, similar to saturated fats. ▪ The goal is to provide grain products that are as close as possible to natural and that are nutrient-dense (nutrient-rich.)	▪ Whole grain muffins ▪ Multi-grain bagels ▪ Baked tortilla, soy, pita and corn chips ▪ Rice cakes ▪ Pretzels ▪ Animal crackers ▪ Air-popped or low-fat popcorn ▪ Low-fat whole grain crackers ▪ Low-fat granola and granola bars ▪ Low sugar cereals ▪ Oatmeal
Vegetables & Fruits **Vending/ A La Carte Portion Size** Dried fruits = 1.5 oz or less Fresh, frozen, canned fruits/vegetables = 1cup/ 8 oz. or less Fruit & vegetable juice = 12 oz. or less Water carbonated and non-carbonated/ flavored or sweetened with 100 % fruit juice and no added sugar/sweeteners = 12oz.or less	▪ Whole fresh vegetables and fruits ▪ 100% Dried fruits with no added sugar. Dried Cherries, Blueberries and Pineapple use a small amount of sugar in processing for appearance; however, they are still acceptable as a dried fruit choice. ▪ Canned and frozen fruits in natural juice or water pack with no added sugars ▪ 100% vegetable or fruit juice ▪ Vegetable and/or fruit salad with no more than 250 calories including produce, dressing, and toppings. Salad dressing limited to 1oz. per 1 ½ cups of salad. ▪ Use locally grown produce whenever possible. ▪ Baked vegetable chips follow the guidelines for grains ▪ ***Artificial sweeteners, non-nutritive sweeteners and added sugar alcohols are not allowed.***	▪ The 2005 Dietary Guidelines for Americans encourage consumption of a variety of vegetables and fruits daily – current recommendations are 5 – 9 one-half cup (1/2 c.) servings per day. ▪ As suggested by the Dietary Guidelines and the CDC's Fruits & Veggies More Matters, fruits and vegetables provide essential vitamins and minerals, fiber and other substances that may protect against many chronic diseases. ▪ The consumption of whole vegetables and fruits is encouraged to increase fiber consumption and to prevent the over consumption of juices. ▪ Exception: Dried cherries, blueberries and pineapples use a minimal amount of sugar for appearance.	▪ 100% vegetable or fruit juice ▪ Whole and cut fresh fruits ▪ Celery or carrot and other vegetables ▪ Fruit bowls ▪ Unsweetened applesauce ▪ Canned fruits in natural juice ▪ Raisins ▪ Dried Apricots ▪ Salsa ▪ Baked potato chips ▪ Baked sweet potato chips ▪ Potato crisps

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Food Category	Recommendation	Rationale	Food Suggestions
Dairy Products Vending/ A La Carte Portion Size Yogurt – 8 oz. or less Milk – 12 oz. or less Cheese – 1.5 oz. or less Frozen Dessert/ Pudding – 4 oz. or less	▪ Low-fat (1%) or non-fat dairy products ▪ 8-12 oz. serving size of milk, ideally in plastic, re-sealable containers ▪ Cheese – 100% Real cheese: reduced or low-fat varieties ▪ Milk – 32 grams or less of total sugar per 8 oz. serving or 4 grams per ounce for skim and 1% flavored milk (total sugar includes added sugar and natural milk sugar, lactose) and sugar will not be listed as the first ingredient. ▪ Frozen Dessert/Pudding – not more than 30% of calories from fat, not more than 10% of calories from saturated fat and 4 grams or less of sugar per ounce. Must be a milk based product. Exceptions: ▪ Yogurt – All low-fat and non-fat varieties with no more that 4 grams of sugar per ounce. Brands with candy, cookie or sugar toppings are not acceptable ▪ ***Artificial sweeteners, non-nutritive sweeteners and sugar alcohols are not allowed.***	▪ Low calcium intake is one of the most significant nutrient deficiencies identified in Healthy People 2010. Milk and milk products are high in nutritional value and provide calcium, protein and vitamin D for bone growth and development. They are considered nutrient-dense (nutrient-rich) foods. ▪ The American Academy of Pediatrics (AAP) Policy Statement on Calcium Requirements of Infants, Children and Adolescents recognizes children's low calcium intake. The AAP urges pediatricians to recommend the daily consumption of milk, yogurt and cheese and other calcium-rich foods for children and teens to help build bone mass in all growing children and adolescents. ▪ For those who avoid milk because of lactose intolerance, the most reliable way to get the health benefits of milk is to choose lactose-free alternatives within the milk group, such as cheese, yogurt, or lactose-free milk, or to consume the enzyme lactase before consuming milk products.	▪ Low-fat yogurt ▪ Low-fat cottage cheese ▪ String cheese ▪ Low-fat cheese ▪ Skim and low-fat (1%) milk, flavored and plain ▪ Low-fat frozen yogurt bars ▪ Low-fat pudding ▪ Low-fat dip

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Food Category	Recommendation	Rationale	Food Suggestions
Meat, Beans, Nuts and Seeds Protein/Protein Alternatives Vending/ A La Carte Portion Size Trail mix, nuts, seeds - 1.75 oz. or less Nut butters - 2 tablespoons or less Meat, poultry or fish – 3 oz. or less Beans/legumes - 1 cup Tofu - 4 oz. or less	▪ Total Fat – 7 grams or less per single serving package. Nuts, seeds and nut butters are excluded from the total fat gram ruling. However, they are not acceptable if they contain more than 3 grams of *added* fat per individual serving package. ▪ Saturated Fats & Trans Fats – 2 grams or less per serving from saturated and 0 grams trans fat. Nuts, seeds and nut butters are excluded from the saturated fat gram ruling. ▪ Sugar – 5 grams or less of added sugar per serving ▪ ***Artificial sweetener, non-nutritive sweeteners and added sugar alcohols are not allowed***	▪ Meats, beans and nuts offer protein and other valuable nutrients such as zinc, iron and B vitamins. ▪ Protein supplies amino acids that build, repair and maintain body tissues. ▪ Non-hydrogenated nut butters e.g. all natural peanut butter or almond butter will have no trans fats and minimal saturated fat. They provide healthy unsaturated fats. ▪ USDA recommends 2-3 servings from the meat and bean group every day. ▪ Nuts, seeds and nut butters, while high in naturally occurring, heart healthy fats are an acceptable choice.	▪ Almonds ▪ Peanuts ▪ Sunflower seeds ▪ Soy nuts ▪ Walnuts ▪ Hummus ▪ Bean Dip ▪ Tuna snack pack ▪ Pumpkin seeds ▪ 1 hard boiled egg
Alternative Beverages Vending/ A La Carte Portion Size Water – plain-carbonated or non-carbonated-no limit on size-no added sugar/sweeteners Water-carbonated and non-carbonated flavored or sweetened with 100% fruit juice and no added sugars/sweeteners-12 oz. or less Soy, rice or almond beverage - 12 oz. or less	▪ Total Fat – 7 grams or less per serving ▪ Saturated Fats & Trans Fats – 2 grams or less per serving from saturated and 0 grams trans fat ▪ Soy, Rice, Almond beverages – 32 grams or less of total sugar per 8 oz. serving ▪ ***Artificial sweeteners, non-nutritive sweeteners and added sugar alcohols are not allowed***	▪ Many soft drinks are high in calories. Some are fortified with unnecessary and potentially harmful additives that children do not need at any time. ▪ Sports drinks are only recommended for times of vigorous physical activity that last 60-90 minutes (Nancy Clark's Nutrition Guidebook, 3rd ed.) ▪ Diet drinks, while not a source of calories, should be excluded, as they may displace consumption of healthier beverages. ▪ Potential health problems associated with high intake of sweetened drinks are: 1) overweight or obesity attributable to additional calories in the diet; 2) displacement of milk consumption, resulting in calcium deficiency with the attendant risk of osteoporosis and fractures; dental caries and potential enamel erosion (American Academy of Pediatrics Policy Statement on Soft Drinks in Schools, January, 2004)	▪ Water ▪ Soy, rice, almond beverage ▪ Water without added sugar or artificial sweeteners or caffeine ▪ Sparkling waters ▪ Seltzers

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Food Category	Recommendation	Rationale	Food Suggestions
Combination Snack Foods Many foods have main ingredients from two or more food groups from the Food Guide Pyramid (My Pyramid). These combination foods do not fit into any one food group.	▪ Combination foods should contain 250 calories or less per package. The exception to this is for nuts and dried fruit trail mixes where 300 or fewer calories per package would be acceptable. ▪ Ingredients are listed according to relative weight. Make sure the first ingredients listed are from major food groups such as whole grains, fruits, vegetables, milk, cheese, yogurt, nuts or seeds. ▪ Fat – follow grain guidelines ▪ Sugars – follow grain guidelines ▪ It is necessary to analyze each combination food individually for compliance to the healthy guidelines as outlined above. **Artificial sweeteners, non-nutritive sweeteners and added sugar alcohols are not allowed.**	▪ If a fat or oil is listed within the first two or three ingredients, there could be more fat than food items such as nuts or fruits and this is not acceptable. If the fat listed is a hydrogenated or partially hydrogenated oil, this product contains trans-fatty acids and limiting these fats is recommended. ▪ If a sweetener, sugar or other "ose" item is listed in the first two ingredients, then it is not a combination food, but rather a highly sweetened product and is not acceptable. If a product contains added sweeteners, natural sources such as fruit juice concentrates, maple syrup and sugar are preferred sources. High fructose corn syrup is not considered a natural source for sweetening.	▪ Fresh vegetables or fruits with low-fat dip or salad dressing ▪ Hummus with whole wheat pita bread ▪ Low-fat cheese with crackers ▪ Peanut butter with crackers ▪ Yogurt with granola cereal ▪ Bagels with low-fat cream cheese ▪ Trail mix that contains low fat granola, nuts, seeds, and/or dried fruit

Glossary of Terms

Additives & Preservatives – An **additive** is added to a food product either intentionally, to produce a desired effect or unintentionally through processing, storage or packaging. **Preservatives** are added to help maintain a food's freshness and to keep it from spoiling, or oxidizing.

A la Carte – Food sold in school cafeteria separately from the USDA reimbursable meal.

Artificial Sweeteners – to make sweet by artificial means, not naturally occurring.

Carbohydrates – Food category that contains any combination of sugars, starches, and cellulose. Is the body's main source of calories and energy.

Cholesterol – A fat-like, waxy substance found in your blood. Produced by your body in amounts as needed, also found in animal products.

- **LDL cholesterol** – Low Density Lipoprotein, considered the "bad" cholesterol. It increases the build up of fat like materials (plaque) that attaches to your blood vessels.
- **HDL cholesterol** – Considered "good" cholesterol. It helps your body get rid of cholesterol in your blood.
- **VLDL** – Very Low Density Lipoproteins, most likely triglycerides with some cholesterol. VLDL contributes to the amount of plaque that forms in your body.

Combination Foods - Refer to foods that have main ingredients from two or more food groups from the Food Guide Pyramid. These combination foods do not fit into any one food group ex. pizza, peanut butter and crackers, …

Competitive Foods – Competitive Foods are defined by the US Department of Agriculture (USDA) as foods offered at school other than meals served through USDA school meal programs-school breakfast, school lunch and after school snack programs.

Complex Carbohydrates – Found in almost all plant based foods, and usually take longer for the body to digest. Found in bread, noodles, rice, and vegetables.

Enriched vs. Fortified - **Enriched** means that vitamins or minerals have been added to the food. The vitamins and minerals are added to replace the original vitamins and minerals that were lost during the refining process. For example, if the food originally had iron, but the iron was lost during the refining process, the food will be 'enriched' to add the iron back into the food. **Fortified** means that vitamins or minerals have been added to the food in addition to the levels that were originally found before the food was refined. When foods are fortified, they will have more vitamins and minerals after they are refined than they did before they are refined. Common fortified foods are: milk (fortified with vitamin D) and salt (fortified with iodine).

Fat to Protein Ratio Calculation - Ratios are used to make comparisons between two things. The goal for the fat to protein ratio for dairy products is 1.5 to 1 or 1.5:1. When we express ratios in words, we use the word "to" -- we say "the ratio of something to something else" for example, the ratio of fat to protein in the illustrations below:

- Ricotta Cheese ¼ cup – 8 g fat to 7 g protein = 8:7 ratio = 1.1 to 1 (8 grams fat divided by 7 grams protein = 1.1) this product would be allowed.
- Coffee flavored Yogurt 6 oz. – 2.5 g fat to 8 g protein = 2.5:8 ratio = .3 to 1 (2.5 g fat divided by 8 g protein = .3) this product would be allowed.
- 1% Milk 8 oz. – 2.5 g fat to 8 g protein = 2.5:8 ratio = .3 to 1 (2.5 g fat divided by 8 g protein = .3) this product would be allowed
- Ice Cream ½ cup – 10 g fat to 3 g protein = 10 to 3 = 3.3:1 (10 g fat divided by 3 g protein = 3.3) this product would not be allowed.

Fiber – A carbohydrate that aids digestion and offers protection from some diseases. However, fiber is not a nutrient because it is not digested and absorbed by the body.

Fructose – naturally occurring sugar found in fruits and honey.

Healthy People 2010 – Healthy People 2010 provides a framework for prevention for the Nation. It is a statement of national health objectives designed to identify the most significant preventable threats to health and to establish national goals to reduce these threats. Healthy People 2010 is designed to achieve two overarching goals:

- **Goal 1: Increase Quality and Years of Healthy Life** - The first goal of Healthy People 2010 is to help individuals of all ages increase life expectancy *and* improve their quality of life.
- **Goal 2: Eliminate Health Disparities** - The second goal of Healthy People 2010 is to eliminate health disparities among different segments of the population.

High Fructose Corn Syrup (HFCS) -is a newer and sweeter form of corn syrup. By increasing the proportion of fructose, a syrup is produced which is more comparable to an ordinary sugar (sucrose) syrup in its ratio of fructose to glucose and in its sweetness. This makes it useful to manufacturers as a possible substitute for ordinary sugar (sucrose) in soft drinks and other consumer goods. Foods that list high fructose corn syrup as one of the first five ingredients are likely to be high in sugar.

Hydrogenated Fat - Hydrogenated fat is solid or semi-solid at room temperatures. It is found in hard and semi-soft margarine and in vegetable shortenings. These products are then used in processed foods

Lactose – disaccharide sugar naturally occurring in milk

Low cholesterol – 20 mg or less cholesterol and 2 g or less saturated fat per serving

Low-Fat – 3 g or less per serving

Monounsaturated Fats – Reduce cholesterol levels without decreasing HDL (good cholesterol) levels. The AHA recommends that between 10-15% of our total daily calories be from monounsaturated fats. Ex: peanut oil, canola oil, olive oil, tree nuts, peanuts.

Multi-grain – Foods that contain more than one type of grain. Multi-grain products are not, in all cases, 100% whole grain products.

Naturally Occurring – without artificial aid

Nutrient-Dense (Nutrient-Rich) – Nutrient-dense (nutrient-rich) foods give you the most nutrients for the least amount of calories.

Protein – Made up of building blocks called amino acids that build, repair, and maintain body tissue. Examples of protein foods are meat, poultry, eggs cheese, milk, yogurt, and soy. Beans and peas (legumes), seeds, and nuts supply protein in smaller amounts.

Polyunsaturated Fats – Also help to reduce cholesterol but at the same time reduce HDL levels. Therefore, the AHA recommends that these fats be limited to up to 10% of total daily calories. Ex: safflower oil, sunflower oil, soybean oil, corn oil, cottonseed oil, sesame oil.

Saturated Fats – Type of fat that increases cholesterol levels. The AHA recommends that saturated fats be limited to less than 10% of total calories. Ex: Animal fats – lard, butter, meat fat, dairy products from whole milk, chicken and turkey skin;
Vegetable fats – hydrogenated oils, palm oil, palm kernel oil, coconut oil.

Simple Carbohydrates –Also called sugars, are digested quickly and easily by the body. They are usually sweet tasting, like cookies, candy, soda, and other sugary foods.

Sugar Alcohols – Also, known as polyols, are ingredients used as sweeteners and bulking agents. They occur naturally in foods and come from plant products. As a sugar substitute, they provide fewer calories than regular sugar. Common sugar alcohols are mannitol, sorbitol, xylitol, lactitol, isomalt, maltitol and hydrogenated starch hydrolysates (HSH). Products with sugar alcohols are often labeled "sugar free."

Trans-Fats – Trans-fats shares many of the same characteristics as saturated fats, including the increasing cholesterol levels and the tendency to clog arteries. However, the base of many trans-fat products is vegetable oils, which ordinarily provide healthy unsaturated fat. Trans fat is the result of an artificial process called hydrogenation which converts vegetable oil into a more stable and solid form of shortening.

Unsaturated Fats - Oils that are liquid at room temperature, ex: canola, nut, olive, corn, safflower, soybean, and sunflower oils.

Vending – To sell food items through a vending machine.

Whole Grains – The entire edible portion of any grain: wheat, corn, oats, and rice among others. Whole grains are more abundant in foods that are not highly processed.

References

For more information on the research related to these guidelines or on food and nutrition related topics, you may find some of the following references helpful.

5 A Day/ Dole - http://www.dole5aday.com

Action For Healthy Kids - www.actionforhealthykids.org
Action for Healthy Kids/ Soda Tool Kit -
http://www.actionforhealthykids.org/AFHK/team_center/team_resources/NH/NHDS_SodaToolkit.pdf

American Academy of Pediatrics Policy Statement on Soft Drinks in Schools, January, 2004
http://www.aap.org/policy/s010119.html

American Cancer Society - http://www.schoolhealth.info/

American Dietetic Association - http://www.eatright.org
The American Dietetics Association's Complete Food & Nutrition Guide. Duyff, Roberta Larson, MS, RD, CFCS, New York: John Wiley & Sons, Inc., 2002.

American Heart Association – http://www.americanheart.org

The Center for Health & Health Care in Schools - www.healthinschools.org

Center for Science in the Public Interest - http://www.cspinet.org
Better and Worse Snacks – Foods and Drinks for School Vending Machines, 2003.

Do It With Dairy/ Trans Fat information - http://www.doitwithdairy.com/lowtransfat/

Georgetown University/ Bright Futures - http://www.brightfutures.org/nutritionfamfact/index.html

Iowa State University Extension/ Food for Fitness & Fun - www.extension.iastate.edu/food/

Kids First, Rhode Island - *Guidelines for Choosing Healthier Snacks and Vending Items, 2006* - www.kidsfirstri.org

Kids Health from the Nemours Foundation – www.kidshealth.org

Massachusetts A La Carte Food Standards to Promote a Healthier School Nutrition Environment.
Massachusetts Action for Healthy Kids, 2004.

Nancy Clark's Sports Nutrition Guidebook: Eating to Fuel Your Active Lifestyle. Nancy Clark, Leisure Press, 1990

National Alliance for Nutrition and Activity – NANA Wellness Policies
http://www.schoolwellnesspolicies.org/WellnessPolicies.html#quality

National Dairy Council - www.nationaldairycouncil.org

New England Dairy & Food Council - www.newenglanddairycouncil.org

No Junk Food - http://www.nojunkfood.org

Nutrition Explorations - www.nutritionexplorations.org

Pricing and promotion effects on low-fat vending snack purchases: the CHIPS study. French S, Jeffery R, Story M et al. American Journal of Public Health 2001; 91:1120117. http://www.ajph.org/cgi/content/abstract/91/1/112

School Nutrition Association - http://www.schoolnutrition.org/

United States Department of Agriculture – http://www.usda.gov