As fruit, vegetable, milk, and yogurt, smoothies are an increasingly common food item in the Child Nutrition Programs (CNP), the Food and Nutrition Service (FNS) has modified the guidance on smoothies to allow for the crediting of vegetables and yogurt including smoothies with yogurt at lunch. These additional ingredients provide variety to food service operators seeking to include appealing and nutritious smoothies on their menus. This memorandum replaces previous guidance on smoothies, addresses the crediting of vegetables and yogurt in smoothies, and clarifies the use of fruit concentrates in CNP.

**Crediting of Milk, Fruit and Yogurt**

Historically, fruit smoothies were not permitted to contribute toward the milk or meat/meat alternate requirements at breakfast. This crediting policy was based on the premise that service of recognizable forms of food supports the educational aspects of the meal programs and simplifies program operation. Additionally, the Dietary Guidelines for Americans emphasize that the majority of fruit consumed should come from whole fruits, including fresh, canned, frozen, and dried forms, rather than from juice. When juices are consumed, 100% juice should be encouraged. However, there has been increased usage and identification of smoothies as a recognizable food item; in many cases, it can also be a healthful food option. As a result, in July 2012, FNS allowed milk contained in smoothies prepared in-house to be credited.

Since then, some program operators have suggested that allowing yogurt in smoothies to credit toward the meat/meat alternate requirement at breakfast may provide a more acceptable taste and texture, which could help increase participation in the breakfast program while reducing waste. In recognition of these benefits FNS allowed for the crediting of yogurt in smoothies as a meat/meat alternate for the breakfast meal pattern beginning in July 2013. FNS is further extending the allowance of crediting yogurt in smoothies as a meat/meat alternate for the lunch meal pattern, effective on the date of this memorandum.
When smoothies contributing to the fluid milk component are served, it is critical that food service staff continue to offer a variety of fluid milk choices and monitor milk consumption to ensure that the service of smoothies does not compromise student consumption of milk. It is also important to recognize that the addition of yogurt to a smoothie does not serve as a substitution for fluid milk, which must continue to be offered separately to meet the milk component requirement.

**Crediting of Specific Vegetables**

Smoothies containing vegetables have become more popular, and some program operators wish to provide this option to contribute toward the meal pattern requirements. Currently, 100% fruit or vegetable juice, and 100% fruit and vegetable juice blends count toward the meal pattern requirements. In order to be consistent with meal pattern requirements, FNS is amending its policy to permit the crediting of vegetables contained in smoothies from any vegetable subgroup in the following forms: fresh, frozen, or canned vegetables, 100% vegetable juice, and 100% vegetable and fruit juice blends. Pureed vegetables and fruits, when served in a smoothie, credit as juice, and as such are subject to the limitations regarding juice service (i.e. not more than 50 percent of the weekly fruit or vegetable offerings in school meals, or not more than 50 percent of the daily offerings in the Child and Adult Care Food Program (CACFP) and the Summer Food Service Program (SFSP). Vegetables from the dry beans and peas subgroup may credit toward the vegetable meal pattern requirement as juice when served in a smoothie. This policy on the crediting of vegetables in smoothies applies in the breakfast and lunch meals, including afterschool snacks.

State agencies are reminded to distribute this memorandum and attachment to program operators immediately. School food authorities and other program operators should direct any questions concerning this guidance to their State agency. State agencies with questions should contact the appropriate FNS Regional Office.

Angela Kline  
Director  
Policy and Program Development Division  
Child Nutrition Programs

Attachment
Questions and Answers:

The guidance below provides school food authorities (SFAs) and other program operators with clarification on how smoothies may be credited under Child Nutrition Programs (CNP). This guidance includes questions from prior guidance on smoothies. New or updated questions are noted with an asterisk.

*1. Can smoothies prepared by operators be offered to meet the fluid milk, meat/meat alternate, vegetable, fruit, and grain components?

Milk may be credited toward the fluid milk requirement in smoothies prepared by program operators to meet meal pattern requirements for lunch and breakfast. Fruits and vegetables may be credited as juice (see below for additional information on juice and juice blends) in smoothies prepared by program operators to meet meal pattern requirements for lunch and breakfast. Yogurt may be credited as a meat alternate in smoothies prepared by program operators. Grains cannot be credited when served in a smoothie. For example, this 1½ cup blueberry, yogurt with milk smoothie could contribute the following to meal requirements:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Crediting</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 fl oz fat free milk</td>
<td>½ c milk</td>
</tr>
<tr>
<td>½ c blueberry puree, frozen</td>
<td>½ c fruit juice</td>
</tr>
<tr>
<td>4 oz low fat yogurt</td>
<td>1 oz meat alternate</td>
</tr>
</tbody>
</table>

2. Can program operators blend smoothies before the point of sale such as in a satellite kitchen?

Yes. Blending after the point of sale is not a requirement; smoothies can be served directly from the service line.

*3. Can smoothies include grain such as oatmeal and meat/meat alternates such as peanut butter to improve flavor and consistency even though such ingredients in smoothies do not contribute to meal pattern requirements?

Yes. Yogurt is the only creditable meat/meat alternate allowed in a smoothie. Though other (extra) ingredients in smoothies do not contribute to meal pattern requirements, all added ingredients in smoothies must be counted toward the weekly limits on calories, saturated fat and sodium.

4. Must smoothies include the full milk and fruit component if served?

No. Smoothies do not have to contain the full fluid milk and full fruit or vegetable meal pattern requirement. Program operators must always make certain that all components are offered in the...
required quantities to meet meal pattern requirements. The minimum creditable amount for fruits and vegetables is 1/8 cup as served. The minimum amount of creditable milk in a smoothie is one quarter cup.

5. What type of milk must be used when making smoothies?

The type of milk used in smoothies must be consistent with CNP guidance for each specific meal service and age group being served. For school meal programs, and Child and Adult Care Food Program (CACFP) the types of allowable milk include low-fat (1 percent milk fat or less, unflavored) or fat-free (unflavored or flavored).

*6. How does pureed fruit or vegetable credit toward the meal pattern requirement?

The total volume of pureed fruit or vegetable, fruit juice, and/or vegetable juice included in a smoothie must be counted as juice toward the daily and weekly fruit requirements. Program operators must limit the amount of juice offered to children to no more than half (50%) of the weekly fruit or vegetable offerings in the National School Lunch Program (NSLP) or School Breakfast Program (SBP). Program operators must limit the amount of juice offered to children to no more than half (50%) of the daily fruit/vegetable component at lunch in the CACFP and Summer Food Service Program (SFSP). Pureed fruit or vegetable included in a smoothie may be counted as the entire daily fruit/vegetable component at breakfast in the CACFP and SFSP. However, at snack, a smoothie containing juice and milk can credit as either juice or milk as long as there is a separate, second component served in addition to the fruit or vegetable and milk smoothie.

Additionally, crediting of fruit or vegetable is determined on a volume as served basis. The Food Buying Guide for Child Nutrition Programs currently has yield information for pureed blackberries, figs, guava, papaya, plums, and raspberries; the Food and Nutrition Service (FNS) is currently adding more fruit and vegetable purees for the next update of the Food Buying Guide for School Meal Programs. Currently, for other fruits or vegetables, program operators should determine crediting based on the volume AFTER pureeing. For example, program operators may determine the volume of blueberry puree obtained from one cup of whole blueberries by separately pureeing the blueberries and recording the resulting amount of puree. For crediting of commercially prepared smoothies, see question 9.

Pureed fruits and vegetables count as juice when offered in a smoothie; otherwise, pureed fruits and vegetables can be credited as fruit or vegetable when offered as a food, such as applesauce or in soup.

*7. When smoothies are offered during a meal, do additional fruits, vegetables and/or milk need to be offered?
When smoothies are offered on the serving line in the school meal programs, the fluid milk component must also be offered on the serving line in the required quantity to meet the meal requirements. This is necessary in order to meet the requirement to offer a variety of milk options for the school meal programs.

When smoothies are offered as part of any CNP meal, additional fruit, vegetable, meat/meat alternate and/or milk must be offered if the amount served in the smoothie does not fulfill the minimum serving sizes needed to meet the meal pattern requirements.

FNS strongly encourages program operators to offer additional fruit and vegetable options for children. This promotes variety and may assist in increasing offerings for Offer Versus Serve purposes. It would also allow a child that does not take a smoothie the option to select a fruit and/or vegetable.

**8. How do I identify the food components in the smoothie to students?**

Consistent with the nutrition standards for school meals regulations, SFAs must identify the food components offered to students and smoothies are subject to this same requirement. Schools serving smoothies should inform students about the components by using signs that list the components of the smoothie, for example, fruit or vegetable and milk smoothie, fruit and vegetable smoothie, or fruit and yogurt smoothie on the serving line. SFAs should consult with State agencies if they have any questions regarding methods of identification that are appropriate and sufficient.

**9. How do commercially prepared smoothies credit toward meal pattern requirements?**

Commercially prepared smoothies may only credit toward the fruit or vegetable components. Prepackaged smoothies do not comply with the Food and Drug Administration (FDA) standard of identity for “milk” or “yogurt” and do not meet the CNP requirements for “fluid milk” or “yogurt.” When these products contain “milk” and/or “yogurt,” they may be labeled as “dairy beverage” or “dairy drink.” Therefore, milk or yogurt in a commercially prepared smoothie does not contribute toward federal meal requirements.

Prepackaged smoothies do not have a Federal standard of identity, which means that product formulation and labeling can vary widely. Some frozen fruit products may be labeled as “fruit smoothie” even though they may actually meet the Federal standard of identity for Frozen Desserts that do not qualify for contributing to the reimbursable meal as fruit. Fruit or vegetable purees made into a slush-type product may or may not have “smoothie” in the product name. Program operators should purchase products that have a label which includes a statement regarding the “percent juice content” required by the FDA for beverages made with fruit and/or vegetable juice or puree. For example, an 8.0 fluid ounce smoothie made from fruit puree with the juice content labeled as “contains 50% juice” would credit as 4.0 fluid ounces or ½ cup of juice. The volume of pureed fruit included in the commercially prepared smoothie may be counted as juice toward the daily and weekly fruit requirement. Smoothies with less than 100%
juice content are the only instance when less than 100% juice may be offered for meeting federal meal requirements. When considering the use of commercially prepared smoothies, SFAs need to be aware of how non-fruit or vegetable ingredients may impact calories and saturated fat, particularly in light of the non-contributing ingredients in these products. As with any menu item, the entire recipe will impact the dietary specifications for calories, saturated fat, sodium, and trans-fat within the weekly menu.

10. Can smoothies contain nutritional supplements such as whey protein powder and herbal supplements such as Ginkgo biloba?

No. Smoothies with dietary and herbal supplements are not creditable for CNP. However, smoothies can be made with juice that has been fortified with vitamins and minerals such as orange juice with calcium and Vitamin D added.

*11. Can concentrated fruit puree and concentrated fruit juice contribute to meal requirements when used in smoothies?

Concentrated fruit puree and concentrated juice can only be used in meeting federal meal requirements when they are reconstituted to full-strength, fruit puree or full-strength juice. Without being reconstituted to the original strength, concentrated fruit puree and concentrated juice are considered to be added sugar.

12. Are smoothies allowed at breakfast and lunch?

Yes. Smoothies may be offered at any meal. It is not recommended to offer a smoothie at both breakfast and lunch on the same day.

13. Does soy yogurt credit toward the meat/meat alternate in smoothies in breakfast and lunch?

Yes. Both dairy and soy yogurt can credit toward the meat/meat alternate in smoothies at breakfast in the SBP and lunch in the NSLP. Only dairy yogurt can credit toward the meat/meat alternate in smoothies at breakfast and lunch for all other CNP.

The FNS Instruction 783-7, Rev. 1: Milk Requirement - CNP will be updated to be consistent with this guidance to allow smoothies prepared by program operators with milk at breakfast.

*14. Can smoothies containing a blend of different vegetables, vegetable juice blends, or fruit and vegetable juice blends contribute toward a specific vegetable subgroup for school meals?

Vegetable smoothies containing one vegetable subgroup or a 100% vegetable juice blend may credit toward an individual subgroup when vegetables from only one subgroup is present. Vegetables or full-strength vegetable juice blends containing vegetables from more than one
subgroup contribute to the “additional” vegetable requirement. For example, a smoothie containing carrots and tomatoes or a tomato/carrot vegetable juice blend may credit toward the “red/orange” vegetable subgroup. However, a smoothie with a vegetable juice blend containing carrots, spinach, tomato and watercress may only credit toward the “additional” vegetable requirement. Again, smoothies with pureed fruits and/or pureed vegetables may only contribute to the fruit and/or vegetable requirements as juice and are subject to the applicable juice limitations.

Smoothies containing a mix of fruit and vegetables or that contain 100% fruit and vegetable juice blends may contribute to the fruit requirement when fruit juice or puree is the most predominant ingredient. If vegetable juice or puree is more predominant than the fruit puree, the smoothie will contribute toward the “additional” vegetable requirement.