¡Miranos! Center-Based Program

Introduction

The ¡Miranos center-based program is a comprehensive program that is designed to prevent childhood obesity, promote healthy growth, and develop healthy habits for life in preschool children ages 3-5 children by:

- Increasing daily physical activity and reducing sedentary behavior
- Offer balanced healthy meals and snacks utilizing the USDA Child and Adult Care Food
 Program meal patterns and best practice recommendations
- Using age-appropriate feeding strategies to create a positive environment to support the consumption of fruits and vegetables and new foods.
- Reducing screen time
- Encouraging healthy sleep habits through education on sleep requirements for children ¡Miranos! seeks to assure the development of healthy habits and overall wellbeing of children.

Early child care staff are encouraged to be part of children's play, role-model healthy behaviors to children at all times, be physically active 30 min every day, eat healthy meals that follow MyPlate recommendations every day.

Center-Based Program Components

Physical Activity

Nutrition

Sleep

Screen Time

Healthy Contests

Staff Wellness

Appendix

Appendix A: Child and Adult Care Food Program Meal Patterns

Appendix B: Child and Adult Care Food Program (CACFP) Best Practices



<u>Appendix C:</u> Vegetables and Fruits added by the ¡Miranos! Program to meet CACFP best practices.

References:

Yin Z, Ullevig SL, Sosa E, Liang Y, Olmstead T, Howard JT, Errisuriz VL, Estrada VM, Martinez CE, He M, Small S, Schoenmakers C, Parra-Medina D. <u>Study protocol for a cluster randomized controlled trial to test "¡Míranos! Look at Us, We Are Healthy!" - an early childhood obesity prevention program.</u> BMC pediatrics. 2019;19(1):190-. dPubMed PMID: <u>31179916</u>

Johnstone, Jill. <u>Perceptual-Motor Activities for Children: An Evidence-Based Guide to Building Physical and Cognitive Skills, First Edition.</u> Champaign, IL. Human Kinetics Publishers, 2011.

David A. Ulrich with assistance from Christopher B. Sanford. <u>Test of Gross Motor Development Second Edition</u>. <u>Examiner's Manual</u>. Pro-ed Publisher. Austin Texas, 2000.

MyPlate. United States Department of Agriculture. Accessed May 3, 2021.

<u>Child And Adult Care Food Program Meal Patterns.</u> Food and Nutrition Service, United States Department of Agriculture, October 2017. Accessed May 3, 2021.

Optional Best Practices to Further Improve Nutrition in the Child and Adult Care Food Program Meal Pattern. Food and Nutrition Service, United States Department of Agriculture. Accessed May 3, 2021.

<u>The National Sleep Foundation's sleep time duration recommendations: methodology and results summary.</u> *Sleep Health.* 2015;1(1):40–43. dPubmed PMID: 29073412

<u>Screen time</u>. Merriam-Webster.com Dictionary, Merriam-Webster. Accessed May 3, 2021.

Recipe Substitutions for Peanuts and Tree Nuts. Kids with Food Allergies, A Division of the Asthma and Allergy Foundation of America. Accessed May 3, 2021.

Committee on Injury, Violence, and Poison Prevention. <u>Prevention of choking among children</u>. Pediatrics. 2010;125(3):601-7. dPubMed PMID: <u>20176668.</u>



Physical Activity Overview

The major goals of the ¡Miranos! physical activity program include:

- Promote healthy growth (height and weight) in children.
- Increase daily physical activity.
- Young children should have up to 180 minutes each day of structured and unstructured indoor and outdoor activities.
- Reduce sedentary time
- Motivate children to move.
- Young children should not be sedentary for more than 15 minutes at a time.
 - Increase gross motor skill development
 - Improve the overall fitness of the children
- Strong muscles and bones
- Physical fitness
- Healthy weight
- Disease prevention (such as diabetes)
- Develop healthy attitudes and habits in physical activity

¡Miranos! encourages teachers to role model healthy behaviors and to be an active participant of children's play. (not just a supervisor during play). The ¡Miranos! curriculum offers 90 minutes of teacher-led physical activity to children at the center every day.



Nutrition Overview

The major goals of the ¡Miranos! nutrition program include:

- Incorporate the ¡Miranos! curriculum which includes the Sesame Street Healthy Habits for Life lessons into already existing center curriculum.
- Evaluate current child care menu and identify ways to enhance the menu by following the USDA Child and Adult Care Food Program (CACFP) meal patterns (<u>Appendix A</u>) and striving to meet the optional best practice recommendations (<u>Appendix B</u>).

The ¡Miranos! research study focused on the following 3 best practices:

- a. Serve a variety of fruits, choosing whole fruits (fresh, canned, dried, or frozen) instead of juice.
- b. Incorporate seasonal and locally grown fruits and vegetables into menus.
- c. Provide at least one serving each of dark green vegetables, red and orange vegetables, beans and peas (legumes), starchy vegetables, and other vegetables once per week.

<u>Appendix C</u> includes the fruits and vegetables added by the ¡Miranos! program to enhance Head Start center menus.

- Provide unique food tastings during snack time that meet the USDA Child and Adult
 Care Food Program snack guidelines. See Appendix A. ¡Miranos! Food Tastings are
 incorporated into the ¡Miranos! Curriculum.
- Use age-appropriate feeding strategies and create a positive environment to support the
 consumption of fruits and vegetables and new foods. These feeding strategies are
 discussed in the ¡Miranos! Training section.



Sleep

Sleep Requirements for Children

- Sleep plays a crucial role in the development of young children.
- The amount of sleep a child gets is important because it has effects on growth and motor skill development.
- Children who do not get enough sleep are more likely to become **obese**, have high blood pressure, and diabetes.

¡Miranos! recommends that children get at least 10 hours of sleep every day. The ¡Miranos! curriculum includes activities and healthy contests that help children learn about sleep and understand the importance of sleep.

How Much Sleep Do You Really Need?				
Age	Sleep Needs			
Newborns (0-2 months)	12 to 18 hours			
Infants (3-11 months)	14 to 15 hours			
Toddlers (1-3 years)	12 to 14 hours			
Preschoolers (3-5 years)	11 to 13 hours			
School-age children (5-10 years) 10 to 11 hours			
Teens (10-17 years)	8.5 to 9.25 hours			
Adults	7 to 9 hours			
	Source: National Sleep Foundation			



Screen Time

Definition:

Screen time is the amount of time spent using a device with a screen such as a smartphone, computer, television, or video game console.

Points to remember:

- Preschoolers learn by interacting with the world around them. They need to be physically active.
- Screen time is sedentary activity, meaning children are being physically inactive.
- A small amount of energy is used during screen time.
- Most American children spend about 3 to 4 hours a day watching TV.
- Screen time has become the primary source of entertainment for children.
- Children ages 2 to 5 years should have no more than one hour of screen time of highquality educational content per day.

Some health-related problems due to excessive screen time are:

- Too much screen time is associated with obesity.
- Screen time takes the place of active play.
- There tends to be more snacking while watching television.
- Excessive screen time causes a decrease in focus and attention

¡Miranos! recommends children limit television and computer time to less than 2 hours a day. The ¡Miranos! curriculum includes activities and healthy contests that help children learn the importance of minimizing screen time.



Healthy Contests

The ¡Miranos! curriculum includes 9 healthy contests that are 1 school week in length or 5 days. These contests encourage children and staff to participate in healthy behaviors, including increased physical activity, drinking water, eating fruits and vegetables, getting enough sleep and minimizing screen time. The healthy contests coordinate with the ¡Miranos! curriculum topics and staff wellness program challenges.

Staff Wellness Program

Wellness programs provided at the workplace offer opportunities for staff's to improve their health and well-being. A healthy staff also sets an example for center children to be healthy. The ¡Miranos! staff wellness manual guides staff to create goals for healthy habits, including exercise, water consumption, fruits, vegetables, and general well-being. Staff track goals, and reevaluate their progress through the wellness program.

The wellness program is designed to be used daily and has a new focus each week. The program is divided into three sections.

- Section 1: Physical activity and hydration
- Section 2: Fruits and vegetables
- Section 3: Overall wellbeing

Within each section of the wellness manual there are facts and information, helpful tips, goal setting, recipes, and other additional resources.

There are also 9 healthy challenges staff can participate in that coordinate with the children's healthy contest. The entire center staff and children are encouraged to participate in the challenges/contests together.

The staff wellness manual is available in PDF or video formats.



CHILD MEAL PATTERN

Breakfast (Select all three components for a reimbursable meal)						
Food Components and Food Items ¹	Ages 1-2	Ages 3-5	Ages 6-12	Ages 13-18 ² (at-risk afterschool programs and emergency shelters)		
Fluid Milk ³	4 fluid ounces	6 fluid ounces	8 fluid ounces	8 fluid ounces		
Vegetables, fruits, or portions of both ⁴	¼ cup	½ cup	½ cup	½ cup		
Grains (oz eq) ^{5,6,7}						
Whole grain-rich or enriched bread	½ slice	½ slice	1 slice	1 slice		
Whole grain-rich or enriched bread product, such as biscuit, roll or muffin	½ serving	½ serving	1 serving	1 serving		
Whole grain-rich, enriched or fortified cooked breakfast cereal ⁸ , cereal grain, and/or pasta	¼ cup	¼ cup	½ cup	½ cup		
Whole grain-rich, enriched or fortified ready-to-eat breakfast cereal (dry, cold) ^{8,9}						
Flakes or rounds	½ cup	½ cup	1 cup	1 cup		
Puffed cereal	¾ cup	¾ cup	1 ¼ cup	1 ¼ cup		
Granola	¹∕₃ cup	¹∕s cup	¼ cup	¼ cup		

¹ Must serve all three components for a reimbursable meal. Offer versus serve is an option for at-risk afterschool participants.

 $^{^2}$ Larger portion sizes than specified may need to be served to children 13 through 18 years old to meet their nutritional needs.

³ Must be unflavored whole milk for children age one. Must be unflavored low-fat (1 percent) or unflavored fat-free (skim) milk for children two through five years old. Must be unflavored low-fat (1 percent), unflavored fat-free (skim), or flavored fat-free (skim) milk for children six years old and older.

⁴ Pasteurized full-strength juice may only be used to meet the vegetable or fruit requirement at one meal, including snack, per day.

⁵ At least one serving per day, across all eating occasions, must be whole grain-rich. Grain-based desserts do not count towards meeting the grains requirement.

⁶ Meat and meat alternates may be used to meet the entire grains requirement a maximum of three times a week. One ounce of meat and meat alternates is equal to one ounce equivalent of grains.

⁷ Beginning October 1, 2019, ounce equivalents are used to determine the quantity of creditable grains.

⁸ Breakfast cereals must contain no more than 6 grams of sugar per dry ounce (no more than 21.2 grams sucrose and other sugars per 100 grams of dry cereal).

⁹ Beginning October 1, 2019, the minimum serving size specified in this section for ready-to-eat breakfast cereals must be served. Until October 1, 2019, the minimum serving size for any type of ready-to-eat breakfast cereals is ¼ cup for children ages 1-2; 1/3 cup for children ages 3-5; and ¾ cup for children ages 6-12.

CHILD MEAL PATTERN

Lunch and Supper						
(Select all five components for a reimbursable meal)						
Food Components and Food Items ¹	Ages 1-2	Ages 3-5	Ages 6-12	Ages 13-18 ² (at-risk after school programs and emergency shelters)		
Fluid Milk ³	4 fluid ounces	6 fluid ounces	8 fluid ounces	8 fluid ounces		
Meat/meat alternates		2	ř			
Lean meat, poultry, or fish	1 ounce	1½ ounce	2 ounces	2 ounces		
Tofu, soy product, or alternate protein products ⁴	1 ounce	1½ ounce	2 ounces	2 ounces		
Cheese	1 ounce	1½ ounce	2 ounces	2 ounces		
Large egg	1/2	3/4	1	1		
Cooked dry beans or peas	¼ cup	³ / ₈ cup	½ cup	½ cup		
Peanut butter or soy nut	•					
butter or other nut or seed	2 tbsp	3 tbsp	4 tbsp	4 tbsp		
butters	8	76	⁹⁸	20		
Yogurt, plain or flavored	4 ounces or	6 ounces or	8 ounces or	8 ounces or		
unsweetened or sweetened ⁵	½ cup	³¼ cup	1 cup	1 cup		
The following may be used to meet no more than 50% of the requirement: Peanuts, soy nuts, tree nuts, or seeds, as listed in program guidance, or an equivalent quantity of any combination of the above meat/meat alternates (1 ounces of nuts/seeds = 1 ounce of cooked lean meat, poultry, or fish)	½ ounce = 50%	¾ ounce = 50%	1 ounce = 50%	1 ounce = 50%		
Vegetables ⁶	½ cup	¹⁄₄ cup	½ cup	½ cup		
Fruits ^{6,7}	½ cup	¼ cup	¼ cup	¼ cup		
Grains (oz eq) ^{8,9}						
Whole grain-rich or enriched bread	½ slice	½ slice	1 slice	1 slice		
Whole grain-rich or enriched bread product, such as biscuit, roll or muffin	½ serving	½ serving	1 serving	1 serving		
Whole grain-rich, enriched or fortified cooked breakfast cereal ¹⁰ , cereal grain, and/or pasta	¼ cup	¼ cup	½ cup	½ cup		

¹ Must serve all five components for a reimbursable meal. Offer versus serve is an option for at-risk afterschool participants.

² Larger portion sizes than specified may need to be served to children 13 through 18 years old to meet their nutritional needs.

³ Must be unflavored whole milk for children age one. Must be unflavored low-fat (1 percent) or unflavored fat-free (skim) milk for children two through five years old. Must be unflavored low-fat (1 percent), unflavored fat-free (skim), or flavored fat-free (skim) milk for children six years old and older.

⁴ Alternate protein products must meet the requirements in Appendix A to Part 226.

⁵ Yogurt must contain no more than 23 grams of total sugars per 6 ounces.

⁶ Pasteurized full-strength juice may only be used to meet the vegetable or fruit requirement at one meal, including snack, per day.

⁷ A vegetable may be used to meet the entire fruit requirement. When two vegetables are served at lunch or supper, two different kinds of vegetables must be served.

⁸ At least one serving per day, across all eating occasions, must be whole grain-rich. Grain-based desserts do not count towards the grains requirement.

⁹ Beginning October 1, 2019, ounce equivalents are used to determine the quantity of the creditable grain.

¹⁰ Breakfast cereals must contain no more than 6 grams of sugar per dry ounce (no more than 21.2 grams sucrose and other sugars per 100 grams of dry cereal).

CHILD MEAL PATTERN

Snack (Select two of the five components for a reimbursable snack)					
Food Components and Food Items ¹	Ages 1-2	Ages 3-5	Ages 6-12	Ages 13-18 ² (at-risk afterschool programs and emergency shelters)	
Fluid Milk ³	4 fluid ounces	4 fluid ounces	8 fluid ounces	8 fluid ounces	
Meat/meat alternates					
Lean meat, poultry, or fish	½ ounce	½ ounce	1 ounce	1 ounce	
Tofu, soy product, or alternate protein products ⁴	½ ounce	½ ounce	1 ounce	1 ounce	
Cheese	½ ounce	½ ounce	1 ounce	1 ounce	
Large egg	1/2	1/2	1/2	1/2	
Cooked dry beans or peas	1/8 cup	½ cup	¼ cup	¼ cup	
Peanut butter or soy nut butter or other nut or seed butters	1 tbsp	1 tbsp	2 tbsp	2 tbsp	
Yogurt, plain or flavored	2 ounces or	2 ounces or	4 ounces or	4 ounces or	
unsweetened or sweetened ⁵	¼ cup	¼ cup	½ cup	½ cup	
Peanuts, soy nuts, tree nuts, or seeds	½ ounce	½ ounce	1 ounce	1 ounce	
Vegetables ⁶	½ cup	½ cup	¾ cup	¾ cup	
Fruits ⁶	½ cup	½ cup	¾ cup	¾ cup	
Grains (oz eq) ^{7,8}					
Whole grain-rich or enriched bread	½ slice	½ slice	1 slice	1 slice	
Whole grain-rich or enriched bread product, such as biscuit, roll or muffin	½ serving	½ serving	1 serving	1 serving	
Whole grain-rich, enriched or fortified cooked breakfast cereal ⁹ , cereal grain, and/or pasta	¼ cup	¼ cup	½ cup	½ cup	
Whole grain-rich, enriched or fortified ready-to-eat breakfast cereal (dry, cold) ^{9,10}					
Flakes or rounds	½ cup	½ cup	1 cup	1 cup	
Puffed cereal	¾ cup	¾ cup	1 ¼ cup	1 ¼ cup	
Granola	½ cup	½ cup	¼ cup	¼ cup	

¹ Select two of the five components for a reimbursable snack. Only one of the two components may be a beverage.

² Larger portion sizes than specified may need to be served to children 13 through 18 years old to meet their nutritional needs.

³ Must be unflavored whole milk for children age one. Must be unflavored low-fat (1 percent) or unflavored fat-free (skim) milk for children two through five years old. Must be unflavored low-fat (1 percent), unflavored fat-free (skim), or flavored fat-free (skim) milk for children six years old and older.

⁴ Alternate protein products must meet the requirements in Appendix A to Part 226.

⁵ Yogurt must contain no more than 23 grams of total sugars per 6 ounces.

⁶ Pasteurized full-strength juice may only be used to meet the vegetable or fruit requirement at one meal, including snack, per day.

⁷ At least one serving per day, across all eating occasions, must be whole grain-rich. Grain-based desserts do not count towards meeting the grains requirement.

⁸ Beginning October 1, 2019, ounce equivalents are used to determine the quantity of creditable grains.

⁹ Breakfast cereals must contain no more than 6 grams of sugar per dry ounce (no more than 21.2 grams sucrose and other sugars per 100 grams of dry cereal).

¹⁰ Beginning October 1, 2019, the minimum serving sizes specified in this section for ready-to-eat breakfast cereals must be served. Until October 1, 2019, the minimum serving size for any type of ready-to-eat breakfast cereals is ½ cup for children ages 1-2; 1/3 cup for children ages 3-5; and ¾ cup for children ages 6-12.

CHILD AND ADULT CARE FOOD PROGRAM: BEST PRACTICES



The updated CACFP meal patterns lay the foundation for a healthy eating pattern for children and adults in care. USDA also developed optional best practices that build on the meal patterns and highlight areas where centers and day care homes may take additional steps to further improve the nutritional quality of the meals they serve. The best practices reflect recommendations from the Dietary Guidelines for Americans and the National Academy of Medicine to further help increase participants' consumption of vegetables, fruits, and whole grains, and reduce the consumption of added sugars and saturated fats.

CACFP Best Practices

USDA highly encourages centers and day care homes to implement these best practices in order to ensure children and adults are getting the optimal benefit from the meals they receive while in care:



Infants

• Support mothers who choose to breastfeed their infants by encouraging mothers to supply breastmilk for their infants while in day care and offer a quiet, private area that is comfortable and sanitary for mothers who come to the center or day care home to breastfeed.



Vegetables and Fruit

- Make at least 1 of the 2 required components of a snack a vegetable or a fruit.
- Serve a variety of fruits and choose whole fruits (fresh, canned, dried, or frozen) more often than juice.
- Provide at least one serving each of dark green vegetables, red and orange vegetables, beans and peas (legumes), starchy vegetables, and other vegetables once per week.



Grains

· Provide at least two servings of whole grain-rich grains per day.



Meat and Meat Alternates

- · Serve only lean meats, nuts, and legumes.
- Limit serving processed meats to no more than one serving per week.
- Serve only natural cheeses and choose low-fat or reduced fat-cheeses.



Milk

- Serve only unflavored milk to all participants. If flavored milk is served to children 6 years old and older, or
 adults, use the Nutrition Facts Label to select and serve flavored milk that contains no more than 22 grams
 of sugar per 8 fluid ounces, or the flavored milk with the lowest amount of sugar if flavored milk within this
 sugar limit is not available.
- Serve water as a beverage when serving yogurt in place of milk for adults.





Additional Best Practices

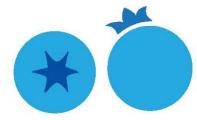
- Incorporate seasonal and locally produced foods into meals.
- · Limit serving purchased pre-fried foods to no more than one serving per week.
- Avoid serving non-creditable foods that are sources of added sugars, such as sweet toppings (e.g., honey, jam, syrup), mix-in ingredients sold with yogurt (e.g., honey, candy, or cookie pieces), and sugar sweetened beverages (e.g., fruit drinks or sodas).
- Adult day care centers should offer and make water available to adults upon their request, throughout the day.

Resources

Find useful tips and strategies to help you incorporate the best practices into your every day meal service:

- Nutrition and Wellness Tips for Young Children: Child care providers can use these tips to incorporate key recommendations and best practices into their menus and daily schedules.
- Feeding Infants: This guide presents information on infant development, nutrition for infants, breastfeeding and formula feeding, feeding solid foods, sanitary food preparation, safe food handling, and much more!
- Healthy Meals Resource System: CACFP centers and day care homes will find more menu planning tools, recipe
 ideas, and additional tips and ideas to help implement the updated meal patterns and best practices, such as
 hosting taste tests to help introduce and get children excited about new foods and menus.
- Team Nutrition Resource Library: Visit the Team Nutrition Resource Library for free nutrition education materials to further reinforce and complement the nutrition messages taught by serving healthful foods.
- MyPlate: Resources found on the MyPlate website can help CACFP centers and day care homes identify healthier
 options to ensure menu choices contain the most nutrients children need to grow.
- ICN Education and Training Resources: The Institute of Child Nutrition's resources provide education and training
 opportunities to help provide nutritious meals in CACFP homes and day care settings.









Appendix C

¡Miranos! research study fruits and vegetables

The ¡Miranos! research study added or offered more often certain fruits and vegetables to enhance center menus to meet some of the Child and Adult Care Food Program (CACFP) optional best practices.

The ¡Miranos! research study focused on the following CACFP optional Best Practices:

- Make at least 1 of the 2 required components of a snack a vegetable or a fruit.
- Serve a variety of fruits and choose whole fruits (fresh, canned, dried, or frozen) more
 often than juice.
- Provide at least one serving each of dark green vegetables, red and orange vegetables, beans and peas (legumes), starchy vegetables, and other vegetables once per week.

Vegetables (served at meals and snacks)

- Cucumber slices, no skin
- Matchstick carrots, raw
- Celery
- Broccoli (raw and cooked)
- Dark green leafy salads romaine lettuce
- Raw green and red bell pepper strips
- Corn

Seasonal Vegetables (served at meals)

- Butternut squash (cubed) roasted
- Sweet potato sticks roasted

Beans, legumes, meat alternatives (served at meals and snacks)

- Black beans
- Chickpeas/Garbanzo Beans

Beans, legumes, meat alternatives (continued)

- Plain hummus^(a)
 (a) Contains sesame seed oil which may be an allergen for some.
- Sunflower seed butter^(b)
 Sunflower seed butter (SunButter®) is a peanut butter substitute, but sunflower seeds may be an allergen for some.

Fruits (served at meals and snacks)

- Mandarin oranges
- Mixed Berries
- Blueberries
- Mango applesauce
- Fresh fruit mix: pineapple, cantaloupe, honey dew melon
- Dried cranberries^(c)
 - (c) The American Academy of Pediatrics removed raisins and cranberries from their choking list in 2010.

