

Feeding Infants and Young Toddlers: Using the Latest Evidence in WIC Settings

Healthy Eating Research

Building evidence to
prevent childhood obesity

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Introduction

The foods that we feed infants and toddlers and the way we feed them play an important role in establishing healthy food preferences and behaviors, yet there is a lack of evidence-based guidelines for infant and toddler feeding practices in the United States. Such guidelines are needed to prevent child overweight and obesity, as a significant proportion of children ages 2 or younger are already at risk. While there is strong justification for comprehensive infant and toddler feeding guidelines, current Dietary Guidelines for Americans (DGA) do not address the age group of birth to 24 months, although they are expected to be included in the 2020 DGA.

In 2016, *Healthy Eating Research*, a national program of the Robert Wood Johnson Foundation, convened an expert panel to review the evidence that has emerged over the past two decades for promoting healthy nutrition and feeding patterns for infants and toddlers. As a result, the panel developed a set of feeding guidelines for pregnant women and children from birth to age 2. The expert panel's full report, "Feeding Guidelines for Infants and Young Toddlers: A Responsive Parenting Approach," is available on the *Healthy Eating Research* website.¹

Some of those feeding guidelines, summarized in this issue brief, are directly relevant to the Special Supplemental Nutrition Program for Women, Infants and Children, better known as WIC. Funded by the United States Department of Agriculture (USDA), WIC provides nutritious food and nutrition education as well as breastfeeding education and support to low-income pregnant and postpartum women, infants, and children up to age 5. Currently about 7.4 million women, infants, and children receive WIC benefits.² About half of all infants born in the United States³ and 25 percent of all children under age 5 receive services from WIC.⁴ WIC services are offered in over 10,000 sites nationwide, with sites operating in the 50 geographic States, 34 Indian Tribal Organizations, five U.S. territories, and the District of Columbia.



Core WIC Services

Three core services of WIC include: healthy food, nutrition education, and breastfeeding support.

The WIC food package is the core of the program and sets WIC apart from other nutrition assistance programs. The food packages are scientifically reviewed every 10 years to align with the most recent nutrition science and DGA. Food packages for women and children include vegetables, fruits, legumes (beans and/or peanut butter), milk, cheese, eggs, whole grain foods (e.g., bread, tortillas, brown rice), breakfast cereal, and 100 percent juice. With the exception of infant formula for infants who are not breastfed, no foods are issued to infants before 6 months of age. From 6 to 12 months, infants receive infant cereal and jarred vegetables and fruits; infants who are fully breastfed also receive jarred infant meats. Infants who are not breastfed receive formula through 12 months of age. The packages are designed to incentivize breastfeeding as much as possible.⁵

The provision of nutrition education is another hallmark of the program's success. Participants are required to attend at least one nutrition education session every three months, which may include one-on-one nutrition counseling, group education, online education, and/or other formats. WIC educators are well trained and come from a diversity of educational backgrounds, and most sites provide nutrition education that is tailored to the needs of each participant and covers a broad range of topics.⁶

Finally, breastfeeding support is central to WIC's mission, as reaffirmed in the latest policy analysis and guidance issued by the USDA.⁷ USDA provides resources for training WIC staff and educating participants to promote and support breastfeeding. WIC also supports breastfeeding through peer counselors, lactation consultants, classes, and support groups. WIC also provides educational materials, breast pumps, and hotlines for mothers needing support.⁸ Given the diversity of breastfeeding support activities described above, it is important to note that there is variation from site to site in how breastfeeding support is delivered.

Overview of the Feeding Guidelines

The expert panel report provides recommended guidelines on how and what to feed infants and toddlers ages 2 or younger, based on current scientific evidence, within the context of the growing child and responsive caregiving. The responsive parenting/feeding guidelines support three specific age groups: 0 to 6 months, 6 to 12 months, and 12 to 24 months. Feeding recommendations are a primary focus in all three sets of age-specific guidelines, but other developmental domains such as sleep and soothing are also included as research shows they also influence and are influenced by early feeding behaviors.

■ Birth to 6 months: Feeding the newborn and young infant.

Consistent with recommendations from the American Academy of Pediatrics (AAP), the guidelines support exclusive breastfeeding for about the first six months, with continued breastfeeding until the child is at least 1 year old. Breastfeeding itself is a responsive feeding practice as it allows the infant to regulate his or her own intake. That said, the responsive parenting/feeding guidelines directed at the first six months support responsive feeding of all infants, regardless of decisions around breastfeeding. All mothers benefit from information about how to recognize hunger and satiety cues and interpret signs of fullness. The responsive parenting/feeding recommendations for the 0- to 6-month-old not only cover infant feeding, but also provide easy-to-access recommendations on multiple developmental areas relevant to early infant feeding: sleep, soothing, infant temperament, bottle use, introduction of solid foods, and the feeding environment.

■ **6 to 12 months: Complementary feeding.** Six to 12 months is an exciting time for infant feeding as the diet shifts from exclusive feeding of breast milk and/or formula to include a variety of new foods. At 6 months, the WIC food package for infants expands to include infant cereal, jarred vegetables and fruits, and jarred meats for the fully breastfed infant (and starting at 9 months, states have the option to allow participants to receive fresh vegetables and fruits in place of some of the jarred vegetables and fruits). The responsive parenting/feeding guidelines directed at this age group enhance the recommendations of *what* to feed with the practical support recommendations for *how* to do it. The guidelines for this time period center around how to encourage a variety of healthy new foods and textures, as well as how to patiently respond if the infant rejects these new foods. Guidelines around hunger and satiety cues remain central, and also include the topics of mealtimes as a pleasant experience, parental role modeling, screen time, physical activity, and establishing sleep and feeding routines.

■ **12 to 24 months: Toddlerhood and picky eating.** It is the rare toddler who loves every new food. A significant amount of WIC counseling for caregivers of this age group focuses on the challenges of getting toddlers to eat healthy foods. At age 12 months, the WIC food package expands to include vegetables, fruits, legumes (beans and/or peanut butter), milk, cheese, eggs, whole grain foods (e.g., bread, tortillas, brown rice), breakfast cereal, and limited amounts of 100 percent juice. These foods align with the dietary guidance on what to feed toddlers, and the guidelines around responsive parenting/feeding at this age group provide multiple recommendations for how to support the caregiver to encourage healthy eating. Topics of use to the WIC practitioner include mealtime routines, self-feeding and the transition to table food, learning to like healthy food, appetite control and pressure to eat, sleep routines and screen time, and physical activity.

Definitions

COMPLEMENTARY FEEDING is a process that starts when human milk or infant formula is complemented by other foods and beverages and ends when the young child transitions fully to table foods. The complementary feeding period typically continues to 24 months of age.

COMPLEMENTARY FOODS are foods and beverages other than human milk or infant formula (liquids, semisolids, and solids) provided to an infant or young child to provide nutrients and energy.

RESPONSIVE FEEDING is a key dimension of responsive parenting. It is a process that involves reciprocity between the child and caregiver during the feeding process. It is grounded upon the following three steps: (1) the child

signals hunger and satiety through motor actions, facial expressions, or vocalizations; (2) the caregiver recognizes the cues and responds promptly in a manner that is emotionally supportive, contingent on the signal, and developmentally appropriate; and (3) the child experiences a predictable response to signals.

RESPONSIVE PARENTING is a caregiving style that is meant to foster the development of self-regulation and promote cognitive, social, and emotional development. Self-regulation includes overlapping constructs that can affect feeding behaviors including self-control, will power, effortful control, delay of gratification, emotional regulation, executive function, and inhibitory control.

The recommendations also highlight related behaviors such as physical activity, television and other media use (screen time), and sleep, as well as other important considerations including food allergies and food safety for all three age groups (0 to 6 months, 6 to 12 months, and 12 to 24 months).

Applications of the Feeding Guidelines in the WIC Setting

The *Healthy Eating Research* expert panel's feeding guidelines align with all three of WIC's core services, and have the potential for widespread application in the WIC setting. The release of these guidelines provides an evidence-based review of feeding recommendations from the prenatal period to age 2 that WIC providers can use to support current efforts and guide participant counseling and education. Three examples of how the feeding guidelines could be applied in the WIC setting include:

- **Staff training.** WIC employs thousands of professional and paraprofessional staff, all of whom require extensive and ongoing training in order to provide high quality nutrition services to participants. The guidelines can be used in staff trainings by having team members become experts in selected areas and teaching the content to the rest of the team. Additionally, staff can bring in examples of how they have already used these guidelines in their participant counseling, and set a goal for how they will use at least one new guideline in future counseling sessions.
- **Participant Education.** The guidelines provide detailed information that WIC staff could use in the development of nutrition education modules and materials beginning in pregnancy. Sections of the guidelines could be incorporated into lesson plans, participant handouts, and online education modules. The guidelines lend themselves well to goal-setting activities such that participants could identify

a responsive parenting/feeding goal they will practice with their infant or toddler.

- **Breastfeeding support.** The breastfeeding-specific guidelines are of use to all WIC staff providing breastfeeding support to clients, and could be incorporated into the mandatory breastfeeding training required by current federal regulations for all front-line staff. Given WIC's broad reach to the prenatal population, using these materials during the prenatal stage is likely to enhance women's intention to breastfeed.

In addition to aligning with core WIC services, the expert panel guidelines on what to feed, food safety, and food allergies are also highly consistent with the current WIC food packages as well as guidance provided by USDA. As such, the feeding guidelines bolster current WIC practices and create opportunities for WIC staff to use the evidence base in their nutrition education and breastfeeding support activities. The following examples from the feeding guidelines on what to feed demonstrate their consistency with current WIC practices:

- Healthy eating during pregnancy and while breastfeeding, including consuming plenty of vegetables and fruits, will help shape your child's preferences for healthy and nutritious foods.
- Introduce your baby to a wide variety of food from all the food groups (vegetables, fruits, grains, meats/protein, dairy) by the time she/he is 7 or 8 months old.
- Offer your toddler whole grain food, such a whole-wheat bread, whole-wheat pasta, corn tortillas, or brown rice. These food items are rich in fiber, which is often missing from children's diets.
- Mothers who choose to breastfeed are encouraged to continue breastfeeding until their babies are at least 1 year old.

The feeding guidelines also address responsive parenting and responsive feeding, concepts that have significant potential to enhance the nutrition education and breastfeeding support provided in the WIC setting. While the literature on responsive feeding is vast and growing, these guidelines mark the first occasion that a comprehensive set of evidence-based recommendations around responsive parenting/feeding for 0- to 24-month-olds has been assembled in a user-friendly format. They offer a wealth of practical information and provide guidance for WIC staff and participants on how to optimize healthy eating in infancy and toddlerhood taking into account the individual needs of the caregiver-child pair. The following examples from the guidelines on responsive parenting/feeding demonstrate their synergy with current WIC practices:

- Do not pressure your baby to finish the bottle or food on the plate.
- Establish a consistent regular schedule for your baby's meals, snacks, and sleep time. Establishing routines can help your baby set up good habits and learn when to expect to eat.
- It is normal for a child to continue to reject new food items the first time they are offered, especially those that taste bitter such as vegetables. Don't forget that it may continue to take some children up to 15 to 20 tries before accepting a new food.

Conclusion

The feeding guidelines represent an important collection of current evidence on feeding infants and young toddlers, with a unique focus on responsive parenting/feeding practices that align well with the goals of the WIC program. The guidelines are consistent with existing USDA policy guidance for the WIC program, and provide clear evidence-based recommendations that support not only what young infants and toddlers should eat, but also how caregivers can best support the development of healthy eating patterns. The nutrition education and breastfeeding support offered by WIC set the program apart from other food assistance programs. These guidelines represent an important new tool for WIC practitioners nationwide to integrate into existing practices.

Recommendations for Dissemination

The *Healthy Eating Research* expert panel's review of the evidence base on feeding infants and toddlers can be applied in multiple settings. They also need to be disseminated widely among a variety of audiences and organizations.

- Caregivers and children who come to WIC also visit health care providers and early childhood education settings. Two other briefs in this series (*Feeding Guidelines for Infants and Young Toddlers: A Responsive Parenting Approach*, *Guidelines for Health Professionals and Feeding Infants and Young Toddlers: Using the Latest Evidence in Child-care Settings*, both available at <http://healthyeatingresearch.org>) address use of these guidelines in each of these settings. Consistency in messaging across settings is important so that caregivers receive similar messages about what and how to feed their young children from multiple trusted entities.
- WIC programs nationwide already use many of these guidelines in their existing practices. USDA and/or the National WIC Association could disseminate these guidelines broadly through the WIC community to ensure all participants have access to up-to-date guidance on responsive parenting practices that support feeding young infants and toddlers. WIC is known as an evidence-based program built on the foundation of a scientifically-based food package. These guidelines provide yet another opportunity to link WIC practices to scientific evidence.
- Inasmuch as dissemination of these guidelines through the WIC community is successful, sharing creative uses of the guidelines is essential. Current avenues for sharing the guidelines throughout the WIC community include the WIC Works Resource System maintained by the USDA Food and Nutrition Service (<https://wicworks.fns.usda.gov>) as well as the annual conferences of the National WIC Association (www.nwica.org) and the Society for Nutrition Education and Behavior (<https://www.sneb.org>).

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This issue brief is based on the full report of this expert panel. The full list of citations can be found in the full report:

Pérez-Escamilla R, Segura-Pérez S, Lott M, on behalf of the RWJF HER Expert Panel on Best Practices for Promoting Healthy Nutrition, Feeding Patterns, and Weight Status for Infants and Toddlers from Birth to 24 Months. *Feeding Guidelines for Infants and Young Toddlers: A Responsive Parenting Approach*. Durham, NC: Healthy Eating Research, 2017. Available at <http://healthyeatingresearch.org>.

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Appendix 1.

Infant Feeding Guidelines: What to Feed From Pregnancy to One Year

Prenatal & Postnatal

- Healthy eating during pregnancy and while breastfeeding, including consuming plenty of vegetables and fruits, will help shape your child's preferences for healthy and nutritious food.
- Eating fatty fish during pregnancy and while you breastfeed will provide your baby with more omega 3 fatty acids which are needed for the optimal development of her/his brain. Guidelines for safely eating fish during pregnancy and while breastfeeding can be found at <http://www.fda.gov/food/foodborneillnesscontaminants/metals/ucm393070.htm> and <https://www.epa.gov/fish-tech/epa-fda-advisory-mercury-fish-and-shellfish>.

0 to 6 Months

- For the first 6 months (or until the introduction of solid food), most babies only need breast milk (or formula). Breast milk provides nearly all the nutrients needed for optimal growth, and strengthens the infant's immune system. The composition of breast milk changes as your baby grows to match her/his individual nutritional needs. Breastfeeding is recommended to continue until your baby is at least 1 year old.
- It is recommended that exclusively breastfed infants receive a daily supplement of vitamin D (400 IU), since this vitamin is low in breast milk. Infant formulas are fortified with vitamin D. However, if your baby consumes less than 1 liter per day of formula, your doctor may advise a vitamin D supplement for your baby.
- If you are not feeding your baby breast milk, iron-fortified formula is the next best choice to satisfy your baby's nutritional needs during the first six months of life. Do not feed low-iron formulas (those that have less than 6.7 milligrams of iron per liter) to your baby.
- Newborns consume about 1 to 2 ounces of formula per feeding occasion during the first month of life. This amount increases to about 2 to 3 ounces per feeding during the second month, and then gradually increases to 4 to 6 ounces by 5 months. Pay attention to your baby's hunger and fullness signals and never pressure her/him to finish the bottle. Your baby does not need to finish the formula in the bottle.
- Be cautious about the volume of formula or expressed breast milk given at each feed. Studies have shown that bottle size matters. The bigger the bottle used, the more likely the baby will be to consume more than needed.
- It is not recommended to offer fruit juices or sugar-sweetened beverages before your baby's first year of life.
- Only breast milk or formula should be fed with a bottle to babies. Don't add cereal to the milk in your baby's bottle. This practice will not improve the sleep of your baby at night and it may interfere with how well nutrients in breast milk or formula are absorbed.

6 to 12 Months

- When your baby is between 4 and 6 months old, pay attention to her/his developmental signs to find out if your baby is ready to start eating solid food. Signs your baby is ready include sitting up unsupported, munching and chewing food, and the ability to swallow food, grasp items, and bring food to her/his mouth. If your baby pushes solids out with her/his tongue when food is offered (thrust reflex), and/or gags when a spoon or food is placed in her/his mouth then she/he is not yet ready to be introduced to solid food.
- Sometime between 4 and 6 months (when your baby is developmentally ready) your baby's nutritional needs can no longer be met by breast milk or formula alone. At this time, gradually start introducing solid food by offering 1 to 2 teaspoons of a pureed or mashed food, slowly increasing the amount while paying attention to your baby's hunger and fullness signals. If your baby is still hungry after consuming the small amount of solids recommended, then feed breast milk or formula.
- Mothers who choose to breastfeed are encouraged to continue breastfeeding until their babies are at least 1 year old.
- From 6 to 12 months, breast milk or formula continues to be the most important source of nourishment for your baby. Solid food needs to be introduced gradually. Solid food will initially provide about one-third, increasing to over half, of the total calories that your baby needs by the time she/he is 1 year old. Examples of the amount of solids needed between 6 and 12 months can be found at: http://www.fns.usda.gov/sites/default/files/cacfp/CACFP_infantmealpattern.pdf.
- Exclusively breastfed babies need to get started on solid foods that are rich in iron and zinc sometime between 4 and 6 months, because by that time breast milk does not provide enough of these nutrients. Iron-zinc fortified baby cereals or pureed/mashed meats are recommended as first solid foods for exclusively breastfed babies. In general, about 2 servings per day of cereal (2 tablespoons/serving) OR 1 to 2 ounces of meat per day is recommended to meet the need for these nutrients. However, each baby needs different amounts to start. Pay attention to your baby's hunger and fullness signals to find out how much your baby needs to eat.

6 to 12 Months (cont.)

- If you choose to formula feed, it is recommended that you give your baby formula fortified with iron and zinc. The gradual introduction of solid food to your baby sometime between 4 and 6 months of age is important because it supports her/his ability to learn to eat a variety of healthy food with different textures and flavors. Introduction of solid food also helps with your baby's development, including social skills.
- After introducing iron- and zinc-fortified baby cereals or mashed meats, there is no particular order to follow for introducing solid food. At this point, your baby is able to digest and absorb the nutrients from healthy food belonging to different food groups. However, it's important to keep in mind that the earlier vegetables are introduced (once your baby is ready to consume solid food), the more she/he is likely to easily accept them.
- When introducing a new vegetable, it is recommended to mix it first with a familiar food such as breast milk, formula, or cereal. Combining new food items that are more difficult to accept by babies, such as some vegetables, with food they are already familiar with can help your baby accept and learn to like vegetables more readily.
- Introduce your baby to a variety of food from all the food groups (vegetables, fruits, grains, meats/protein, dairy) by the time she/he is 7 to 8 months old.
- Offering a variety of vegetables and fruits and avoiding food of limited nutritional value, such as those high in calories, sugar, salt, and fat (e.g., French fries, sugary cereals, cookies), helps your child gain a healthy amount of weight.
- What your baby eats at around 9 months is indicative of what she/he will like to eat when school-aged. Offer your baby a variety of vegetables and fruits and whole grain products (e.g., brown rice, whole grain cereals).
- It is important to introduce your baby to a large variety of vegetables and fruits prepared in different healthy ways and textures before she/he turns 1 year old. This will expose your baby to an array of flavors and textures that will make it easier for her/him to accept and learn to like healthy food from all the food groups (fruits, vegetables, whole grains, dairy, and protein). Your baby will also learn to self-control the desire for unhealthy food that has excessive amounts of added sugars, sodium (salt), saturated fat, and calories.
- Sometime between 6 and 8 months, introduce your baby to pureed or mashed food, and gradually transition into lumpy food and soft finger food. Then, between 8 and 12 months, your baby can start eating minced, chopped food and hard finger food. Experiencing different textures will help your baby with her/his chewing skills, and with learning to accept and like different healthy food. Encourage your baby to self-feed as soon as she/he is ready.
- Between 6 and 11 months, babies eat about every two to three hours or about five or six occasions during the day.
- Besides offering 6 to 8 ounces of breast milk or iron-fortified formula, at each meal you can offer your baby:
 - Up to 4 tablespoons of iron-fortified infant cereal or protein foods (meats, eggs, legumes) or dairy foods such as cottage cheese (up to 4 ounces), cheese (up to 2 ounces), or yogurt (up to 8 ounces)AND
- Up to 2 tablespoons of vegetables or fruit
- For a smaller meal or snack you can offer breast milk or formula (2 to 4 ounces), AND:
 - Up to ½ slice of whole grain bread or up to 2 whole grain crackers, or up to 4 tablespoons of iron-fortified infant cerealAND
- Up to 2 tablespoons of vegetables or fruit, or a combination of both
- Once your baby starts solid food, it is recommended to offer a total of 4 to 8 ounces per day of plain drinking water in a cup. This will help your baby get familiar with the taste and to learn to like plain water.
- When preparing food for your infant, do not add salt or sugar. Likewise, when choosing baby food that is already prepared, choose options without (or with limited amounts of) added salt or sugars. This will help your baby learn to like the natural flavors of food and help your child avoid consuming excessive amounts of salt and sugar later on in life.
- Feed your baby only healthy food that provides plenty of vitamins, minerals, and fiber, including fresh vegetables, fruits, and age-appropriate whole grain products. Also, make sure to feed your baby nutritious food that provides an adequate amount of protein (such as eggs, fish, meat) and energy.

Foods to Avoid or Limit

- Cow's milk should NOT be offered before the child turns 1 year old because it may cause intestinal bleeding.
- Plant-based beverages (e.g., soy, rice, almond milks) are NOT recommended for your child in place of breast milk or formula, unless prescribed by your pediatrician (e.g., commercially prepared soy-based infant formula). These beverages are not designed to meet the nutritional needs of your child to the same extent as breast milk or infant formula.
- It is recommended to offer mashed fresh fruits instead of fruit juices since they have a higher nutritional value. Also, keep in mind that fruit juices and sugar-sweetened beverages are a concentrated source of calories that may displace other food with better nutritional value, or discourage your baby from eating other nutritious food that is not sweet. AVOID introducing fruit juices during the first year of life. Avoiding sugar-sweetened beverages can also help prevent dental cavities.
- It is strongly recommended to offer NO sugar-sweetened beverages such as flavored drinks (including Kool-Aid, fruit drinks, sodas, horchata (sweetened rice water), sports drinks, sweetened teas, or any other sugar-sweetened beverages) to your baby during the first year of life. Doing so could reinforce your baby's strong preference for sugary food and beverages and make it more difficult for her/him to learn to like healthy food such as vegetables, fruits, and plain water.
- Before choosing food for your baby, check the food label and ingredient list. Choose food with no or very limited amounts of added sugars and sodium (salt).
- Honey should NOT be given to children under 12 months old since it may cause a serious condition known as botulism.
- Supervise your child during feeding time and avoid offering food items that are a choking hazard such as nuts, grapes, popcorn, hot dogs, and hard candies.

Spoon, Cup, and Self-Feeding

- Between 6 and 12 months, it is recommended to transition infants from using a bottle to a cup.
- By 12 months, your baby should be able to spoon feed herself/himself and hold a cup with both hands.
- At around 6 months, you can use a baby spoon to start offering pureed food, and water in a sippy cup held by an adult.
- At around 8 months, your baby will start to try to spoon-feed by herself/himself, and she/he most likely will be able to drink from a cup with less spilling.
- Babies prefer to use their hands to explore solid food. Although this is messy, it allows the child the opportunity to explore and learn to like healthy food. Encourage your baby to self-feed.

Appendix 2.

Toddler Feeding Guidelines: What to Feed During the Second Year of Life

Developmentally Appropriate Feeding

- One- to 2-year-olds have small tummies and can only eat small portions at a time, so they should eat five to six times a day (this can be from meals and healthy snacks). Sliced fresh fruit (e.g., apples, peaches, strawberries), cooked vegetables or vegetables with dip (e.g., carrots, broccoli, peas), and whole grain crackers with cheese are all good ideas of healthy snacks.
- By 1 year of age, children need about 1,000 calories every day. However, each child has different needs, so pay attention to her/his hunger and fullness signals. Examples of healthy meal patterns that provide adequate amount of nutrients and calories for 1- to 2-year-olds can be found at: http://www.fns.usda.gov/sites/default/files/cacfp/CACFP_childadultmealstandards.pdf.
- Once your child is 1 year old, structure eating occasions—she/he needs to eat three meals and two to three healthy snacks at about the same time every day. Following a regular schedule will help your child learn when and what to expect to eat during the day. However, don't worry if your child decides to skip a meal or snack. What is important is for you to remember to offer the food and let her/him decide how much she/he wants to eat.
- As much as possible make sure that your child's meals are part of your family meals. Toddlers learn to eat table food and socialize during family meals.

Milk

- The American Academy of Pediatrics recommends giving pasteurized whole cow's milk to 1- to 2-year-olds. However, your health care provider may recommend pasteurized reduced fat milk (2%) instead if there is a family history of obesity or heart problems.
- Offer cow's milk with no added sugars (e.g., no flavored milks). Added sugars may interfere with the development of your toddler's preferences for healthy food (such as vegetables and fruit) and may cause oral health problems, including dental cavities, and lead to extra calorie intake.
- Give your toddler cow's milk in a cup instead of a bottle. Offering milk in a cup instead of a bottle can help your toddler improve his/her motor skills.
- Too much milk may decrease your toddler's appetite for other food needed to meet nutritional needs. Keep your child's total milk consumption to no more than 2 cups (16 fluid ounces) per day while offering a variety of healthy food.
- At each meal, or as part of a snack, offer your toddler $\frac{1}{2}$ cup (4 ounces) of milk.
- You can offer $\frac{1}{2}$ to $\frac{3}{4}$ cup of yogurt in place of milk during meal or snack times, but serve only plain yogurt or yogurt without excessive total sugars (no more than 23 grams per 6 ounces). Plain yogurt can be mixed with fruits to increase its acceptance by your toddler.
- It is fine to continue breastfeeding beyond one year if desired by parent and child. The frequency of breastfeeding and how long each nursing episode lasts typically decreases quite a bit during this time as your child consumes more solid food.
- Bottle feeding is strongly discouraged after 12 months. Try to wean your child from the bottle by the time she/he is 1 year old. Doing so will reduce the risk of dental cavities and other dental problems later on.

Water, Fruit Juice, and Sugar-Sweetened Beverages

- Water is the best option to quench your child's thirst. Your toddler needs about 2 cups of water per day to cover her/his fluids needs. Use a cup to offer water. Do not serve sugar-sweetened beverages (e.g., soft drinks, sports drinks, fruit drinks, energy drinks, sweetened teas). Your toddler is still learning to accept and like healthy food and beverages, and consuming sugar-sweetened beverages can interfere with this process.
- Whenever possible, offer fresh fruit instead of 100% fruit juice to your toddler since whole fruit provides less sugar and more fiber than juice. Avoid fruit canned in heavy syrup or with sugar added. Excessive fruit juice and fruit with added sugar can displace other nutritious food and lead to dental cavities.
- If you decide to offer 100% fruit juice to your toddler, limit intake to no more than 4 ounces per day and offer it with a cup, not a bottle.
- Don't put your toddler to sleep with a bottle or sippy cup. This can cause dental cavities and other oral health problems.

Dietary Diversity

- Plan meals and snacks to provide a variety of healthy food from all food groups (fruits, vegetables, meats/protein, dairy, whole grains).
- Multivitamins are not needed if your child is eating a healthy nutritious diet. If your doctor or health care provider recommends giving multivitamins to your child, choose brands that are low in sugar. Talk to your dentist if you don't know which ones are low in sugar.
- Include a variety of vegetables, especially dark green, red, and orange types. These vegetables are rich in many nutrients that are difficult to get in adequate amounts from other food. Exposure to a variety of vegetables will also help your child learn to like vegetables. Offer $\frac{1}{4}$ to $\frac{1}{2}$ cup of vegetables at most eating occasions.
- Offer a variety of fruits of different colors. Offer your child $\frac{1}{4}$ to $\frac{1}{2}$ cup of fruit at each eating occasion.
- Provide a variety of poultry, fish, meats, and meat alternates (e.g., beans, lentils, tofu) to your toddler. Offer $\frac{1}{2}$ to 1 ounce of poultry, fish, meat or meat alternate at most meals and snacks. Avoid feeding your toddler food that is high in sodium (salt) such as processed meats like ham, lunch meats, and packaged breaded chicken and fish.

Snacks

- Offer only nutritious snacks to your toddler. Remember that at this age, snacks are a very important source of nutrients for growth and development and help to shape eating habits for life. At most snacking occasions, include a fruit or a vegetable combined with food from the grain or dairy group.

Whole Grains and Fiber, Omega 3 Fatty Acids

- Offer your toddler whole grain food, such as whole wheat bread, whole wheat pasta, corn tortillas, or brown rice. These food items are rich in fiber which is often missing from children's diets. Offer $\frac{1}{2}$ to 1 slice of whole grain bread, or $\frac{1}{4}$ to $\frac{1}{2}$ cup of whole grain cereal or pasta at most meals and snacks.
- Offer your toddler deboned fish such as salmon, white tuna, and trout. Fish is a good source of healthy fats known as omega 3s that are very important for brain development.
- Choose food for your toddler prepared with healthy oils, such as olive, canola, corn, or sunflower oil.

Limit Sugar and Sodium and Avoid Trans Fats

- Avoid adding too much salt or sugar to your toddler's food. Otherwise your child will develop a strong preference for salty and sweet food and beverages. Remember that the food that you prepare can be seasoned with natural herbs and spices (e.g., basil, oregano, cumin, chili, ginger) instead of salt, sugar, honey, and other sweeteners.
- Read food labels and the list of ingredients when choosing already prepared food for your toddler. Avoid food that has high amounts of any type of added sugars, including high fructose corn syrup (e.g., sugar-sweetened beverages like Kool-Aid, sodas, sports drinks) or sodium (e.g., packaged macaroni and cheese) or that contains any amount of trans fats (e.g., French fries). The American Heart Association and the Academy of Nutrition and Dietetics both recommend that children under 2 years old should not consume any added sugars from food or beverages.
- Limit your toddler's consumption of snacks high in sodium and with added sugars. Remember that your toddler is still learning to develop eating habits for the rest of her/his life.

Appendix 3.

Responsive Parenting/Feeding Guidelines for Caregivers: How to Feed in the First 6 Months

Responsive Feeding; Hunger and Satiety Cues

- Responsive feeding involves recognizing and understanding your baby’s hunger and satiety cues and associated behaviors and responding accordingly through a warm and nurturing relationship.
- Babies are born with a natural ability that helps control their appetite. It’s important for you to learn how to interpret and respond accordingly to your baby’s hunger and fullness signals. Being able to do that takes some learning.
- Misinterpreting your baby’s hunger and fullness signs can reduce your baby’s ability to self-control her/his appetite and lead to overeating as she/he grows up.
- Help your baby learn to eat only in response to hunger and stop when full, so that she/he doesn’t learn to eat for reasons other than hunger.
- Crying by itself cannot be interpreted as a sign of hunger. Additional cues that may indicate that your baby is hungry at this age are: bringing hands to mouth, rooting reflex (ability that babies are born with to help with breastfeeding; it involves turning their heads toward anything that strokes their cheek or mouth), sucking noises, fast breathing, clenching fingers, flexing arms and legs.
- Although many parents interpret crying as a sign that the baby is hungry, it is important to remember that babies cry for many reasons—they may be wet, uncomfortable, or tired.
- When your baby cries, before offering food, try to soothe to calm her/him down and first check for things that are making your baby uncomfortable. Doing this may help you avoid overfeeding your baby or setting up the expectation that crying will always lead to feeding.
- Your baby will let you know when she/he is full and no longer wants to eat. For example, at this age she/he may push you away, stop sucking, extend or relax her/his arms, legs, and fingers, or simply fall asleep.
- Babies have tiny stomachs, so they need to feed often throughout the day.

Baby’s Wake/Sleep Cycles

- Parents may feel overwhelmed when their babies cry or seem fussy.
- During a typical day between 4 months and 1 year, a baby sleeps from 12 to 16 hours distributed across frequent wake/sleep cycles.
- During the first month of life, it’s normal and part of healthy development for babies to wake up three or more times at night, and sleep for short periods of time during the day.
- As your baby approaches 6 months, it’s normal for her/him to sleep through the night.
- As your baby grows, she/he will sleep for longer periods of time during the night. However, at times your baby’s sleep patterns may fluctuate. She/he will typically get back on track, so be consistent with how you respond to your baby’s waking at night.
- Strategies recommended for responding appropriately to night waking include: waiting a minute to see if baby settles on her/his own and then going in and trying soothing techniques besides feeding if not showing hunger signs (lengthening the wait time as the child develops); feeding if hungry; making nighttime visits short and relatively “quiet” so that the baby doesn’t expect stimulation time in the middle of the night.

Soothing Techniques to Calm a Baby

- Use soothing techniques to calm a crying baby, such as rocking, swinging, swaddling, repeating a word, shushing, or changing her/his environment.
- Some, but not all, babies may need a pacifier to calm down.
- If your baby was recently fed and is crying or fussy make sure to check for things that are making her/him uncomfortable, such as a wet diaper, and try to calm her/him down using soothing techniques.

Temperament

- Knowing your baby's temperament and causes of fussiness can help you to interpret the soothing and feeding needs she/he is communicating, and help your baby develop and grow well.
- Your baby's fussiness is not always related to hunger. For example, it may be related to being wet, too warm or cold, tired, overstimulated, teething, or being ill.
- Some babies have a fussier personality or temperament than others or experience times that they are more fussy than usual. Fussiness could be interpreted as a baby being hungry when it's not, and could lead to overfeeding.

Pressure to Finish a Feed

- Don't force your baby to finish the bottle or continue eating from your breast, since this will interfere with the baby's natural ability for appetite control down the road. Remember that your baby knows when to stop feeding.

Bottle Use

- Be cautious about the volume of formula or breast milk given at each feed. Studies have shown that bottle size matters. The bigger the bottle used, the more likely babies will be fed more than what they need.
- It is not recommended to mix cereal with formula or breast milk in a bottle. There is no evidence that this helps babies sleep longer and it could be a choking hazard.
- Feeding cereal in a bottle can diminish your baby's ability to regulate her/his appetite resulting in overfeeding and gaining weight excessively.
- Feeding cereal in a bottle to infants 0 to 6 months may cause discomfort as their tummies may not be ready for the cereal.
- Do not practice "bottle propping" (leaning the bottle against a pillow or other support at the stage when babies cannot hold the bottle on their own). This practice is an example of nonresponsive feeding.
- You should not put your baby to bed with a bottle. This practice can affect the health of the baby's teeth and is an example of nonresponsive feeding.

Introduction to Solid Food

- It is not recommended to introduce solid food before baby is 4 months old as the baby's body is not ready and this adds unnecessary calories to her/his diet.
- Infants should be fed only breast milk and/or formula for about 6 months. However, babies may be ready to be introduced to solid food between 4 and 6 months if they are able to sit with good head control and showing other signs of readiness.
- Babies are likely to be ready to be introduced to solid food if they can sit up well with little or no support, have good head control, do not automatically push solids out of their mouths, and are able to munch and swallow. They may also show interest in food, including trying to grab it and put it in their mouths.

Feeding Environment

- Feed your baby in a pleasant environment where you can interact warmly with your baby.
- Do not pressure your baby to finish the bottle or food on the plate.
- Do not give a bottle or food to your baby as a reward for behaving the way you want. Only offer food in response to your baby's hunger signals.
- Do not feed your baby in front of the TV. Meals should be a bonding and social occasion where both parent and baby benefit from the nurturing interactions that occur during a feed.
- Remember to interact warmly and to be responsive to your child's behaviors while feeding.
- Avoid distractions while feeding your baby, including using your smartphone. Your baby requires your full attention and interaction while eating.

Appendix 4.

Responsive Parenting/Feeding Guidelines for Caregivers: How to Feed During 6 to 12 Months

Responsive Feeding, Meals, and Sleeping Routines

- Expect that at around 6 months your baby will be able to sit, chew, and swallow semi-solid food. These are skills your baby needs to have before starting to eat solid food.
- Sometime between 6 and 12 months your baby will be able to self-feed either with a spoon or by holding age-appropriate finger food. Encourage your baby to do so.
- From 6 to 12 months, continue following your baby's hunger and fullness signals. Remember that adequately responding to her/him in a prompt and caring way will help your baby develop healthy eating habits.
- While paying attention to your baby's hunger and fullness signs, keep in mind that your baby's appetite may change during periods of fast growth or when she/he is feeling sick.
- Hunger signs for 6- to 12-month-old babies include opening mouth when spoon gets near; reaching for the spoon or food; pointing to food; getting excited when food is presented; and expressing a desire for specific foods with words or sounds.
- Fullness signs for 6- to 12-month-old babies often involve shaking of their head, turning head away from food, and not opening mouth when spoon is close to indicate that no more food is desired.
- Establish a consistent regular schedule for your baby's meals, snacks, and sleep times. Establishing routines can help your baby set up good habits and learn when to expect to eat.
- Actively engage in conversations with your baby while feeding her/him and as you change routines throughout the day. Explain to your baby what you are doing and what is coming next, and warmly respond to his/her verbal cues. These interactions will help her/him to understand expectations and facilitate transitions.
- By 6 months, many babies sleep longer periods of time during the night, but they may still wake up. During night awakenings, first give your baby an opportunity to self-soothe back to sleep before picking her/him up. If this does not work, before feeding try using other soothing strategies that work for your baby.
- If your baby does not seem to be hungry during night awakening, check for things that may be making her/him uncomfortable and soothe her/him to help her/him go back to sleep. Remember to keep night awakenings short and quiet.
- When your baby cries try to use soothing strategies to calm her/him down such as: (1) swaddling, (2) side or stomach position while awake, (3) shushing, (4) swinging, and (5) sucking from a pacifier.

Mealtime as a Pleasant Experience

- Make sure to create a comfortable, stress-free, caring environment with few distractions when your child is eating.
- Make mealtime a pleasant experience for you and your baby. Talk warmly to your baby during feeding, and respond to her/his sounds or words. Encourage, but don't force, your baby to eat.
- Your baby will learn that you understand and will respond to her/his hunger and fullness signs. This will help you in building a positive trusting relationship with your baby.
- Make your baby's eating experience part of family meals. Preparing healthy meals for the whole family will introduce your baby to these food items.
- During family mealtimes, place your child seated facing the other family members so that she/he has an opportunity to interact with them.

Introducing Your Baby to Different Flavors and Textures Using Responsive Feeding

- From around 6 months to 12 months, your baby will progress from assisted feeding to self-feeding. During this time offer your baby food of different flavors and textures.
- Take your time feeding your baby, and be patient while offering new healthy food. Don't give up if your baby doesn't accept the food the first time you offer it. Try again during a different eating occasion. It may take as many as 15 to 20 tries before your baby learns to like a new food.
- Eating habits are established early in life, so it is important that parents only offer healthy food to their babies. Offer your baby a variety of soft/cooked vegetables, fruits, and other healthy food with different flavors and textures so that she/he learns to like them.
- Provide healthy, tasty food that is appropriate for your child's age at regular times and in a pleasant environment, and let your baby decide how much she/he wants to eat.
- Support your baby's attempts to self-feed. Let your baby explore different food items and tastes with her/his hands. This is messy but very important for your baby to develop healthy eating habits.
- When introduced to new food, some babies will make "faces" that look like they do not like the food. This is a normal part of learning to like new food and does not mean your baby will dislike the food. Be patient and keep offering the food.
- Remember that it may take more tries for your baby to learn to like vegetables than other healthy food like fruits. Continue offering a variety of vegetables and other healthy food, and let your child decide when she/he is ready. The most important thing is that you keep offering vegetables. Be patient and keep trying.

Parental Role Modeling

- Babies imitate their caregivers. Eat a variety of healthy food in front of your baby, and always show a positive attitude towards healthy food.
- Never force your baby to eat. Let her/him choose what and how much she/he wants to try and eat.
- Correctly interpreting hunger and fullness signs will allow your baby to learn how much food she/he needs to consume, and prevent her/him from eating for reasons other than hunger.

Do Not Practice Restrictive Feeding with your Baby

- Some parents may be concerned about their babies not gaining enough or gaining too much weight. Trust your baby's hunger and fullness cues. Work with your pediatrician to resolve any weight gain concerns.

Screen Time and Physical Activity

- Avoid TV and other screen time during mealtimes. This can interfere with the opportunity for the baby, you, and other members of the family to socialize and interact with each other. These interactions are very important for your baby's development and in the establishment of healthy eating habits.
- Engage in fun, developmentally appropriate active play with your baby every day.
- Provide supervised times during the day for your infant to freely move and explore the world around her/him.

Establishing Sleep and Feeding Routines

- It may take some time for you and your baby to establish a sleep and feeding routine. Once it happens, it's important to be consistent as having regular schedules can help babies be less fussy and develop healthy sleeping and feeding patterns.
- Expect normal growth spurts that may temporarily disrupt your baby's regular schedule. Teething near 6 months of age may also be temporarily disruptive. Try keeping your baby's sleep and feeding routines as consistent as possible but be sensitive to your baby's needs during these transition times.

Appendix 5.

Responsive Parenting/Feeding Guidelines for Caregivers: How to Feed During 12 to 24 Months

Responsive Mealtime Routines

- Establish a feeding routine for your child's meals and snacks. Children of this age usually consume three meals and two or three healthy snacks every day.
- Meal and snack time should be a pleasant experience for your toddler. Take the time your child needs to have a non-rushed and enjoyable mealtime or snacking experience in a stress-free environment with few distractions (e.g., without TV or other distracting screens).
- Eat with your toddler and let her/him be part of family meals. Talk to your toddler during meals and respond to her/his verbal and non-verbal requests. Continue to pay attention to hunger and fullness signs. Don't pressure your toddler to finish her/his plate.
- Provide a healthy food environment at home for your toddler. Offer healthy meals and snacks to the entire family and don't have unhealthy food around her/him, including sugar-sweetened beverages, sweets, salty snacks, and fried food/snacks.
- Screen time and media use during feeding is strongly discouraged since it can interfere with the caregiver-child interactions that your toddler needs to experience in order to learn to eat healthy.

Self-Feeding and Transitioning to Table Food

- Let your child self-feed with age appropriate utensils such as baby spoons, toddler plates, and child size cups (e.g., sippy cups). This is important for your toddler's fine motor skills development and allowing her/him to decide when to start and stop eating in response to her/his own hunger signals.
- By 1 year, your child is expected to have started transitioning into "table or family food" (non-pureed food items, such as chopped cooked spinach, cooked green peas, diced cooked carrots, diced fruits, small bits of chicken, pasta, etc.). Your child should be fully transitioned to "table or family food" by 2 years.

Learning to Like Healthy Food

- During the transition to family food, continue to expose your baby to healthy food including plenty of vegetables and fruits, and avoid offering unhealthy food such as sugar-sweetened beverages, sweets, salty food/snacks, and fried food/snacks that are high in added sugars, calories, and/or salt.
- It is normal for a child to continue to reject new food items the first time they are offered, especially those that taste bitter such as vegetables. Don't forget that it may continue to take some children up to 15 or 20 tries before accepting a new food.
- Let your child use all her/his senses to explore new food. Smelling, licking, touching, and playing with new foods is needed by children to learn to like them. It does take time, and patience with messiness.
- Picky eating, including wanting just a few food items, is a common behavior among toddlers. During this period, children go through major transitions in what and how they like to eat. Sometimes they even start refusing food they once liked (food jags). Be patient with your toddler. Continue to uphold feeding routines, provide a variety of healthy food and textures, and encourage her/him to try new foods or accept again food they previously liked. But do not pressure her/him, and continue allowing her/him to determine how much to eat.
- Children learn from observing their caregivers' behaviors. Caregivers and the family as a whole (as young children will model older children as well as caregivers) are strongly encouraged to always eat healthy food and beverages (both inside the home and when eating out). It's also important to avoid making negative comments, facial expressions, or reactions about healthy food and beverages in front of your child.
- Offer healthy food in a form appropriate for your child's age, and in a manner that is easy to chew and swallow.

Appetite Control and Pressure to Eat

- Children may eat less at one meal but compensate at another meal by eating more. Indeed, some 1-year-olds only eat a single larger meal per day with smaller amounts at other times. Offer your child the recommended portion of healthy food from the different food groups (fruits, vegetables, grains, proteins, dairy) at each meal, and let her/him decide how much to eat.
- Don't pressure your toddler to eat, and don't show signs of frustration or anger if your child decides not to eat the food that you offer her/him. There is always a next time to try to offer the new food again.
- To minimize food waste, offer small tastes when new food is offered. You can always give more to your child if she/he is still hungry. Also, if you are having a problem with fresh fruits and vegetables going bad before being consumed, consider using frozen fruits and vegetables.
- Praising your child for eating a healthy food may encourage her/him to learn to like it. However, it is not recommended to use food as a reward (e.g., giving candy as a reward for eating vegetables or for the child to stop crying) or "bribe" (e.g., offering a toy in exchange for finishing all the food on the plate). Doing this can interfere with your child's ability to learn how to control her/his appetite.
- Offering sweets or sugar-sweetened beverages may be very tempting when your child is crying a lot or having a tantrum. Avoid doing so as it may prevent your child from learning how to eat healthy and also control her/his own emotions.

Sleep Routines

- Set consistent bedtime and nap routines. From 12 to 24 months, children sleep between 11 to 14 hours per day, including at night and naps. Children should be able to sleep throughout the night by this point. Children that have enough sleep are more likely to eat and grow healthy.

Screen Time and Physical Activity

- From 12 to 24 months, screen time and media use should be limited as it can prevent your toddler from being physically active and eating healthy. Also remember that your child's language and social development is greatly facilitated by the social interactions that you have with your child, including conversations.
- Video-chatting with relatives away from home can provide benefits to the development of your child if you or another adult caregiver supervises the child.
- If you want to use digital media with your 18- to 24-month-old toddler choose high-quality programming/apps and use them together with your child. Don't let your child use the media by herself/himself.
- Do not expose your toddler to screens during meals and for one hour before bedtime.
- Avoid using media to calm your child.
- Keep bedrooms, mealtimes, and playtimes screen-free for you and your child.
- Avoid exposing your toddlers to apps with advertising and/or unhealthy messages.
- Caregivers are encouraged to be role models to their toddlers by limiting their own media use during those times when they are interacting with them.
- Provide opportunities for your toddler to be active throughout the day every day, with structured (adult-guided) and unstructured (free play) activities taking place both indoors and outdoors where she/he can move and play freely and safely. Play, walk, dance, be active with your child and let her/him do physical activities on her/his own. Remember that toddlers like to move around independently but still need close supervision when doing activities on their own.
- Toddlers are very energetic, moving constantly; they like to explore their environments, looking around and inside objects. Daily and frequent age-appropriate, supervised, safe activities including jumping, walking, and pushing things around, throwing balls, and dancing to music help toddlers release their energy. These activities also help with their motor development.
- Equipment that limits or controls a child's movements, such as car seats, high chairs, cribs, small playpens, and strollers, should be used only for what they were designed to do (safety, transportation, eating, sleeping) and not simply for confining the child to a space.

Appendix 6. Food Safety for Infants and Toddlers

Food Safety Guidelines for Caregivers of Infants and Toddlers: Preventing Foodborne Illnesses

PASTEURIZATION AND COOKING TEMPERATURES

- Do not offer your child unpasteurized juice, milk, or dairy products.
- Do not offer your child undercooked meats, poultry, eggs (e.g., runny eggs), or seafood. Recommended cooking temperatures can be found at http://www.fsis.usda.gov/wps/portal/food-safety-education/get-answers/food-safety-fact-sheets/safe-food-handling/safe-minimum-internal-temperature-chart/ct_index.

FOUR STEPS TO KEEP FOOD SAFE FROM BACTERIA

- Always follow these four steps to keep food safe from bacteria:
 - CLEAN: Wash hands and food preparation/serving surfaces often. Fruits and vegetables should be thoroughly rinsed with warm water before offering to child.
 - SEPARATE: Keep raw meats, poultry, eggs, and fish separate from other ready-to-eat food.
 - COOK: Cook food to the proper internal temperatures (<https://www.foodsafety.gov/keep/charts/mintemp.html>).
 - CHILL: Keep cold food in the refrigerator and get other food into the refrigerator within two hours of being opened or prepared. More information available at: <https://www.foodsafety.gov/keep/index.html>.

COLD STORAGE GUIDELINES

- The following cold storage guidelines should be followed:
 - Expressed breast milk at https://wicworks.fns.usda.gov/wicworks/Topics/FG/Chapter3_Breastfeeding.pdf, <http://www.cdph.ca.gov/programs/wicworks/Documents/NE/WIC-NE-EdMaterials-PumpingAndStoringBreastmilkForYourBaby.pdf>*
 - Infant formula at https://wicworks.fns.usda.gov/wicworks/Topics/FG/Chapter4_InfantFormulaFeeding.pdf, <http://www.cdph.ca.gov/programs/wicworks/Documents/NE/WIC-NE-EdMaterials-WhenYouFeedMeFormula.pdf>
 - Strained fruits and vegetables (prepared at home or from open jarred food): should be kept a maximum of two to three days in the refrigerator.
 - Strained meats (prepared at home or from open jarred food) and eggs: should be kept a maximum of one day in the refrigerator.
 - Meat and vegetable mixed dishes: should be kept a maximum of one to two days in the refrigerator.
 - The refrigerator temperature should be kept between 32 to 39 degrees Fahrenheit.

HANDLING OF LEFTOVERS

- At each feeding occasion, serve the portion that your child is likely to eat separate from the jar or bowl. This way you can avoid the unconsumed portion getting mixed up with your baby's saliva, and save for a future feeding. Discard any unconsumed food that was part of the portion offered to the child.
- Always throw away any leftover formula or breast milk. Leftover formula or breast milk that has not been refrigerated can grow germs and make your baby sick. Do not feed your baby breast milk or formula left at room temperature for more than one hour.

Note: Adapted from FoodSafety.gov (<https://www.foodsafety.gov/risk/children/>).

*On January 17, 2017, the CACFP changed the refrigerator storage regulation of expressed breast milk from 48 to 72 hours. These changes were made after the expert panel's full report was finalized. <https://www.fns.usda.gov/sites/default/files/cacfp/CACFP06-2017os.pdf>

Food Safety Guidelines for Caregivers of Infants and Toddlers: Preventing Mouth Burns

- When microwaving solid food, do so in a dish and for short time intervals (e.g., test after 15 seconds on high). Let food stand for 30 seconds after microwaving and before offering to child; stir before serving.
- Before serving cooked food or re-heating solid food for your child, always test the temperature of the food to be offered. They should feel lukewarm.
- There is no medical reason for warming expressed human milk or formula. If you do so, don't warm by microwaving bottles with breast milk or formula. They don't heat evenly and can burn your child's mouth.
- You can heat bottles with breast milk or formula by putting the bottle under hot running water from the tap for about two minutes. You can also heat bottles by warming water in a pan on the stovetop, then removing it from the heat and putting the bottle in the water until it feels lukewarm.

Note: Adapted from FoodSafety.gov (<https://www.foodsafety.gov/risk/children/>) and California WIC Program (https://wicworks.fns.usda.gov/wicworks/Sharing_Center/spg/CA_report2006.pdf).

Food Safety Guidelines for Caregivers of Infants and Toddlers: Preventing Food Choking

- Supervise your infant during feeding time and avoid offering food items that are a choking hazard.
- Toddlers can choke on food items that have certain shapes (small and round) and/or textures (hard, very slippery or elastic). Examples of common choking hazards are grapes, nuts, peanuts, popcorn, hard candy, carrots, hot dogs, meatballs, and chewing gum. Avoid offering these food items, or cut the round food in half or quarters before serving.
- Sit your child in a high chair or secure to a seat for meals and snacks and supervise her/him at all times while eating. Remember that eating while walking may increase risk of choking.
- If you offer fish to your toddler, which is strongly recommended, make sure it's completely deboned.

Note: Guidelines adapted from AAP Committee on Nutrition (2013).

Appendix 7. Food Allergy Considerations for Infants and Toddlers

- There is no need for pregnant or breastfeeding women to avoid consuming common allergenic food items such as eggs, milk, peanuts, tree nuts, fish, shellfish, and wheat. Doing so does not help lower the risk of food allergies in children.
- If the biological parent has allergies to any food items, talk to your child's doctor about any precautions you need to take regarding the introduction of common allergenic food items (such as products with peanuts, eggs, dairy, or wheat) to your infant.
- Ask your child's doctor if you are considering using hydrolyzed or "hypoallergenic" infant formulas as these formulas have not been found to help prevent food allergies in infants.
- You can introduce common allergenic food items to your baby when she/he is ready to eat solid food (usually between 4 and 6 months of age). These food items include dairy products such as yogurt or cow's milk protein formula, eggs, soy, wheat, peanut butter, fish, and shellfish.
- Introduce common allergenic food items to your baby after other solid food has been fed and tolerated, and with the first taste being at home. If no reaction occurs, then you can gradually increase the amount at a rate of one new food every three to five days.
- You do not need to avoid acidic food for your baby, such as berries, tomatoes, citrus fruits, and vegetables, that may cause a rash around the mouth or buttocks. The rash is the result of irritation from the acid in the food, not from an allergic reaction to the food.
- Some infants and toddlers do develop food allergies. If your infant or toddler develops signs of a food allergy (e.g., skin rashes, trouble breathing, nausea, vomiting, or loose stools in response to feeding) seek medical care and advice right away. You may also be referred to an allergist/immunologist—a doctor with experience in food allergy—for further evaluation.
- Your doctor may recommend a comprehensive evaluation and the development of a personalized plan to introduce solid food to your infant.

Note: Guidelines adapted from American Academy of Allergy, Asthma & Immunology (2015) and Australasian Society of Clinical Immunology and Allergy (2016).

About Healthy Eating Research

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