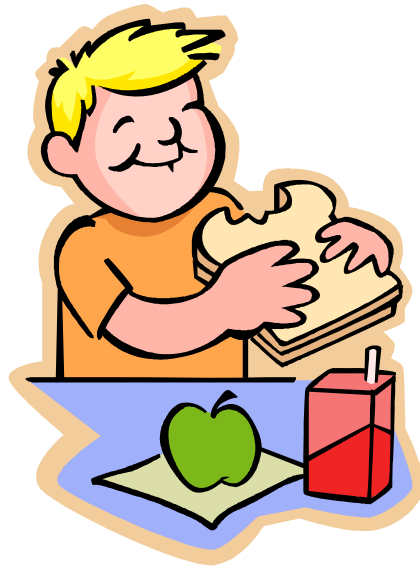


Food Service in Child Care Programs: A Guidance Document for Pima County Programs



Food Service in Child Care Task Force
2007

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This document was developed through the collaboration of individuals representing a variety of agencies, early childhood programs and children's advocates.

December 2007



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Preface

Prior to 1996, the Arizona Department of Health Services, Office of Child Care Licensure monitored compliance with some food regulation rules during inspections in child care facilities. When the revised rules and regulations (Chapter 7.1 Day Care Centers) for the Arizona Department of Health Services were passed, it was agreed between the Department of Health Services, Environmental Health and Licensing that each county would enforce the state's food code (Pima County Food Code). There would no longer be a second party enforcing portions of the food code rules (i.e. thermometers in the refrigerators, etc.).

When Pima County Health Department began food service inspections for licensed child care facilities, only centers with licensed kitchens were included in their monitoring. It was noted by Office of Child Care Licensing staff, Child Care Nurse Consultants and others who provide monitoring or technical assistance, that facilities in Pima County without licensed kitchens were performing food preparation tasks in classrooms and areas inappropriate for food preparation.

Additionally, programs with licensed kitchens were only having their kitchens inspected by the County Sanitarians. Food preparation was also taking place in other areas of the facility (for example, infant formula preparation in an infant room, snacks being made by the children in the classroom, evening snacks being prepared outside of the kitchen, etc.). In December 2006, the Food Service in Child Care Task Force came together to help to educate the agencies and child care programs on food preparation that meets the requirements of the Pima County Food Code, yet provides appetizing and nutritious food for children.

This document is the result of the Task Force's work.

Feeding Young Children



Feeding young children nutritious food is a key factor in the growth of their bodies and the development of their brains and other organs. They rely on the adults who are responsible for them to provide meals and snacks at predictable times. They expect that foods will be good for them and will be prepared in such a way that they will not become ill.

Even the youngest child understands that food serves a greater purpose than just filling a hungry tummy. The very basics of positive social-emotional development are formed as the infant is securely held by a trusted, unhurried caregiver who makes eye contact with her, smiles and makes pleasant sounds as she takes her bottle.

Development of new feeding skills such as finger feeding, eating from a spoon, and cup-drinking bring a sense of mastery of the environment and positive self esteem. Caregivers promote development by providing foods of the right texture and right size for children's abilities and are watchful for foods that can be a choking risk such as nuts, grapes, popcorn, hot dogs cut into disks, hard candy, raw chunky vegetables, and peanut butter gobs.

As they grow, children discover that eating with others, whether family or other children in the caregiving setting, is also a social time where communication skills are developed. Allowing mealtimes to be leisurely, and offering a variety of foods in a positive environment promotes social-emotional development.

Among the factors which create a child's self-identity is the inclusion of food dishes specific to the ethnic group to which he belongs. These may be specific food items which are served frequently or they may be special dishes included during times of celebration. They are a part of who he is, a part of the memories of his childhood and a part of what makes him unique.

Food service for young children is so much more than just serving food!

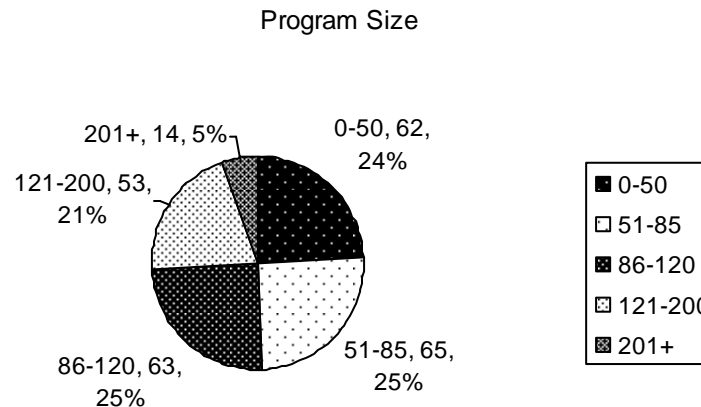
Food Service in Pima County Child Care Centers: Survey Results

Child care centers in Pima County provide food service for children in many different ways. Some facilities have licensed kitchens where all foods are prepared. In some programs, children bring snacks and/or lunch from home. Many school-age programs have meals and snacks provided from the school cafeteria. Everyone does it differently.

In order to gain a more complete understanding of food service styles in Pima County, the Food Service in Child Care Task Force mailed a survey to 379 licensed child care centers in Pima County. Centers which did not return the anonymous surveys were contacted by telephone in an attempt to gather information. Results were obtained from 258 surveys (68%).

Demographics

Program size was varied. However, when the programs serving more than 200 children (14 programs representing 5% of the respondents) were removed from consideration program size was closely distributed.



Sixty programs (23%) reported serving only school-age children and 76 programs (29%) reported serving infants. Of the programs responding 91 were nationally accredited. The survey did not gather information regarding which organization accredited the program.

Two hundred and three (203) programs provided full time care with nine of those programs offering evening and/or night time care. Fifty four programs (54) described themselves as part-day programs.

Meals and Snacks

Of the programs responding, 129 provided a morning snack, 172 provided an afternoon snack and 38 offered an evening snack. These snacks were provided by the child care program twice as often as provided by the parents (165 to 80). Fifty-three (53) programs provided snacks prepared in a central kitchen and 10 by a caterer.

Breakfast was served in 136 programs, lunch in 175 programs and dinner in 36 programs. In 96 centers, parents provided the meal, while 116 programs provided the meal. Sixty-nine programs (69) have meals provided from a central kitchen and 46 programs used a caterer.

Special Events

Some programs (195) indicated that they have special events during operating hours where parents supply food. Forty-five (45) of those programs allowed homemade food to be supplied and served. Of programs indicating the presence or absence of a licensed kitchen, programs with licensed kitchens were less likely to allow homemade foods to be served (13%) than programs without licensed kitchens (24%).

Infants

Of the 75 programs caring for infants, 34 provided formula for infants. In 31 programs bottles came from the child's home already prepared. Baby cereals were prepared in 48 programs (64%), at least seven of which do not have a licensed kitchen. Infant food is heated or mixed in 43 programs, and again, seven indicated they have no licensed kitchen. Infants received table food brought from home in 22 programs, while 36 centers provided table food to infants. Dishes and bottles were washed in 32 programs, but were only rinsed before being sent home in 38 programs.

General Food Preparation

One hundred sixty three (63%) of responding programs indicated they have a licensed food preparation area which is inspected at least annually by Pima County Health Department. The programs with licensed kitchens were more likely to be accredited than those without a licensed kitchen (41% to 23%). A dedicated food preparation area was identified by 172 programs and 157 programs indicated that all food (except that which is used as part of an activity) is prepared there. 175 programs indicated that there is a handwashing sink in the area where food is prepared, but 47 programs indicated the sink is also used for other purposes. As would be expected, this number is significantly higher in programs without a licensed kitchen.

Milk and/or juice is served in 230 programs and fresh fruits and vegetables are served in 216 programs. A commercial refrigerator is used by 122 of these programs. One hundred forty-nine programs used a residential-style refrigerator; Residential refrigerators were reported more often in programs without a licensed kitchen.

In the 216 programs which served fresh fruits and vegetables, 127 had a dedicated sink in the food preparation area set aside for washing fruits and vegetables (64% of programs with licensed kitchens and 26% of programs without licensed kitchens).

One hundred seventy-five programs claimed to wash and sanitize dishes. Multiple methods were often selected on the survey. One hundred fifteen utilized a three-compartment sink, 64 used a regular sink, 23 had a residential dishwasher and 45 had a commercial dishwasher.

Impressions

While information regarding all programs was valued, a disproportionate number of programs with licensed kitchens was represented by the returned surveys. Also, many surveys were returned with blank fields, a characteristic which was higher for those programs without a licensed kitchen.

Since programs without licensed kitchens are facing the need to bring their food service into compliance with state and local food codes, the Task Force had hoped these programs would provide a greater volume of information in order to allow more specific assessment of their technical assistance needs.

What does become clear when the data from programs without licensed kitchens is isolated is that food is often prepared in areas used for multiple purposes not compliant with the requirements of Food Code 2000. Additionally, programs are not acting to balance their menu selections with the food preparation areas they have available and the food service equipment they have on hand.

Helping programs to create a better match between their food preparation areas, their equipment, their food service style and the program's menus is the challenge of this document.

Full Survey Results

Survey Question	No Licensed Kitchen N= 82*			Licensed Kitchen N= 165*			All Programs N= 258		
	Yes	No	Blank	Yes	No	Blank	Yes	No	Blank
Is your facility nationally accredited?	19 23%	58 71%	5 6%	68 41%	91 55%	6 4%	92 36%	154 60%	12 5%
Do you have meals catered at your facility?	18 22%	62 76%	2 2%	11 7%	152 92%	2 1%	29 11%	225 67%	4 2%
Do you use food in your curriculum as part of a lesson plan?	62 76%	19 23%	1 1%	148 90%	14 8%	3 2%	218 84%	36 14%	4 2%
Do you have special events at your facility in which the parents bring in food to your facility (during your operating hours)?	52 63%	29 35%	1 1%	112 68%	52 32%	1 .6%	172 67%	84 33%	2 1%
Is this food that is brought into your facility from parents: Store bought?	62 76%	7 8%	13 16%	124 75%	19 12%	22 13%	196 76%	27 10%	35 14%
Homemade?	20 24%	33 40%	29 35%	21 13%	96 58%	48 29%	45 17%	135 52%	78 30%
Do you have a licensed food preparation area with the County Health Department (in which you receive a sanitation inspection at least once a year)?	0 0%	82 100%	0 0%	165 100%	0 0%	0 0%	165 64%	82 32%	11 4%
Do you have an area that is only used for food preparation at your facility (i.e. cutting, slicing, stirring, mixing, etc.)?	38 46%	42 51%	2 2%	132 80%	30 18%	3 2%	172 67%	74 29%	12 5%
If YES, do you use the area you have designated for food preparation for <u>all</u> food that is prepared for enrolled children (except for food related activities written on your lesson plan)?	39 48%	11 13%	32 39%	117 71%	20 12%	28 17%	157 61%	32 12%	69 27%
Do you serve milk or juice?	69 84%	12 15%	1 1%	157 95%	7 4%	1 .6%	230 89%	20 8%	8 3%
Do you serve fresh fruits and/or vegetables?	60 73%	22 27%	0 0%	151 92%	13 8%	1 .6%	216 84%	36 14%	6 2%

* Not all programs indicated the presence or absence of a licensed kitchen

Survey Question	No Licensed Kitchen N= 82*			Licensed Kitchen N= 165*			All Programs N= 258		
	Yes	No	Blank	Yes	No	Blank	Yes	No	Blank
Do you have a hand-washing sink that is part of the area that your program is using for food preparation?	45 55%	36 44%	1 1%	126 76%	37 22%	2 1%	175 68%	74 29%	9 3%
If YES, is this sink used for any other purpose than hand washing for food preparation?	23 37%	37 45%	22 27%	21 13%	126 76%	18 11%	47 18%	165 64%	46 18%
Do you have a separate sink next to the food preparation area to wash fresh fruit/vegetables?	21 26%	57 69%	4 5%	105 64%	53 32%	7 4%	127 49%	115 45%	16 6%
Do you serve canned fruits and/or vegetables?	37 45%	44 54%	1 1%	126 76%	37 22%	2 1%	166 64%	84 33%	8 3%
Do you use a residential-style refrigerator in your facility?	65 79%	16 20%	1 1%	82 50%	76 46%	7 4%	149 58%	93 36%	16 6%
Do you use a commercial refrigerator in your facility?	18 22%	62 76%	2 2%	102 62%	60 36%	3 2%	122 47%	126 49%	10 4%
Store all food items in the commercial refrigerator?	10 12%	55 67%	17 21%	82 50%	70 42%	13 8%	93 36%	127 49%	38 15%
Do you store some food items for enrolled children in a residential refrigerator?	58 71%	22 27%	2 2%	69 42%	88 53%	8 5%	130 50%	112 43%	16 6%
Do you clean and sanitize dishes?	40 49%	37 45%	5 6%	134 81%	29 18%	2 1%	175 68%	69 27%	14 5%
If YES do you use a 3-compartment sink?	10 12%	52 63%	20 24%	104 63%	44 27%	17 10%	115 45%	97 38%	46 18%
Do you use a regular sink?	31 38%	27 33%	24 29%	33 20%	110 67%	22 13%	64 25%	138 53%	56 22%
Do you use a residential-style automatic dishwasher?	16 20%	43 52%	23 28%	7 4%	138 84%	20 12%	23 9%	183 71%	52 20%
Do you use a commercial automatic dishwasher?	6 7%	54 66%	22 27%	39 24%	110 67%	16 9%	45 17%	167 65%	46 18%

* Not all programs indicated the presence or absence of a licensed kitchen

Survey Question	No Licensed Kitchen N= 12*			Licensed Kitchen N= 62*			All Programs N= 75		
	Yes	No	Blank	Yes	No	Blank	Yes	No	Blank
Infant Food Service									
Is your facility nationally accredited?	2 17%	10 83%	0 0%	21 34%	40 65%	1 2%	23 31%	51 68%	1 1%
Do you provide the infants' formula?	1 8%	7 58%	4 33%	33 53%	12 19%	17 27%	34 45%	19 25%	22 29%
Do bottles come from the child's home pre-made each day?	5 42%	3 25%	4 33%	26 42%	19 31%	17 27%	31 41%	22 29%	22 29%
Do you prepare infant cereal?	7 58%	1 8%	4 33%	41 66%	4 6%	17 27%	48 64%	5 7%	22 29%
Do you serve baby food?	7 58%	1 8%	4 33%	43 69%	2 3%	17 27%	50 67%	3 4%	22 29%
Do you mix or heat food for the infants in your program?	7 58%	1 8%	4 33%	36 58%	8 13%	18 29%	43 57%	9 12%	23 31%
Do you serve table food brought from home to the infants in your program?	4 33%	4 33%	4 33%	18 29%	27 44%	17 27%	22 29%	31 41%	22 29%
Do you provide table food to infants?	2 17%	6 50%	4 33%	34 55%	11 18%	17 27%	36 48%	17 23%	22 29%
Do you wash dishes/bottles from food served in the infant room?	2 17%	6 50%	4 33%	24 39%	21 34%	17 27%	26 35%	27 36%	22 29%
Do you <i>only rinse</i> the dishes/bottles and send them home to be cleaned?	6 50%	2 17%	4 33%	24 39%	20 32%	18 29%	30 40%	22 29%	23 31%

* Not all programs indicated the presence or absence of a licensed kitchen

Foodborne Illness



Each year in the United States, 76 million people become sick from foodborne illnesses and 5,000 of them die. Every person is at risk for a foodborne illness, but young children, pregnant women, the elderly, and those with chronic diseases or weakened immune systems are at greater risk.

Foodborne illnesses occur when a person eats or drinks food or beverages containing harmful bacteria (or their toxins), viruses, or parasites. These organisms can be found in food, water, on humans, animals and surfaces. When these organisms come into contact with our food or drink (they are “contaminated”) they can make us sick. Food can also cause illness when it is contaminated by harmful chemicals, for example mercury, arsenic, lead, or dioxin.

Food can become contaminated as it is produced, processed, stored or prepared. Bacteria may already be present when food is purchased. Good examples of high-risk foods are raw meats, poultry, eggs, and melons. Recent foodborne illness outbreaks have also included fresh vegetables including spinach, strawberries, and lettuce. Foods most often implicated in foodborne illness outbreaks include meat and poultry, eggs and egg products, milk and milk products (including pastries with cream or custard filling), and home-canned foods.

Precautions to Reduce the Risk of Foodborne Disease

A few precautions can reduce the risk of foodborne diseases:

- Anyone with an illness, particularly a diarrheal illness, or an infected cut or wound should avoid preparing food or serving meals or snacks
- Everyone must wash hands with soap and water before preparing food. Continue to keep hands clean too! Simple acts such as nose picking, rubbing an ear, scratching the scalp, touching a pimple or an open sore, or running fingers through the hair can contaminate food. Thirty to fifty percent of healthy adults carry *Staphylococcus aureus* (a toxin producing bacteria) in their noses, and about twenty to thirty-five percent carry it on their skin.

- Wear clean clothes and maintain a high standard of personal cleanliness while working with food.
- Cook meat, poultry and eggs thoroughly. Using a thermometer to measure the internal temperature of meat is a good way to be sure that it is cooked sufficiently to kill bacteria. For example, ground beef should be cooked to an internal temperature of 160° F, whole poultry to 180° F. Eggs should be cooked until the yolk is firm. Leftovers should be reheated to 165° F.
- Don't cross-contaminate one food with another. Avoid cross-contaminating foods by washing hands, utensils, and cutting boards after they have been in contact with raw meat or poultry and before they touch another food. Put cooked meat on a clean platter, rather than back on one that held the raw meat.
- Wash produce or purchase pre-washed packaged produce. Rinse fresh fruits and vegetables in running tap water to remove visible dirt and grime. Remove and discard the outermost leaves of a head of lettuce or cabbage. Because bacteria can grow well on the cut surface of fruit or vegetable, be careful not to contaminate these foods while slicing them up on the cutting board. Avoid leaving cut produce at room temperature for many hours.
- Refrigerate leftovers promptly. Bacteria can grow quickly at room temperature, so refrigerate leftover foods if they are not going to be eaten within 4 hours. Large volumes of food will cool more quickly if they are divided into several shallow containers for refrigeration.

Organisms from persons who have a foodborne illness can be passed from person-to-person through contact with their stool or vomit. In child care programs, this is particularly likely among toddlers who are not toilet trained and when there are breaks in practices related to toileting or diaper changing. Family members and playmates of these children are at high risk of becoming infected.

There is probably no more infamous case of the consequences of this secondary transmission in a child care program than during the 1993 E. coli 0157:H7 outbreak in Seattle. Three children died and more than 600 people statewide fell ill during an outbreak that was linked to improperly cooked hamburgers at a local Jack-in-the-Box. One 17 month-old did not eat a hamburger but contracted the bacteria from an infected child at his child care center. He died less than a month later.

Signs and Symptoms of a Foodborne Illness

It may take hours to days for symptoms of a foodborne illness to develop after eating contaminated food or drink. The length of this incubation period depends upon the organism involved. It also depends upon the number of the organisms that were ingested. Symptoms also vary but commonly include nausea, vomiting, diarrhea. Fever, exhaustion, and headache may also be present. These symptoms usually only last two or three days may improve without any medicine.

Typically healthy adults should ask their health care provider for advice if:

- Diarrhea lasts more than 3 days.
- Vomiting lasts more than 12 hours.
- There is blood in the stool.
- There is high fever (temperature over 101.5° (measured orally).
- Vomiting and diarrhea are causing severe abdominal cramps.
- There are signs of dehydration (dry mouth, decreased urination, dizziness when standing).

Babies and young children can become very ill quickly!

- For a baby younger than 2 months, if diarrhea is accompanied by fever call a health care provider immediately.
- For all young children, a call to a health care provider is recommended whenever diarrhea lasts more than a day, or if it is accompanied by fever, vomiting, or severe abdominal pain or if the stools contain blood or mucous.
- Call the health care provider if there are signs of dehydration. These signs include dry lips and tongue, skin that is pale and dry, sunken eyes, listlessness or decreased activity, and decreased urination such as fewer than six wet diapers a day in an infant.

There are more than 250 recognized foodborne diseases caused by a variety of bacteria (or their toxins), viruses and parasites or chemicals that have contaminated food. Determining the cause of a foodborne illness most commonly involves laboratory testing of stools and blood.

Table 2 is a review of foodborne illnesses which are identified in child care programs. When these illnesses are identified in the child care program, public health professionals also look for an increase in the same illness in the surrounding community.

Many foodborne illnesses must be reported to local health authorities. Under [Arizona Administrative Code \(AAC\) R9-6-202, 203, 204, and 205](#), a health care provider, an administrator of a health care facility or correctional facility, an administrator of a school, **child care establishment**, or shelter, or their authorized representatives must submit

communicable disease reports to the local health agency. The local health agency is usually the county health department or tribal health agency. Reports must be made immediately by telephone; others can be faxed or mailed utilizing a Communicable Disease Reporting Form (see Sample 1). A copy can be downloaded at http://www.azdhs.gov/phs/oids/downloads/cdr_form.pdf .

Table 2

Foodborne Illness-Causing Organisms						
<i>Organism</i>	Where Found	Frequently Contaminated Foods	Incubation Period/ Contagious Period	Signs and Symptoms	Exclusion from Child Care	Reports to the Health Department
<i>Campylobacter (Bacterial)</i>	Intestinal tracts of animals and birds, raw milk, untreated water, and sewage	Contaminated water, raw milk, and raw or undercooked meat, poultry, or shellfish	Symptoms appear 2 to 5 days after eating and may last 7 to 10 days. Contagious 2-7 weeks without treatment, 2-3 days after starting antibiotics.	Fever, headache and muscle pain followed by diarrhea (sometimes bloody), abdominal pain, and nausea	Exclude until NO diarrhea is present AND taking antibiotic treatment for 24 hours or negative stool specimen	Report a case or suspected case within 5 days
<i>Clostridium botulinum (Bacterial)</i>	Widely found in nature; soil, water, on plants, and intestinal tracts of animals and fish. Grows only in little or no oxygen.	Bacteria produce a toxin that causes illness. Improperly canned foods, garlic in oil, vacuum-packed and tightly wrapped food	Symptoms usually appear 18 to 36 hours, but can sometimes appear as few as 4 hours or as many as 8 days after eating. Not contagious person to person.	Double vision, droopy eyelids, trouble speaking and swallowing, and difficulty breathing. Fatal in 3 to 10 days if not treated.	Exclude and refer for medical evaluation	Health care providers must make a report
<i>Clostridium perfringens (Bacterial)</i>	Found in soil and the intestinal tract of animals and humans. Grows only in little or no oxygen.	Outbreaks related to food held too long in steam tables or at room temperature. Cooking destroys the bacteria but some toxin-producing spores may remain	Symptoms usually appear 8 to 24 hours after eating. Not contagious person to person.	Diarrhea and gas pains lasting about a day but less severe symptoms may persist for 1 to 2 weeks.	Exclude until free of diarrhea for 24 hours.	Report outbreaks

<i>Organism</i>	Where Found	Frequently Contaminated Foods	Incubation Period/ Contagious Period	Signs and Symptoms	Exclusion from Child Care	Reports to the Health Department
<i>E coli 0157:H7</i> (<i>Bacterial</i>)	Intestinal tracts of some mammals, raw milk, untreated water	Contaminated water, raw milk, raw or undercooked ground beef, unpasteurized apple juice or cider, uncooked fruits and vegetables; person-to-person	Symptoms usually appear 2 to 5 days after food is eaten or exposure occurs, lasting about 8 days. Contagious person-to-person by fecal-oral route as long as bacteria are present	Diarrhea or bloody diarrhea, abdominal cramps, nausea. Some, especially the very young, have developed hemolytic-uremic syndrome (HUS) that causes acute kidney failure.	Until diarrhea is not present; OR 2 negative stool cultures obtained at least 24 hours apart after 48 hours after completing antibiotics.	Report case or suspected case by telephone within 24 hours
<i>Listeria monocytogenes</i> (<i>Bacterial</i>)	Intestinal tracts of humans and animals, milk, soil, leaf vegetables; can grow slowly at refrigerator temperatures	Ready-to-eat foods such as hot dogs, lunch meats, cold cuts, fermented or dry sausage, and other deli-style meat and poultry, unpasteurized milk, cheeses (particularly soft-ripened cheeses like feta, Brie, Camembert, blue-veined, or Mexican-style queso blanco, queso fresco or Panela made from unpasteurized milk).	May take up to 3-70 days for symptoms to appear. May later develop more serious illness in at-risk patients (pregnant women and newborns, older adults, and people with weakened immune systems). Not contagious person to person.	Fever, chills, headache, backache, sometimes upset stomach, abdominal pain and diarrhea.	No exclusion	Report case or suspected case by telephone within 24 hours

<i>Organism</i>	Where Found	Frequently Contaminated Foods	Incubation Period/ Contagious period	Signs and Symptoms	Exclusion from Child Care	Reports to the Health Department
<i>Salmonella</i> (over 2300 types) (Bacterial)	Intestinal tracts and feces of animals	Raw or undercooked eggs, poultry, and meat; raw milk and dairy products; seafood	Symptoms usually appear 8 to 72 hours after eating; may last 1 to 2 days. Contagious person-to-person by fecal-oral route as long as bacteria are present	Stomach pain, diarrhea, nausea, chills, fever, and headache.	Until diarrhea is not present or 2 negative stool cultures obtained at least 24 hours apart	Report case or suspected case by telephone within 24 hours
<i>Shigella</i> (Bacterial)	Human intestinal tract; rarely found in other animals	Most outbreaks result from food, especially salads, prepared and handled by workers using poor personal hygiene	Symptoms usually appear 12 to 50 hours after food is eaten or exposure occurs. Can last a few days to 2 weeks. Contagious person-to-person by fecal-oral route as bacteria are present.	Diarrhea containing blood and mucus, fever, abdominal cramps, chills, and vomiting	Treatment with antibiotics is maintained for 24 hours and diarrhea is not present or 2 successive negative stool cultures are obtained from specimens collected at least 24 hours apart and at least 48 hours after discontinuing antibiotics	Report case or suspected case by telephone within 24 hours
<i>Staphylococcus Aureus</i> (Bacterial)	On humans (skin, infected cuts, pimples, noses, and throats)	In any food contaminated with the Staphylococcal bacteria. Staphylococcal bacteria multiply rapidly at room temperature and produce a toxin that causes illness.	Symptoms usually appear 1 to 6 hours after food is eaten. Foodborne staphylococcal bacteria is not contagious person-to-person.	Severe nausea, abdominal cramps, vomiting, and diarrhea. Recovery within 2 to 3 days - - longer if severe dehydration occurs.	Exclude individuals with vomiting and diarrhea until symptom free for 24 hours ²	Report outbreaks of vomiting and diarrhea to the local health department.

<i>Organism</i>	Where Found	Frequently Contaminated Foods	Incubation Period/ Contagious Period	Signs and Symptoms	Exclusion from Child Care	Reports to the Health Department
<i>Hepatitis A (Viral)</i>	Human intestinal tract	Any food contaminated with the virus often by unwashed hands	Symptoms usually appear 2-6 weeks after exposure. Contagious person-to-person by fecal to oral route two weeks before illness to 1 week after yellow skin/eyes (jaundice) develops	Nausea, vomiting, fever, abdominal pain. Dark colored urine, yellow skin/eyes. Young children often have few or no symptoms.	Exclude until symptom free or until 14 days from the onset of illness	Report case or suspected case by telephone within 24 hours
<i>Norovirus (Viral)</i>	Human intestinal tract	Any food contaminated with the virus often by unwashed hands. Outbreaks have sometimes been associated with cold foods like salads and sandwiches.	Symptoms usually appear 12 to 48 hours after exposure. Lasts for 1-2 days. Contagious person-to-person by the fecal oral route from the onset of symptoms to 3 days or more after recovery	Nausea, vomiting, diarrhea and sometimes low-grade fever	Exclude individuals with vomiting and diarrhea until symptom free for 24 hours	Report outbreaks of vomiting and diarrhea to the local health department.

Information in the chart above was compiled from many sources including the FDA Center for Food Safety and Applied Nutrition <http://www.foodsafety.gov/~dms/fsefborn.html> and the Bad Bug Book, <http://www.cfsan.fda.gov/~mow/intro.html>

¹ Reporting and case control measures are specified in Title 9, Chapter 6 of the Arizona Administrative Code. The local health department can provide additional helpful information if programs have concerns.

² Not restricted by Arizona Administrative Codes.

Communicable Disease Report Important instructions on reverse side - Please print or type Send completed forms to your county or tribal health agency				County/IHS ID number: Date Received by County:		State ID Number	
Patient's name (Last) (First) (Middle Initial)		Sex <input type="checkbox"/> Male <input type="checkbox"/> Female		Date of birth		Race <input type="checkbox"/> (1) White <input type="checkbox"/> (3) Black <input type="checkbox"/> (4) Asian/Pac. Isl <input type="checkbox"/> (5) Nat. American <input type="checkbox"/> (8) Other <input type="checkbox"/> (9) Unknown	
Street address		Telephone no:		County or Tribal Residence		Ethnicity <input type="checkbox"/> Hispanic <input type="checkbox"/> Non-Hispanic <input type="checkbox"/> Unknown	
Mailing address (if different than above)		City or Town		State		Zip code	
Diagnosis or suspect reportable condition		Date of onset		Date of diagnosis		Laboratory test	
Patient's occupation or school		Physician or other reporting source		Telephone no:		Facility	
Street address		City		State		Zip code	
Laboratory results		Specimen Type:		Date Collected:		Date Finalized:	
Local Health Agency use only <input type="checkbox"/> Confirmed case <input type="checkbox"/> Probable case <input type="checkbox"/> Outbreak, Associated <input type="checkbox"/> Ruled out/Non case		Outcome <input type="checkbox"/> Died <input type="checkbox"/> Survived		Census tract		Payment <input type="checkbox"/> Yes <input type="checkbox"/> No	

Original and 1st copy to County/Tribal Health Department Check if additional forms are needed (Quantity) _____ ADHS/IDES-1 (Rev. 9-04)

REPORTABLE DISEASES

Arizona Revised Statutes and Arizona Administrative Code require the following infectious diseases to be reported to the local health agency (County/IHS or Tribe). For additional information, please visit the Arizona Department of Health Services' website at <http://www.azdhs.gov>.

Table 1. Reporting Requirements for a Health Care Provider or an Administrator of a Health Care Institution or Correctional Facility

<input type="checkbox"/> (SPO) Anthrax	<input type="checkbox"/> (S) Hepatitis infection	<input type="checkbox"/> (SPO) Salmonellosis
<input type="checkbox"/> (S) Arthritis	<input type="checkbox"/> (S) Hemolytic uremic syndrome	<input type="checkbox"/> (S) Scabies
<input type="checkbox"/> (S) Asplenic meningitis, viral	<input type="checkbox"/> (SPO) Hepatitis A	<input type="checkbox"/> (S) Severe acute respiratory syndrome
<input type="checkbox"/> (S) Bacteroidemiasis	<input type="checkbox"/> (S) Hepatitis B and D	<input type="checkbox"/> (SPO) Shigellosis
<input type="checkbox"/> (S) Botulism	<input type="checkbox"/> (S) Hepatitis C	<input type="checkbox"/> (S) Smallpox
<input type="checkbox"/> (S) Brucellosis	<input type="checkbox"/> (SPO) Hepatitis E	<input type="checkbox"/> (S) Streptococcal Group A, invasive disease
<input type="checkbox"/> (SPO) Campylobacteriosis	<input type="checkbox"/> (S) Hantaan gastroitis	<input type="checkbox"/> (S) Streptococcal Group B, invasive disease in infants younger than 90 days of age
<input type="checkbox"/> (S) Chancroid	<input type="checkbox"/> (S) HIV infection and related disease	<input type="checkbox"/> (S) Syphilis
<input type="checkbox"/> (S) Chlamydia infection, genital	<input type="checkbox"/> (S) Kawasaki syndrome	<input type="checkbox"/> (SPO) Tetanus
<input type="checkbox"/> (S) Chlamy	<input type="checkbox"/> (S) Legionnaires' (Legionnaires' disease)	<input type="checkbox"/> (S) Toxic shock syndrome
<input type="checkbox"/> (S) Coccioidiomycosis (valley fever)	<input type="checkbox"/> (S) Leptospirosis	<input type="checkbox"/> (S) Trichinosis
<input type="checkbox"/> (S) Colorado tick fever	<input type="checkbox"/> (S) Listeriosis	<input type="checkbox"/> (S) Tuberculosis
<input type="checkbox"/> (S) Cryptosporidiosis	<input type="checkbox"/> (S) Lyme disease	<input type="checkbox"/> (S) Tuberculosis infection in a child younger than 6 (positive test result)
<input type="checkbox"/> (S) Cyclospora infection	<input type="checkbox"/> (S) Lymphocytic choriomeningitis	<input type="checkbox"/> (S) Typhoid fever
<input type="checkbox"/> (S) Cytomegalovirus	<input type="checkbox"/> (S) Malaria (malaria)	<input type="checkbox"/> (S) Typhus fever
<input type="checkbox"/> (S) Dengue	<input type="checkbox"/> (S) Meningococcal invasive disease	<input type="checkbox"/> (S) Unexplained death with a history of fever
<input type="checkbox"/> (S) Diphtheria	<input type="checkbox"/> (S) Measles (chickenpox)	<input type="checkbox"/> (S) Vaccination-related adverse event
<input type="checkbox"/> (S) Echinococcosis	<input type="checkbox"/> (S) Meningitis	<input type="checkbox"/> (S) Vaccines/injectables or Vaccines/injectables immediately susceptible
<input type="checkbox"/> (S) Erysipelas	<input type="checkbox"/> (S) Pertussis (whooping cough)	<input type="checkbox"/> (S) Vaccines/injectables or Vaccines/injectables immediately susceptible
<input type="checkbox"/> (S) Erythema multiforme	<input type="checkbox"/> (S) Pharyngitis	<input type="checkbox"/> (S) Varicella infection
<input type="checkbox"/> (S) Erythema nodosum	<input type="checkbox"/> (S) Poliovirus (polio)	<input type="checkbox"/> (S) Varicella infection, Shigella infection
<input type="checkbox"/> (S) Erythema migrans	<input type="checkbox"/> (S) Q fever	<input type="checkbox"/> (S) Varicella (chickenpox)
<input type="checkbox"/> (S) Erythema infectiosum (parvovirus B19)	<input type="checkbox"/> (S) Rabies in a human	<input type="checkbox"/> (SPO) Viral infection
<input type="checkbox"/> (S) Erythema infectiosum (parvovirus B19)	<input type="checkbox"/> (S) Relapsing fever (borreliosis)	<input type="checkbox"/> (S) Viral hemorrhagic fever
<input type="checkbox"/> (S) Erythema infectiosum (parvovirus B19)	<input type="checkbox"/> (S) Roseola infantum	<input type="checkbox"/> (S) West Nile virus infection
<input type="checkbox"/> (S) Erythema infectiosum (parvovirus B19)	<input type="checkbox"/> (S) Rocky Mountain spotted fever	<input type="checkbox"/> (S) Yellow fever
<input type="checkbox"/> (S) Erythema infectiosum (parvovirus B19)	<input type="checkbox"/> (S) Rubella (German measles)	<input type="checkbox"/> (SPO) Yersinia
<input type="checkbox"/> (S) Erythema infectiosum (parvovirus B19)	<input type="checkbox"/> (S) Rubella syndrome, congenital	

Key:

- (S) Submit a report by telephone or through an electronic reporting system authorized by the Department within 24 hours after a case or suspect case is diagnosed, treated, or detected or an occurrence is detected.
- (S) If a case or suspect case is in a food handler or works in a child care establishment or a health care institution, instead of reporting within the general reporting deadline, submit a report within 24 hours after the case or suspect case is diagnosed, treated, or detected.
- (S) Submit a report within one working day after a case or suspect case is diagnosed, treated, or detected.
- (S) Submit a report within five working days after a case or suspect case is diagnosed, treated, or detected.
- (S) Submit a report within 24 hours after detecting an outbreak.

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Food Shopping and Storage Basics



Food which is not handled carefully during shopping and storage can become contaminated with germs and may cause illness. Here are some quick tips to keep food healthy and safe:

When Shopping

- Buy food with packaging in good condition—no dented or bulging cans, torn wrappers. Avoid cracked eggs.
- Check “use by” or “sell by” dates on packaging—avoid short-dated items.
- Make sure to buy meats and poultry which have been inspected by federal or state agencies.
- Purchase only pasteurized milk and fruit juices.
- Buy fresh fruits and vegetables that are clean, without blemishes, breaks in the skin, or soft-spots.
- Make cold and frozen foods the last items in your shopping basket.
- Choose frozen foods that feel rock-solid. Select frozen foods from below the "frost" or "load" line seen on horizontal commercial display cases.
- Put meats in a plastic bag. Separate them in the basket and shopping bags from foods that will be eaten fresh.
- Return directly to the child care facility and place cold foods in the refrigerator or freezer. Never leave food in a hot car.

When Storing

- Monitor refrigerator and freezer temperatures with a thermometer. Keep refrigerators at 40°F or colder and freezers at 0°F or colder.
- Place prepared (already cooked) foods above raw items so spills do not contaminate ready-to-eat foods.
- Store unrefrigerated items in clean, rodent and insect-proof containers.
- Store food items separately from non-food items.
- Store food containers at least 6” off the ground.
- Monitor “use by dates” for all food items. Usually a “first purchased, first used” rule will apply.
- Keep storage rooms cool, dry and free of insect or rodent infestation.

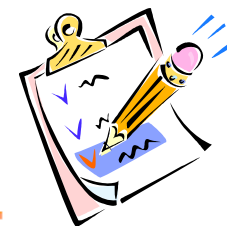
Control Temperatures

- Thaw frozen meat or poultry in the refrigerator quickly or put quick-thaw foods in plastic bags under cold running water for immediate preparation.
- Do not thaw frozen foods by allowing them to stand at room temperature.
- Prepare these foods as quickly as possible once removed from a refrigerator, serve them immediately, and refrigerate leftovers immediately: .Meat salads, poultry salads, egg salads, seafood salads and potato salads, cream-filled desserts or puddings, other prepared foods containing milk, meat, poultry, fish and/ or eggs.
- *Cook thoroughly!* Use a meat thermometer to check internal temperatures to be sure food has been cooked evenly. Cook poultry, stuffing (cook in separate pan from poultry or meat) and pork/ pork products (minimum of 165° F).
- Heat foods to 140° F.
- Maintain foods at 140° F or warmer or 40° F or colder.
- Refrigerate leftovers immediately or discard.
- Refrigerate leftovers in shallow pans (no more than 2” deep) or freeze immediately to bring rapidly bring temperatures to 40° F or lower.

Keep It Clean

- Wash hands before working with food or before eating.
- Keep hair pulled back, and keep hands away from hair while cooking.
- Avoid touching your face while cooking—keep hands away from the nose and mouth. Wash hands after coughing or sneezing into them or after blowing your nose.
- Immediately clean and sanitize surfaces where meat juices have spilled.
- Don't reuse a spoon which was used for tasting even once.
- Do not reuse disposable articles. They cannot be adequately cleaned and sanitized.

Establishing a Food Code Compliant Food Service Program



Step 1: Matching Your Menu to Your Food Preparation Area

Establishing a Pima County Food Code compliant program when you do not have a licensed kitchen involves balancing your menu selections with the designated food preparation area you have created and the required equipment needed to safely prepare and serve those selections.

Begin by taking an inventory of your designated food preparation area. Is your food preparation area counter (for example the counter where you prepare food) smooth, and free of broken places such as chips, pits, cracks, open seams, or crevices? Is it easily cleaned? Do you have a handwashing sink designated solely for food preparation activities? How do you clean and sanitize dishes? Do you have a residential or commercial refrigerator?

Create a 30 day menu cycle of meals and snacks that fits your program's needs and is consistent with children's nutritional needs. Using the Meal Pattern Guidelines developed by the Child and Adult Care Food Program of the United States Department of Agriculture (CACFP) will help assure that children's nutritional needs are met. See http://www.fns.usda.gov/cnd/Care/ProgramBasics/Meals/Meal_Patterns.htm for more information on CACFP meal patterns. Consider how food must be stored, and the pans, dishes and utensils which will be required to prepare and serve the items.

The options continuum below may help you to explore food service styles for your program.

Level 1: I have an area set aside for assembling meals and snacks, and an appropriate sink for handwashing.

A designated food preparation area for simple food service may be as basic as a cart or tray which is used solely for food service. An appropriate handwashing sink must be close to the food preparation area and may not be in a bathroom, used for handwashing after bathroom activities or used for diapering tasks. The sink must be supplied with warm water, a mounted and filled soap dispenser and paper towels.

- All food preparation must take place in a designated food preparation area.
- Parents may provide all meals and snacks for their own child. Cold gel ice packs and insulated bags should be utilized by parents to keep food items fresh. No warming, cutting or stirring of items, including parent-provided items is allowed. Parents provide needed utensils which are sent home to be washed or disposable utensils are used.
- A licensed caterer may provide meals and snacks.
- Cans must have pull-tops (cannot use can openers).
- No food requiring refrigeration to stay fresh may be served by the program.
- Styrofoam should be avoided as pieces can break off and be a choking hazard for children.
- A disposable spoon can be used to place a small amount of food from an original container onto a child's disposable plate. *Once opened, if the food in the original container is perishable, it must be discarded or placed in a commercial refrigerator.*

The program can provide:

- Food which is pre-packaged, or canned (with a pull-top) and does not require refrigeration or additional preparation. Examples: small bags of pretzels, crackers, whole wheat goldfish, trail mix, low-fat granola bars.
- Dried fruit, shelf-stable unsweetened applesauce cups, dry low-sugar cereals, shelf-stable individual fruit and pudding cups, shelf-stable individual pasta meals.
- Canned meats or beans with pull-tops or in foil pouches like tuna and chicken.
- Bread, bagels, rice cakes, mini whole-wheat muffins and crackers removed from the wrapper and placed on the child's plate. Non-latex gloves should be worn for this task.
- Bananas served in the skin whole or cut (right before serving) with a disposable knife. Non-latex gloves should be worn for this task.
- Beverages such as prepackaged or bottled beverages not requiring refrigeration. Examples include bottled water, boxed juice, and shelf-stable (UHT) milk. *Note that shelf-stable beverages can be placed in a residential-style refrigerator for chilling to improve flavor. However, once opened these items are perishable and must be discarded or placed in a commercial refrigerator.*
- Spreads like peanut butter and jelly, which are placed from the original container onto a child's disposable plate which the child then applies to a cracker or bagel. (Caution: peanut butter swallowed in a lump can be a choking

hazard! Assure spreading of peanut butter in a thin layer on a cracker or slice of bread.) Cream cheese in shelf-stable individual packages.

Level 2: I have a food preparation area and hand washing sink which I use for food preparation and I have a 3-compartment sink

- All food preparation takes place in the designated food preparation area.
- Reusable dishes, utensils, and serving items may be used.
- Can openers may be used.
- Food items can be cut and stirred.
- No food requiring refrigeration to stay fresh is served by the program. Cold gel ice packs and insulated bags should be utilized by parents to keep food items sent from home fresh. Reusable utensils may be provided by the program.
- No food that requires washing (like fresh fruit or fresh vegetables) can be prepared. *

**A request (exemption) to use the sanitizing section of a 3-compartment sink for washing fruits and vegetables may be submitted to the Pima County Health Department. This may be granted if no raw animal foods are prepared in the facility and if other selected criteria are met.*

The program can provide foods and beverages listed in Level 1 and:

- Items from cans with or without pull tops such as canned fruits and vegetables, meat spreads, beans, etc.
- Beverages include bottled water, bottled/boxed juice, and shelf-stable (UHT) milk which may be served from reusable cups and glasses. Pitchers for serving water or juice may be used.

Level 3: I have a food preparation area and hand washing sink which I use for food preparation, and I have a commercial refrigerator. I do not have a 3-compartment sink or commercial dishwasher.

- All food preparation takes place in the designated food preparation area.
- Only disposable utensils and serving items may be used.

- Perishable foods can be stored in the commercial refrigerator (fresh dairy products, juices from opened bottles, commercially prepackaged fresh fruit slices, commercially packaged cheese sticks).
- Parent-provided snacks and meals can be stored in the commercial refrigerator below other foods, but above raw meats.
- No warming, cutting or mixing/stirring of items, including parent-provided items is allowed. Parents provide needed utensils which are sent home to be washed or disposable utensils are used.
- No food that requires washing (like fresh fruit or fresh vegetables) can be prepared.

The program can provide foods listed in Level 1 and:

- Foods commercially prepackaged such as pre-washed fruits and vegetables (usually marked “ready to eat”), hard-boiled eggs, cheese sticks, yogurt, hummus, etc.
- Cheese cut from blocks with a disposable knife.
- Luncheon meats, cheese spreads.
- Yogurt or low-fat ranch dressing placed from the original large container onto a child’s disposable plate.
- Fresh milk, fruit and vegetable juices and water. Once opened, unused portions which have remained in the original container and have not been used for family-style food service may be stored in the commercial refrigerator.

Level 4: I have a food preparation area, a handwashing sink, a commercial refrigerator, and a 3-compartment sink or commercial dishwasher, but my food preparation area is not licensed.

- The program can provide foods and beverages listed in all previous levels.
- Your food preparation area may meet the requirements for a licensed kitchen.

Step 2: Getting Your Plan Approved

In Pima County, every child care program which provides food or beverages, including water or ice, for children is regulated by state and local food codes unless the Pima County Health Department has granted a variance to the individual program. Now that you have surveyed your food preparation area and developed a menu to match, you are ready for the next step in establishing a Food Code Compliant food service program. If you are not satisfied with your food preparation area and have decided to remodel or upgrade the area, submit your proposed plan and menu before any demolition or building takes place. This will save you time, frustration and perhaps extra costs.

Complete a Plan Review Application

The plan review process assures that all food establishments, including child care centers serving food, are constructed or remodeled in compliance with the Food Code. Plan review can minimize potential health hazards through assuring your food preparation area is designed appropriately and that your menu and food preparation are indeed a good match.

Request a plan review packet from Pima County Health Department, Consumer Health and Food Safety. Their phone number is (520) 243-7908. They are located next to Kino Hospital in the Dr. Herbert K. Abrams Public Health Center at 3950 S. Country Club Road, Tucson, AZ, 85714, on the first floor. The fee for initial plan review is \$382. The plan review fee includes a review of your written plans, and a preliminary and a final onsite inspection of the center. If more inspections are required, the Health Department may recover the costs of these inspections by charging additional inspection fees. The plan review process will take 30 to 90 days to complete.

Plan review requires a drawing of the layout of the center. The items which must be included on the drawing are very specific and make it difficult for the average person to capture all elements which need to be included. A professional such as a licensed architect, engineer or a food service consultant may need to provide you with assistance. A copy of the *Minimum Requirements for Plan Submittal* is available from the Pima County Health Department Consumer Health and Food Safety website at <http://www.pimahealth.org/healthfood/index.html> .

Adjustments to your food preparation area or to your menu may be required to create the perfect match.

A complete copy of the Food Code can be found at <http://www.azdhs.gov/phs/oeh/rs/pdf/fc2000.pdf> .

Providing Fresh Drinking Water



Water needs to be available to children at all times. Some programs have water fountains, both indoors and outdoors, and others provide water in a variety of ways. Keep the following in mind:

- Water must come from an approved source, such as a public water system or non-public system which is sampled and tested at least annually.
- Water used to prepare formula or infant foods must meet the same standards as drinking water.
- Water for drinking or preparing formula or infant foods cannot be drawn from the diaper changing sink.
- Water can be served from pitchers if the program has a three-compartment sink for washing, rinsing and sanitizing the pitchers.
- If reusable cups or glasses are used, including sippy cups, a 3-compartment sink to allow washing, rinsing and sanitizing is required. Sippy cups which belong to the child can be sent home for washing.
- Drinking water can be provided from commercially-prepared bottled water in a variety of forms including individual bottles, gallon jugs, and 5 gallon jugs in dispensing units. These bottles cannot be refilled by the program for reuse, but should be returned to the water provider for processing.
- If a cooler (such as an Igloo®-type water cooler) is used to provide water outdoors, each day all inside surfaces must:
 - be cleaned with hot, soapy water. The bathroom, diapering sink or outdoor hose cannot be used for this process.
 - be rinsed and sanitized with a solution such as 1 tablespoon of bleach to 1 gallon of cool water which is allowed to stand in the cooler at least 2 minutes.
 - be air dried.
 - Do not overlook washing and sanitizing the inside of the lid and the threads which secure the lid to the base of the cooler.
 - Remove and thoroughly clean and sanitize both the drain plug and spigot.
- Children may bring water bottles from home.
- Outdoor water fountains which are at risk of being contaminated by bird droppings should be shut off and water should be provided to children by a different method when they are outdoors.

Infant Care



Every child care program serving infants must make decisions about the way infant foods will be provided. In some programs parents provide all foods for their infants. In others all foods are provided by the program. Some infants with specific feeding needs may need specialized foods or feeding equipment which families will need to provide. Some parents may choose to provide breast milk or mothers may return to the center to breastfeed their infant in a quiet corner made available by the program.

Dated, written instructions from the infant's parent or health care provider form the basis for a Feeding Plan for the individual child. The plan should include the kind of formula used, and cereals, juices and pureed or finger foods as they are added. A copy of the most current Feeding Plan for each infant should be posted in the food preparation area and in the room where the infant is cared for.

Mixing formulas or cereals, heating formula or food or thawing frozen breast milk must take place in a designated food preparation area included in the Plan Review for your Food Code-compliant food service program and be approved by the Pima County Health Department.

An infant food preparation area in the infant room would include a non-porous, easily cleaned and sanitized counter or other approved surface to be used solely for food preparation. A sink with warm water for handwashing supplied with soap and paper towels must be available. Fresh drinking water for food preparation must be available.

Diapering and food preparation areas cannot share a counter, even if separated by a physical barrier. Contamination of the food preparation area can easily occur if splashing from the sink used for diapering activities reaches the food preparation area or if a caregiver reaches into the food preparation area with contaminated hands.

Infant Bottles

Bottles which are already prepared (by the parent or the program) and open cans of formula concentrate must be stored in a commercial refrigerator or parents may send them in an insulated bag with cold gel packs. Residential refrigerators, whether dormitory-size or larger, are not adequate for storing infant bottles. Each bottle must be labeled with the child's first and last name and the date it was prepared or the date the breast milk was expressed.

Preparing Infant Formula

If infant formula bottles are not provided already prepared, be sure to follow the instructions provided by the formula manufacturer. Unless provided with a health care provider's written, signed instructions, dilute formula with only the amount of water specified on the label and use the measuring device (spoon or scoop) provided by the manufacturer. Do NOT interchange formulas. Use only the formula(s) listed on the infant's feeding plan. Always check for "use by" dates. Do not use expired formula.

Before preparing bottles, staff must wash their hands in a hand washing sink which is not used as the diapering sink. Preparation surfaces need to be cleaned and sanitized before preparing formula or food. Formula can only be placed in bottles which were washed, rinsed and sanitized in a 3-compartment sink, the commercial dishwasher or were washed and provided from the child's home. Examine the screw threads, rings, and interior of the nipple of each bottle (including those which are meant to be used with plastic liners) for debris or soil which was missed in the cleaning and sanitizing process. Do not use items which do not appear to be clean.

Refrigerate open cans of liquid formula concentrate and discard open cans within 24 hours. Powdered dry formula should be mixed with water just before feeding. Recap the remaining formula immediately and store in a cool, dry place up to one month.

Warm bottles by placing them in a pan or bowl of warm water. Never warm infant bottles in a microwave. Undetected hot spots in the bottle may result in serious burns to the infant.

Discard unused prepared bottles which have been refrigerated after 24 hours. Discard unused prepared formula that has been at room temperature for 2 or more hours. *Always discard a partially-used bottle within one hour from the time the infant began feeding from it whether or not it was placed back into a refrigerator.*

Some centers with limited food preparation areas and no commercial refrigerator ask parents to provide several clean, labeled bottles with the appropriate amount of powdered formula loaded into the bottle. As the infant shows signs of hunger, caregivers can add the appropriate amount of fresh drinking water to the bottle and shake it up for feeding.

Breast Milk

Recent information in the press has indicated that breast milk may be stored at room temperature for up to 10 hours (<http://www.webmd.com/baby/features/breast-pumps-working-moms-friend>). However, in the child care setting breast milk must be stored in a commercial refrigerator or commercial freezer, or parents may send it in insulated bags with cold gel cold packs. To decrease the need to handle breast milk, ask parents to provide breast milk in labeled, prepared bottles. Frozen breast milk may be defrosted in the refrigerator and the bottle warmed in a cup of warm water just before feeding.

Always check twice to be sure the bottle of breast milk is given only to the baby it was meant for. If an infant receives breast milk not intended for him, the parent of the infant who received the wrong breast milk must be notified and a recommendation to contact the infant’s health care provider made.

While breast milk is considered a potentially infectious body fluid, it is not necessary to wear gloves while feeding breast milk to a baby. However, gloves should be worn to clean up a large spill of breast milk.

Breast Milk Storage Guidelines			
	Room Temperature	Refrigerator	Freezer
Freshly-expressed breast milk	1 hour	48 hours	3-6 months
Thawed breast milk	Do NOT store	24 hours	Never refreeze thawed breast milk

Infants must be held with the head slightly elevated or seated in a high chair or at a table when feeding from a bottle or eating. Bottles must never be propped. As babies get older, bottles and sippy cups are used as part of the meal or snack. They are removed at the end of the meal or snack before the child is returned to his crib or play area. Juices should never be placed in bottles but are often used in introducing the sippy cup.

Infant Foods

Prepare infant cereals in a designated, approved food preparation area only. These cereals are usually mixed with formula or breast milk from an unused bottle. If there is not an approved food preparation area, only ready-to-eat infant cereals should be provided and disposable utensils or utensils provided by the parent and sent home for cleaning should be used.

Commercial baby food in jars should have a clean label, and the "Circle of Safety" button in the center of the cap should be down. Always check the expiration date on the cap. Before serving, wipe cap with a clean cloth. Spoon out the desired amount of food into a separate feeding dish. Do not feed the baby straight from a jar of baby food. Saliva on the spoon may contain bacteria which will contaminate the rest of the food in the jar. Re-cap the jar. Leftover infant food fed from the original container cannot be put back in any refrigerator for later use. If infant food is placed in a bowl for serving, unused portions of infant food which have remained in the container may be stored in a commercial refrigerator for use within two to three days.

High chairs and tabletops must be cleaned with soap and water and sanitized with a bleach and water solution or other approved sanitizer after use or between use by different children. Don't forget to include all areas including chair sides and under high chair trays which can be reached by the child while he is seated.

Feeding Infants

Comprehensive information about infant feeding can be found in the document *Feeding Infants: A Guide for Use in the Child Nutrition Programs* http://www.fns.usda.gov/tn/Resources/feeding_infants.pdf . Zero to Three's website www.zerotothree.org has resources on feeding and nutrition issues for young children. See *The Feeding Relationship* written by Ellyn Satter, M.S., R.D., A.C.S.W., and *Healthy From the Start: How Feeding Nurtures Your Young Child's Body, Heart, and Mind*.



Managing Food Allergies

About Food Allergies

A food allergy is an unfavorable reaction by the body's immune system to a food that it mistakenly believes is harmful. It is not the same as a food intolerance (such as lactose intolerance) which is another kind of unfavorable reaction to food, but it does not involve the body's immune system.

Scientists believe that approximately 12 million people in the United States have food allergies. Severe allergic reactions (anaphylaxis) cause an estimated 150 deaths each year. Although only 8% of children under 6 have adverse reactions to food, only 2-5% have confirmed food allergies. Some children grow out of their food allergies.

Heredity is the primary cause of food allergies. Although any child can develop a food allergy, children from families with a history of food allergies are more likely to become allergic.

These eight foods account for 90% of food allergies in the United States: milk (dairy products), eggs, peanuts, tree nuts (like walnut or almonds), fish (like cod or flounder), shellfish (like crab, lobster, shrimp), soy and wheat.

What is an Allergic Reaction?

Once the body decides that a food is harmful, it creates specific antibodies to it. The next time the person eats that food, the body releases chemicals, including histamine, to try to protect the body. These chemicals can affect the lungs, stomach, skin or heart. The symptoms that result are called an allergic reaction. Reactions can range from very mild (sneezing) to severe (anaphylaxis). While most people must actually take in (eat) the food, some are so sensitive that small traces or even just contact with the food can cause a reaction. Anaphylaxis is a life threatening medical emergency. Peanuts and shellfish cause most of the food anaphylaxis reactions. See the table at the end of this chapter for more information about common food allergens.

Avoiding Allergic Reactions

The only way to prevent an allergic reaction is strict avoidance of the food since there is no cure for food allergies. This requires the center and parent to communicate about any known food allergies and to make sure the child has no contact with the known food allergen and to carefully read food labels. Children with an allergy should not eat any food that does not have a label (which includes any homemade food brought from another child's home.) The Food Allergy and Anaphylaxis Network (<http://www.foodallergy.org/>) provides these suggestions in planning avoidance measures for children with allergies:

- Assure there is an allergy care plan in place for the child. See <http://www.foodallergy.org/actionplan.pdf>
- Ask the child's parents to provide you with a complete list of foods and ingredients to avoid.
- Prepare food for the child with an allergy first, cover it and remove it from the cooking area until ready to serve.
- Designate one person to be responsible for food given to the child with an allergy. (Be sure you also have a designated backup person.)
- Designate a special shelf in the pantry for storing allergy-free foods and clearly label them for each child. Do the same for the refrigerator.
- Write the child's name on bottles/cups so that bottles are not mistakenly given to the wrong child. This is particularly important if some children are allergic to milk and others drink milk-based formula.
- Write the child's name on all baby food jars and jar tops.
- Post the information about the child's bottle color, special shelf, etc. on the staff bulletin board or in the kitchen so everyone will see it.
- Ask parents to put their child's name on all foods before sending them in to your facility.
- Feed allergic toddlers in high chairs to keep the children separated during mealtime.
- Feed the children in shifts; feed the children with allergies first if the facility is large.
- Assign cups to each child and be sure the allergic child's cup cannot be confused with that of another child. Another option is to use disposable cups for the allergic child.
- Keep a box of safe snacks so there is always something the child can choose from during unplanned special events.
- Store a nonperishable safe lunch in case the child forgets to bring lunch one day.
- Ask parents for guidance as you plan activities. Encourage them to work with you in organizing class parties and special events.

- Inform parent volunteers for class celebrations and field trips about the food allergy management policy and identify the children at risk for an allergic reaction.
- Have a staff member sit next to the allergic child so that an adult can monitor what that child eats and drinks.

How Will We Know If A Child Is Having An Allergic Reaction?*

An allergic reaction can occur within minutes to two hours after the child has eaten the food. Common symptoms are:

- a tingling sensation in the mouth
- swelling of the tongue and throat
- rash
- eczema
- hives and swelling
- itchiness and redness on the skin, lips, eyelids or other parts of the body
- nausea, vomiting, stomach cramping, or diarrhea
- wheezing or difficulty breathing
- drop in blood pressure
- loss of consciousness
- and (rarely) death

Children might describe an allergic reaction as:

- This food's too spicy!
- My tongue is hot (or burning).
- It feels like something's poking my tongue
- My tongue (or mouth) is tingling (or burning).
- My tongue (or mouth) itches.
- It (my tongue) feels like there is hair on it.
- My mouth feels funny.
- There's a frog in my throat.
- There's something stuck in my throat.

* Used with permission from the Food Allergy and Anaphylaxis Network, 11781 Lee Jackson Hwy., Suite 160, Fairfax, VA 22033-3309

- My tongue feels full (or heavy).
- My lips feel tight.
- It feels like there are bugs in there (to describe itchy ears).
- It (my throat) feels thick.
- It feels like a bump is on the back of my tongue (throat).

What Can Be Done If A Child Has An Allergic Reaction?

Follow the instruction in the child's care plan. Details about when the medicine should be given must be recorded in the child's individualized care plan. A care plan for children with allergies can be found at <http://www.foodallergy.org/actionplan.pdf> . Sometimes, oral antihistamines (like Benadryl) can be used to treat early or mild allergic symptoms. For symptoms of anaphylaxis, the medicine Epinephrine (also called adrenaline) is used and is given by a pre-filled, injectable device (EpiPen and Twinject are two different brand names for this device). All of these medications require a physician's order. All children at risk for an allergic reaction should have their own medicine at the child care center with orders for the staff to use it should a reaction occur.

How Can Staff Be Prepared For An Allergic Reaction?

All allergic children must have a detailed individualized care plan which is signed and regularly reviewed by parents/guardians and by the child's health care provider. The plan must include procedures in the event of a reaction. Make sure that all staff and volunteers are aware of the allergic child's special needs. Information should be posted in places where staff can be routinely reminded of the special needs. All medications must be checked routinely for expirations. There should always be someone at the center who knows CPR and all staff who care for the child for whom injectable epinephrine (Epi Pen or Twinject) is ordered should know how to use it. Your Child Care Nurse Consultant can provide training on using injectable epinephrine (call 520-741-4311).

Finding More Information About Food Allergies, Especially In Child Care

- The Food Allergy and Anaphylaxis Network (FAAN) 1-800-929-4040 or <http://www.foodallergy.org/>
- For a short video on how to use an EpiPen: <http://www.epipen.com/howtouse.aspx>
- For a short video on how to use the Twinject device: http://www.twinject.com/patients/twinject_training.html

Tips for Avoiding Common Food Allergens

Food Allergen	Unexpected Sources	Cooking Tips	Be Aware of
Milk	Sherbets, hotdogs, yogurt, quick bread, gravy, sauces and dips, cake mixes, fritters, nondairy creamers, whipped toppings, deli meats and tuna fish, imitation butter flavor, and water-added hams	Prepare allergy-free foods in large quantities and freeze the extra portions for use at a later date. Use kosher hot dogs for milk-allergic children.	Nondairy foods may contain casein or caseinate, a milk product. Examples include coffee whiteners, imitation cheeses, some soft-serve ice creams and whipped toppings. Most margarines contain milk, though there are a few that do not. Goat's milk is not a good alternative to cow's milk.
Eggs	Mayonnaise, as the custard base of ice creams and in batters to coat foods for frying, egg substitutes, some french vanilla ice cream flavors (but not usually regular vanilla ice cream), hermit crab food and tropical fish food	If a child has a confirmed allergy to egg whites or egg yolks, it is best to avoid all eggs, because it is almost impossible to avoid cross contact between them	Egg whites are sometimes used to give a shiny outer glaze to products such as pretzels, bagels, and other baked goods. Commercial egg substitutes often contain egg whites.
Peanuts	(And peanut butter) have been used as secret ingredients to thicken chili sauce, brown gravy and spaghetti sauce. Also found in hot cocoa, egg rolls, candy and gourmet popcorn, animal pellet food. bird seed (which some child care centers and kindergartens put in their sand tables) and rice cakes	Ask the child's parents what their doctor recommends regarding the use of peanut oil. Most doctors agree that commercially processed peanut oil is safe to use because the protein is removed during processing. Peanut oil labeled as cold pressed, expelled, or extruded, contains peanut proteins and is not safe. Some caution may be necessary, however.	One-third of children with a peanut allergy also react to tree nuts. Most doctors recommend these children avoid both peanuts and tree nuts.
Soybeans	Breads, baked goods, canned tuna, cereals, crackers, sauces, gravy, candies, soups. Fillers in some lunch meats, hotdogs or hamburgers, animal pellet food, low fat peanut butter, and water added hams	Most soybean oil is considered safe for individuals with soy allergy. Soy lecithin is also considered safe for most these individuals. Check with the child's parents and doctor for guidance.	

Food Allergen	Unexpected Sources	Cooking Tips	Be Aware of
Tree Nuts	Ice cream, yogurt, candies, cookies, breads, muffins, baked goods, breakfast cereals, granola bars, sauces, salad dressings, pie crusts. Some beanbags are filled with finely ground nut shells. Ice cream cakes and regular bakery-prepared cakes often have almond paste in their decorations.	Avoid cross contact of nut-containing foods with non-nut containing foods, particularly plain baked goods stored next to nut containing foods. Cross contact can also occur between cooking implements such as cookie sheets and serving utensils.	The following are a few of the common nuts that have caused severe anaphylactic reactions: almond, Brazil nut, cashew, filbert/hazelnut, hickory nut, pecan, pine nut (also called pinon, pinyon or pignolia nuts), pistachio, macadamia and walnut. Based goods such as brownies can sometimes include nuts. Cold-pressed oils, such as walnut oil or natural extracts such as almond extract may contain protein and cause an allergic reaction. Tree nuts can also be confused with peanuts and vice versa.
Wheat	Breads, buns, muffins, cakes, candy, cereals, cookies, crackers, lunch meats, pastas, pizza, pancakes, sauces and snack foods, some brands of soy sauce. Some processed foods, such as ice cream, contain wheat.	Use rice, oats, barley, corn, or rye flours alone or in combination as substitutes for wheat flour. Hispanic and Asian cookery are two sources for rice-based recipes. Use corn tortillas as a bread substitute. Thicken homemade soups with pureed vegetables such as peas, carrots and potatoes. Serve potatoes as a side dish for meals	Cream sauces often contain wheat. Some brands of ice cream contain wheat and at least one brand of hot dogs contains wheat. It is listed on the labels.
Fish/ shrimp	Hermit crab food and tropical fish food.		Worcestershire sauce and Caesar salad dressing often contain anchovy

Table adapted with permission from the Food Allergy and Anaphylaxis Network.

Creating Nutritious Meals and Snacks



Child care centers have an important/crucial role to play in nourishing the children they take care of every day. For many children, meals and snacks provided by the childcare center will be the most nutritious food they receive all day. While not every facility has a full licensed kitchen capable of preparing hot meals, there are nutritious options all along the food service continuum.

Healthful diets contain the amounts of essential nutrients and energy needed for growth and energy without taking in excess calories. Healthful diets provide the right balance of carbohydrate, fat, and protein to reduce risks for chronic diseases, and are a part of a full and productive lifestyle. Such diets are obtained from a variety of foods that are available, affordable, and enjoyable.

The Dietary Guidelines for Americans were revised in 2005. The United States Department of Agriculture (USDA) created a new food pyramid from these guidelines called MyPyramid. A kid's version (for children age 6-11 years) is available in this guide. Be aware that USDA will be updating the pyramid for young children in the future. For more information on the food pyramid go to: www.mypyramid.gov

Approximate daily amounts of foods from each group for young children:

- 1-1½ cups fruit
- 1-1½ cups vegetables
- 3 – 5 oz grains (or the equivalent)
- 2-4 oz meat and beans (or the equivalent)
- 2 cups milk and milk products
- 3-4 tsp. oil

MyPyramid For Kids
 Eat Right. Exercise Have Fun.
 MyPyramid.gov

Grains
 Make half your grains whole

Vegetables
 Vary your veggies

Fruits
 Focus on fruits

Milk
 Get your calcium-rich foods

Meat & Beans
 Go lean with protein

Oils Oils are not a food group, but you need some for good health. Get your oils from fish, nuts, and liquid oils such as corn oil, soybean oil, and canola oil.

★ Find your balance between food and fun ★ Fats and sugars — know your limits

USDA U.S. Department of Agriculture Food and Nutrition Service September 2005 (HS-58) www.MyPyramid.gov
 USDA is an equal opportunity provider and employer.

Four Key Nutrients

Because children are growing rapidly, four key nutrients need special emphasis: Vitamin A, Vitamin C, calcium and iron.

A good source of Vitamin A should be included in a child's diet at least three times a week. Good sources of Vitamin A are found in foods children generally like such as cantaloupe, mangos, sweet potatoes, and carrots. Liver, winter squashes and cooked greens (turnip greens, collards, spinach and kale) are also good sources of vitamin A.

Vitamin C should be included in children's meals and snacks each day. Citrus fruits (oranges, grapefruit, tangerines), melons, strawberries, kiwi, green and red peppers, broccoli and red cabbage and fortified 100% fruit juices are a good source of Vitamin C.

Calcium to build teeth and strong bones throughout life is found in milk and milk products such as cheese, cottage cheese and yogurt, salmon, and foods fortified with calcium. These foods in a low fat or fat-free form after the second birthday should be included in a child's diet at least three times daily.

Iron is used to carry oxygen in the blood. Iron-rich foods like cooked spinach, liver, clams and oysters may not be children's favorites, however, serving iron-fortified breads and cereals, dried fruits, peanut butter, canned tuna, dark turkey, lean meat, beans, soy products, pasta and eggs will help children ages 1-3 get the 7 mg. of iron they need and children ages 4-8 get the 10 mg. of iron they need each day. Iron from animal sources is absorbed better than that from plant sources.

Children need to want to eat what is served. Meals that include a variety of colors, tastes and textures are generally appealing and will at least insure that there is something for everyone. In general, following meal guidelines established by the United States Department of Agriculture, Child and Adult Care Food Program (CACFP) will insure that children are receiving healthy, nutritious meals.

CACFP meal patterns and amounts can be found here:

http://www.fns.usda.gov/cnd/care/ProgramBasics/Meals/Meal_Patterns.htm

Things to keep in mind:

- Whole fruits and vegetables are preferable to fruit and vegetable juice

- Whole grain bread and grain products (crackers, cereals, etc.) are preferable to white and refined bread and grains.
- For children who have had their second birthday, low fat (1%) or skim milk is preferable to 2% and whole milk.
- Meat alternatives (beans, eggs, nuts and nut butters – at the appropriate age) are good substitutions for meat, chicken and fish and can be put on the menu several times a week.
- Avoid commercial baked goods with hydrogenated oils – they contain trans fatty acids which have been shown to have an adverse effect on blood lipids.
- Keep high fat and high sugar foods to a minimum. CACFP recommends no more than 2 high sugar and 2 high fat foods per week. A high-fat food is one with greater than 35% total calories from fat. A high-sugar food is one with greater than 35% total sugar by weight.
- Do not add extra butter or sugar to recipes, stick to the amount in the recipe.
- Boiled, baked or steamed is better than fried.
- Applesauce or pureed fruit can be substituted for some of the butter or shortening in recipes for baked goods.
- Some children who are lactose intolerant can eat lowfat or non-fat yogurt. Ask parents.
- Cheese is higher in fat than lowfat or nonfat milk. Try reduced fat cheeses, and limit the amount of cheese in the menu.
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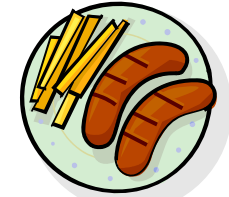
Children and Overweight

The subject of children and overweight cannot be adequately addressed in this document. However it cannot be passed without a mention either. The percentage of overweight children in the United States is growing at an alarming rate. Children are spending less time being physically active and more time in front of the TV and computer. Families eat away from home, or purchase quick-to-fix, high-fat and high-sugar foods. Since many children spend a great portion of their waking hours in the child care program, thoughtfully-planned healthy meals and exercise can be a part of their day. Find information at http://kidshealth.org/parent/general/body/overweight_obesity.html

USDA Quantity Recipes for Child Care

Quantity recipes from the CACFP program are available at http://www.nfsmi.org/Information/cc_recipe_index_alpha.htm These recipes from *Child Care Recipes: Food for Health and Fun from USDA's Child and Adult Care Food Program* have been analyzed for nutrient content. These recipes are only available on the web.

Implementing Family-Style Food Service



The term “family style meals” typically refers to meal service where adults and children eat together and children (after age two) serve themselves from multi-portion platters or bowls. The National Association for the Education of Young Children includes family-style meal service in its accreditation criteria¹ and the federal guidelines for Head Start require it.

Eating family style at school has many advantages. It is a great way for children to learn self-help skills, decision making, table manners, appropriate food portions, conversation skills, and how to share food and cooperate with others. During family style meals it is expected that the teacher sits at the table and eats with the children. This is a great time for teachers to talk about ideas that interest the children, and model good nutrition, appropriate eating habits, and table manners. Children can be encouraged to help with setting the table (passing out plates, utensils, cups, and napkins) and clearing their own items when done. They can also help by clearing the family style plates back to the kitchen. Learning and practicing self help skills such as these are also an important part of family style meals and snacks.

There must be enough food in each bowl or on each plate to serve each child at the table the correct serving amount. Bowls and plates may not be passed from table to table. Child and Adult Care Food Program requirements state that children at each table must have their own platters. There should be a serving piece for the children to place the food on to their plate. A child may not use his or her own fork or spoon to serve the food. Furthermore, Arizona Child Care Licensing rules require that milk be poured from its original container; consequently, using small pitchers of milk that children are better able to pour is not permitted. Also, a container of milk placed on the table is considered “served” and must be discarded.

Some guidelines for family style meals include:

- Handwashing! Adults and children should wash their hands with soap and water before setting the table or coming to the table to eat.

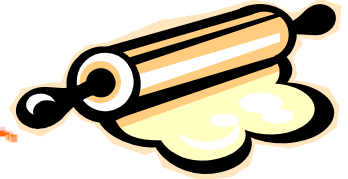
¹ NAEYC Criteria 3.D.07 *When provided, meals are served family-style and teaching staff sit and eat with children and engage them in conversation.*

- Safety first. Assure that finger foods and serving bowls are not too hot for children to handle.
- Make sure serving bowls or platters which will be passed are not too big. If the serving dishes are big or heavy or slippery, the caregiver can hold the bowl while children serve themselves.
- Use a textured mat under stationary serving dishes to prevent slipping.
- Make sure serving utensils are the right size and easy for small hands to operate.
- When children place serving utensils in their mouths, sneeze on them or otherwise contaminate them, the utensils must be changed out immediately.
- Any ready-to-eat food must be handled by teachers wearing single use non latex gloves.
- Each bowl or plate must have its own serving utensil to prevent cross contamination.
- If you use reusable utensils, they must be washed in a 3 compartment sink or commercial dishwasher
- You must have a specific cloth that is used only for wiping up food spills.
- Open food that is placed on the table with children must be discarded when the meal is complete.
- Unopened packages of food may be reused.

More Ideas

- Encourage use of those “magic words” *please* and *thank you* as items are passed and received.
- Encourage children to taste each food, but do not force them to eat any food. It may take many times being exposed to a food before a child is willing to accept it.
- Children can practice using identical serving utensils during play activities. For example: using tongs to pick up small blocks, manipulatives, or plastic foods in the dramatic play area, or using serving spoons to move rice between containers in the media table are good practice activities. Children can also practice pouring skills in the water table.
- Help children learn appropriate serving sizes. Caregivers can review age-appropriate portion sizes in the Meal Pattern Guidelines developed by the Child and Adult Care Food Program of the United States Department of Agriculture (see http://www.fns.usda.gov/cnd/Care/ProgramBasics/Meals/Meal_Patterns.htm), and then show children what that serving size looks like on a plate. Alternatively suggest how many spoonfuls a child should place on his plate. “Two spoonfuls of corn might be just right for you.” If hungry children know second helpings will be available they will be less likely to feel the need to take large portions.
- Use snack and mealtimes to introduce nutrition education to young children. See <http://www.healthychild.net/articles/na2meals.html> for some ideas.

Food Activities in the Classroom



Food activities in the classroom were a favorite among the centers who returned the surveys discussed in an earlier chapter. They know that food activities can teach or reinforce a wide variety of concepts.

What Do Children Gain From Preparing Food?²

- Experience with sharing as they take turns
- Creativity (i.e., changing flour and other ingredients into dough or decorating a cookie or muffin)
- Self-esteem as they gain a sense of accomplishment when a project is completed
- Fine and gross motor skills (i.e., rolling bread or cookie dough)
- Knowledge about safety (i.e., injury prevention and sanitation)
- Knowledge about parts of plants (i.e. stem, skin, and seeds)
- Knowledge about science (i.e., how plants, animals and people grow)

Careful Planning

Food activities which are listed on the lesson plan for the day and are not listed as part of day's food plan (menu) may be carried out with careful planning.

- Plan for the activity to have only a few simple steps so each child can be carefully monitored. You may want to have additional staff or volunteers for assistance.
- Plan your activity to use only ready-to-eat or low-risk foods. Do not use raw meat, fish, poultry or eggs. Substitute pasteurized egg product for raw eggs.
- Consider the benefits of individual projects where each child is preparing food for himself only.

² Benjamin, SE, ed. *Making Food Healthy and Safe for Children: How to Meet the National Health and Safety Performance Standards—Guidelines for Out-of-Home Child Care Programs*. Second Edition. Chapel Hill, NC: The National Training Institute for Child Care Health Consultants, Department of Maternal and Child Health, The University of North Carolina at Chapel Hill; 2007, p. 47.

- Offer small tasting-size samples—not full servings.
- You might have children participate in creating the food project, but have a twin which was prepared in Food Code compliant kitchen ready to serve. No waiting for the pumpkin pie to finish baking!
- Remember, it is the activity process, not the product that counts.

Sanitation

- If adults or children are not feeling well or have diarrhea or open sores, reschedule your food activity.
- Limit food activities during times of the year when children, staff, or their families are complaining of “stomach flu” (gastroenteritis). These outbreaks typically occur between October and April each year.
- Wash and sanitize the table or activity surface. You may wish to cover the surface with a clean vinyl tablecloth or butcher paper. Individual vinyl placemats might also be used.
- Make sure everyone’s hands are washed with soap and water. Have hand wipes readily available. If children’s hands become contaminated from coughing, sneezing or nose-picking direct them to wash their hands again.

Demonstrate The Use Of Knives And Equipment

- Even plastic serrated knives can be dangerous. Show children how to cut towards the table and away from their hands.
- Forks, toothpicks and skewers can quickly become pirate swords. Put a stop to horseplay right away.
- Wear potholders when handling hot items and allow pans and trays to cool before passing out food to children.

Handle Foods Safely

Obtain all foods for your activity from an approved and inspected source such as the local grocery store. The local farmer’s market may be a good source of pesticide-free produce. Do not allow families to provide the items for cooking projects that will be eaten by anyone other than their own child.

Pick up foods from the kitchen right before you begin the project and return unused food items, which have remained in their original container, to appropriate storage right away.

Some Healthy Food Activity Projects for Programs with a Commercial Refrigerator

Yogurt Sundaes

Low fat vanilla yogurt (fresh or frozen) with fresh fruit in season, canned fruit, raisins and other dried fruits (be aware of choking risks), sunflower seeds, or toasted oats.

Mini-Pizzas

English muffin or bagel halves, prepared pizza or pasta sauce, vegetable toppings (sliced mushrooms, onions, peppers, sliced olives, chopped broccoli florets, etc.), pineapple chunks, grated part-skim mozzarella cheese. These can be eaten cold or warmed until the cheese is melted.

Healthy Nachos

Baked tortilla chips, refried beans (gently warmed), grated reduced-fat cheddar cheese, grated zucchini, cooked corn, chopped lettuce or fresh spinach, diced tomatoes, salsa, low fat plain yogurt.

Some Healthy Food Activity Projects For Programs Without A Commercial Refrigerator

Peanut Butter Balls (for programs which do not have a child with a nut allergy)

- 1 Tablespoon peanut butter
- 1 teaspoon orange blossom honey
- 1 teaspoon powdered milk
- 2 Tablespoons crisp rice cereal
- 1 Tablespoon finely shredded coconut

For each child: Spoon the first 4 ingredients from the original container into a disposable bowl, and place the coconut onto a small plate. Children will mix the contents in the bowl with a disposable spoon. Form into walnut size balls and roll in shredded coconut to coat.

Cheesecake Snacks

Spread a graham cracker with 1 Tablespoon cream cheese (from a shelf-stable package) and 1 Tablespoon strawberry preserves sweetened with fruit juice.

Additional Food Activities

Additional food activities can be found in the National Food Service Management Institute newsletter for child care programs at. http://www.nfsmi.org/Information/Newsletters/Mealtime_memo_index.html#2007 .

Sample Lesson Plan: Spinach Quesadilla

Topic: Getting kids to eat vegetables

Target Audience: Preschool ages 3-5

Time: 30 + minutes

Objectives (What the audience will learn):

#1 Spinach is an edible leaf and good to eat

#2 We wash our hands before handling food we eat or prepare

Objective	Learning Activity	Equipment/ Supplies	Evaluation / Comments
# 1	Show spinach leaf – ask children what it is. Pass spinach around for children to feel.	Washed spinach leaf	Questions to ask – what part of the plant does this come from? Can you name some other leaves we eat?
# 2	Have children wash hands – ask why we wash hands before preparing or eating food.		Good to reinforce importance of hand washing.
# 1	Place a spinach leaf on plate in front of each Child. Have child remove stem and tear up spinach leaf into small pieces on plate.	Washed spinach, paper plates	
	Hold up whole wheat tortilla – ask what it is and if it looks different than the tortillas they eat at home. You could also use a corn tortilla.	Whole wheat tortilla, paper plate	Some children will have never seen a whole wheat tortilla, so you can explain it's made from whole wheat. For another lesson you could bring in white and whole wheat flour and have the kids compare them.
	Place 1 tortilla on plate for every 6 or so kids Have children put ripped spinach on the tortilla Teacher to sprinkle tortilla with 1 tsp of reduced fat dressing – toss lightly. Have each child sprinkle some cheese on top.	Reduced fat dressing, shredded cheese	Another way to do this would be to give each child a small corn tortilla and have them assemble their own quesadilla.

	Microwave quesadilla for 30 sec – 1 min. until cheese melts and spinach wilts.	Microwave or oven	
	While pizza is cooling read <i>Muncha, Muncha, Muncha</i>	<i>Muncha, Muncha, Muncha</i> by Candice Fleming, 2003, Simon & Schuster	This is an optional activity to keep the kids focused while the pizza is cooling. You can use this story to illustrate what the bunnies go through to get the vegetables.
	Cut pizza into appropriate # of servings. Have children serve themselves. Do tasting chart.	Large paper pad – tasting chart	

Ingredient List:

- 1 package of pre-washed spinach
- 1 package shredded reduced fat cheese – any kind
- 1 bottle reduced fat Italian salad dressing
- 1 package whole wheat or corn tortillas

Supplies:

- Paper plates – enough for each child and extras for food preparation
- Sharp knife for cutting pizza
- Microwave oven
- Measuring spoons

Food from Home



In many programs, meals and sometimes even snacks are sent from home each day. Programs whose food service style includes foods from home must work in partnership with parents to assure that the principles of food safety are observed and that children's nutritional needs are met.

Food Safety--Whose Job is It?

A peek at lunch sacks packed for children often raises concerns. Cut fresh fruits and vegetable sticks, and family meal leftovers are sent in plastic baggies or plastic containers with no cold gel packs to keep them cold and inhibit the growth of disease-causing germs. Paper sacks are unlabeled and the owner is identified by a process of elimination. What can you do?

Make it clear that you are concerned about the health of the children.

- Remind parents that it is *their* job to provide food items which do not need refrigeration (peanut butter sandwich and washed, uncut and unpeeled fruit) or to pack perishable lunches in an insulated bag with a cold source such as a cold gel freezer pack. Cold gel packs will keep food cold until lunchtime but are not recommended for all day storage. A frozen juice box will also help to keep food cold.
- Even if you provide a residential-style refrigerator with a thermometer which is checked and the temperature recorded each morning, have parents pack lunches as described above in case of a power outage or mechanical failure. Explain that you chill food to keep it tasty, NOT to assure its safety.
- Assign staff to check lunches on arrival. Perishable food that is not at a safe temperature (45°F or below for cold foods and 140°F or above for hot foods) when it arrives should be turned away and an alternative for the day discussed with the parent.

- If snacks or lunches are not stored in a refrigerator, keep them out of direct sunlight and away from heat sources.
- Make sure snacks and lunch sacks are labeled with the child's name and the date.
- Paper bags and plastic bags should be thrown away after lunch. They cannot be safely reused.
- Perishable foods not eaten at lunch should be thrown away. The only leftovers which can be sent home are foods which do not require refrigeration or maintenance of a hot temperature or something that came in a commercially-wrapped package and that was never opened.
- Do not knowingly accept high-risk foods to feed children. These foods include unpasteurized milk or juices, raw or undercooked meats, poultry or seafood, raw or undercooked eggs, tofu and raw sprouts. Also items with mold such as cheese, bread or cottage cheese.
- The Academy of Pediatrics and the American Public Health Association in *Caring for Our Children* (Second Edition) recommend that meals brought from home contain whole fruits (like apples, oranges, or pears) and commercially packaged foods only.
- Children under age 4 should not be given:
 - hot dogs (whole or cut into rounds)
 - nuts and seeds
 - chunks of meat or cheese
 - whole grapes
 - hard, gooey, or sticky candy
 - popcorn
 - chunks of peanut butter
 - raw vegetables
 - large marshmallows
 - chewing gum
- Food brought from home should satisfy the daily nutritional needs of the child. If not, the facility should supplement it with appropriate foods in order to meet CACFP Meal Pattern Guidelines.
- If the situation of inadequate food from home is chronic, the provider should also refer the parents to the child's health care provider or to a local nutrition specialist.
- If you accept family meal leftovers they must be reheated to a temperature of 165°. Use a quick read thermometer and wash it with soap and water between measuring temperatures, even in the same food. Make sure food cools to a safe level before it is served to the child. You might ask for leftovers to be heated at home and be sent in an insulated Thermos®-type bottle prepared in this way:

- Fill the bottle with boiling water and let it stand for a few minutes. Empty the bottle and then fill it with piping hot food. Keep the bottle closed until lunchtime.
- If you are concerned about the freshness of a food which is sent from home, do not serve it. Keep some shelf-stable pasta meals and other items which are allowed as a part of your Food Code compliant food service on hand. Discuss your concerns with parents at the end of the day. Offer some suggestions like those below.

The Lunch Bunch Challenge

Parents sometimes need suggestions to keep lunches simple to prepare, interesting and nutritious. Encourage them to include:

- Fresh fruit: Occasional dried fruit selections are okay, but dried fruit is high in sugar. Dried fruit and fruit snacks such as fruit rolls stick to teeth and promote tooth decay. Fresh fruit slices, orange sections, and grapes are a welcome inclusion in children's lunches. Cut grapes into halves or quarters to reduce the risk of choking. Toss fruit slices with lemon or lime juice to avoid browning.
- Vegetables, for children age 4 and over. Always rinse fresh fruits and vegetables and blot them dry with a paper towel before placing them in a child's lunch. Raw vegetable sticks with a low-fat dip are an enjoyable choice. Include carrot, celery, jicama, cucumber and zucchini sticks, snap peas, and cherry tomatoes. Some children might like some bolder tastes such as radishes, raw broccoli and cauliflower. Vegetables including pickles and lettuce can be added to sandwiches. Make sure to cut raw vegetables into sticks rather than disks to avoid a choking risk.
- Salads. Put a salad of grated carrots, diced apple and raisins in a pita with ranch dressing on the side.
- Sandwiches. Bread for sandwiches comes in many varieties. Try rolls, bagels, flat bread, focaccia, ciabatta, English muffins, or tortillas. Some children like more adult tastes like sourdough and rye breads. Even peanut butter is more interesting when spread on cinnamon swirl bread.
 - A meat, fish, poultry or other protein such as cheese or hard boiled egg or peanut butter (if the program is not nut-free), or beans should be included. Tuna, chicken, or egg salads, hummus, sliced meat such as roast beef, turkey and reduced sodium lean ham can be incorporated into a sandwich. Limit the amount of high fat and high salt lunch meats such as salami, bologna or braunschweiger (liver sausage).
 - Choose lower fat sandwich spreads such as reduced-fat peanut butter, reduced-fat mayonnaise and salad dressing, mustard (explore the many tasty varieties), and Hellmann's® Dijonnaise™. Some children enjoy a touch of pickle relish in their sandwich.

- Fully-cooked chicken nuggets and fish sticks. These can be eaten cold with a little dipping sauce to go with them.
- Leftover cold pizza, sushi rolls which do not contain uncooked fish.

You can provide parents information about food from home by using the brochure prepared on the next two pages. A place has been provided on the front page for you to place the name of your center. You can request an electronic copy of the document by contacting the Pima County Child Care Nurse Consultation Program at (520) 889-9543.

Four Key Nutrients

Because children are growing rapidly, these four key nutrients need special attention; Vitamin A, Vitamin C, calcium and iron.

A good source of Vitamin A should be included in a child's diet at least three times a week. Good sources of Vitamin A are found in foods children generally like such as cantaloupe, mangos, sweet potatoes, and carrots.

Vitamin C should be included in children's meals and snacks each day. Citrus fruits, melons, strawberries, kiwi, green and red peppers, broccoli and red cabbage and fortified 100% fruit juices are a good source of Vitamin C

Calcium to build teeth and strong bones throughout life is found in milk and milk products such as cheese, cottage cheese and yogurt, salmon (canned with bones), and foods fortified with calcium. These foods, in a low fat or fat-free form after the second birthday should be included in a child's diet at least three times daily.

Iron is used to carry oxygen in the blood. Iron-fortified breads and cereals, dried fruits, peanut butter, canned tuna, dark turkey, lean meat, beans, soy products, pasta and eggs will help children ages 1-3 get the 7 mg. of iron they need and children ages 4-8 get the 10 mg. of iron they need each day. Iron from animal sources is absorbed better than that from plant sources. Iron from food is also better absorbed when partnered with a Vitamin C-containing food.

Tips to Keep in Mind

- Keep high fat and high sugar foods to a minimum. A high fat food has greater than 35% total calories from fat. A high sugar food has greater than 35% total sugar by weight.
- Whole fruits and vegetables are preferable to fruit and vegetable juices. Limit juice to 1/2—3/4 cups of 100% juice each day.
- Whole grain bread and grain products (cereals and crackers) are better than white and refined bread and grains.
- After the second birthday, low fat (1%) and skim milk is recommended.
- Include foods with a variety of colors and textures.
- A napkin with a favorite cartoon character or a smiley face note from home is also a treat.
- For more information on children's nutrition visit: <http://www.brightfutures.org/nutritionfamfact/index.html>

The Food Service in Child Care Task Force

For more information contact:
Pima County Health Department
Division of Public Health Nursing
3950 S. Country Club Road, Suite 100
Tucson, AZ 85714



Lunches from Home

The Food Service in Child Care Task Force



Your Center Information



Make it Healthy

Children need healthy foods to provide energy for their busy day and necessary nutrients for growing bodies.

We routinely review the contents of children's lunches to make sure they are receiving the healthy foods they need.

If you have questions regarding foods to include in your child's lunch, center staff can provide more information.



Examples of a healthy lunch for a 3 year old:

1/2 sandwich made with whole wheat bread and 1 1/2 oz sliced turkey

1/2 cup apple slices or orange sections

4 oz skim or 1% milk

or

1/2 cup edamame (shelled, cooked soybeans)

4 whole wheat crackers

1/2 banana

4 oz skim or 1% milk

What to Include:

- ◆ **Grains *** (2 to 3 ounces)

1 ounce or 1 serving is equal to:

1 slice bread, dinner roll, pita

1/2 hamburger bun, English muffin, bagel

5 to 7 pretzels or crackers

3 square Graham crackers

1 cup unsweetened, ready-to-eat cereals

**At least 1/2 of the servings for the day should be whole grains*

- ◆ **Vegetables and Fruits** (1 to 2 cups)

1/2 cup or 1 serving raw, cooked, or canned fruit or vegetable is equal to:

1 small apple or banana

4 to 5 strawberries

5 to 6 baby carrots or pepper strips

- ◆ **Milk and Milk Products** (1 serving)

1 serving is equal to:

1 c. fat free or low-fat milk or yogurt

1 1/2 oz. low-fat cheese

- ◆ **Meat and Beans** (2 to 3 ounces)

1 ounce or 1 serving is equal to:

1 oz. lean meat, poultry, fish

1 egg

1 Tbsp. peanut or other seed/nut butter or

1/2 oz. peanuts, or other nuts

(if the center is not "nut-free")

Make it Safe

- ◆ Provide food items which do not need refrigeration. For example a peanut butter sandwich and washed, uncut and unpeeled fruit.
- ◆ Pack perishable lunches in an insulated bag with a cold source such as a gel freezer pack. A frozen juice box or frozen sandwich will also help to keep food cold.
- ◆ Even lunches kept in a refrigerator should be packed with cold source in case of a power outage or mechanical failure.
- ◆ Make sure snacks and lunch sacks are labeled with the child's name and the date.
- ◆ Ask if the center is "nut free."
- ◆ Lunch boxes and bags can quickly become sticky and grimy. A quick wipe with warm water and a little detergent will keep them clean.
- ◆ Beware of foods which may be a choking hazard for young children. Cut grapes, hot dogs, and raw vegetables into strips. Don't pack popcorn, or hard candy.
- ◆ For more information on lunch from home safety see:
<http://www.fcs.uga.edu/ext/pubs/fdns/FDNS-E-127.pdf>

Feeding Children in an Emergency



Emergencies come without warning. There are small emergencies such as a short power outage, and larger ones like normally dry arroyos which flood their banks cutting off access to neighborhoods and businesses like child care centers. Bee swarms located close to the center or an overturned, leaking fuel truck or rail car can create the need for a center to “shelter in place”. Whatever the reason, and whatever your style of Food Code compliant food service, you may need to feed children for a meal or two more than you planned!

Your Emergency Food Service Inventory

Your emergency food service inventory should contain supplies needed for three days in order to feed all children and adults in your program.

- Have plenty of bottled water for drinking and food preparation in case fresh water is unavailable. One gallon per adult per day is recommended by the federal government. This includes ½ gallon for drinking and water for handwashing and other needs. Children, nursing mothers, and ill people may need more water. Very hot temperatures can double the amount of water needed. It is recommended you purchase commercially bottled water. Keep bottled water in its original container and do not open it until you need to use it. Observe the expiration or “use by” date. If you choose to prepare your own water for storage see <http://www.fema.gov/plan/prepare/water.shtml> for instructions.
- If you care for infants, be sure you include infant bottles and powdered infant formula in your emergency supplies. If infants in your care require soy-based or alternate formulas for special nutritional needs, include them in your emergency supplies. Monitor expiration dates.
- Prepare your emergency pantry with foods such as:
 - Ready-to-eat canned meats, fruits and vegetables
 - Canned juices, milk, soup (if powdered, store extra water)
 - Manual can opener (not electric)
 - Non-fat dry milk
 - Peanut butter (if no one is allergic)
 - Pasta and spaghetti sauce

- Staples--sugar, salt, pepper
- High energy foods--peanut butter, jelly, crackers, granola bars, trail mix
- Foods for infants and children with special dietary needs, such as those with food allergies
- Comfort/stress foods--cookies, hard candy, sweetened cereals, lollipops, instant coffee, tea bags
- Food for classroom pets
- Watch expiration dates on all supplies.
- Keep disposable hand wipes with food supplies to facilitate cleaning hands before food preparation and eating if handwashing is not possible.
- Disposable plates, cups, bowls, utensils and napkins
- Bleach for creating an emergency sanitizing solution for infant bottles and other items (1 tablespoon of bleach to 1 gallon of water. Allow clean and rinsed dishes or bottles to soak for 2 minutes and then air-dry on a clean cloth).
- Keep the refrigerator and freezer doors closed as much as possible to maintain the cold temperature. The refrigerator will keep food safely cold for about 4 hours if it is unopened. A full freezer will hold the temperature for approximately 48 hours (24 hours if it is half full) if the door remains closed. You may want to move items from the refrigerator into the freezer for coldest storage. Keep an eye on the thermometer in the refrigerator and freezer.

More information about planning for sheltering-in-place can be found here:

- *Arizona Health and Safety Policy Manual for Child Care Centers*, http://gocyf.az.gov/SR/PR_ChildCare.asp , pages 7-8.
- Disaster Preparedness Guide <http://columbus.redcross.org/guide.html>
- Guidelines for Managing Food Supplies www.fema.gov/plan/prepare/foodmanage.shtm

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