



# Building Mealtime Environments and Relationships

An Inventory for Feeding Young Children in Group Settings

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# Using the Building Mealtime Environments and Relationships Inventory (BMER)

## Introduction

Building Mealtime Environments and Relationships: An Inventory for Feeding Young Children in Group Settings is designed to examine group care and education settings including child care centers, preschools, and Head Start centers. The BMER is not designed for use in family child care mealtimes, or for family meals. The BMER is an inventory of strategies for evaluating feeding children ages 24 months through five years. It is designed for evaluation of full meals, but may be used to inventory strategies at snacktimes. The BMER is most appropriate for settings where food is prepared and served, though programs that use lunchbox meals may adapt the tool to fit their needs.

### Who should use the Building Mealtime Environments and Relationships Inventory?

Managers and supervisors, lead teachers, nutrition consultants, and health consultants are appropriate users of the BMER. Researchers may use the BMER to inventory mealtime strategies across group settings, though the BMER is still under study for statistical reliability and validity.

### Why should I use the BMER Inventory?

The BMER Inventory is designed to help staff examine mealtime practices and mealtime environments. Lead teachers or supervisors make observations to develop a profile of the meal setting. Staff can use the criteria from the BMER to confirm current practices, and to discuss changes or improvements in their meal practices. Ratings may be used to plan staff in-service programs to focus on specific mealtime practices.

## Directions for Use

### How do I use the BMER Inventory?

The rater selects one room and observes all the staff and the children at the mealtime in that room. If the children eat in a cafeteria setting, the rater evaluates only those staff and children who are in the selected group.

The BMER Inventory is a direct observation tool. Make a copy of each Topic Area page from the inventory and a Summary Recording Graph for each classroom to be observed. The rater starts the observation when the transition to a meal begins. This is usually signaled by tables being cleaned for the meal, and when children and staff begin to wash their hands in preparation for the meal. The observation ends when the last table is cleared and all the children complete mealtime routines, such as hand-washing, clearing their places, or pushing in chairs.

### What if I want to use part of the BMER Inventory?

The BMER includes 12 Topic Areas arranged in three Clusters. Users may rate all 12 Topic Areas for a comprehensive review of mealtime practices in a center or room. Alternatively, users may choose to rate all Topic Areas in a single Cluster. Most simply, users may choose to rate only one Topic Area from a Cluster. Here are the three Clusters and the Topic Areas in each Cluster:

#### Cluster One: Mealtime Setting

- Equipment
- Mealtime Environment
- Sanitation at the Table
- The Food
- Preventing Choking

#### Cluster Two: Children's Development

- Food Intake
- Social and Emotional Development (Self-regulation)
- Mealtime Motor Skills
- Conversations (Listening and Speaking Skills)

#### Cluster Three: Guiding Individuals and Groups at Mealtimes

- Routines and Schedules
- Adult Practices at Mealtimes
- Community Building

# Directions for Using the BMER

## Scoring

Each Topic Area earns a categorical rating. The categories are **Inadequate Practice**, **Minimal Practice**, **Effective Practice**, and **Ideal Practice**. Raters directly observe for the criteria listed under each category within each Topic Area.

Under each category, make a check beside the practice if it is observed. Total the number of checked items, and write that number in the oval in the lower right-hand corner of each category column. If all items are checked in a category, the category is considered complete, and a step is achieved.

Center Name: ABC Center Classroom Name: Preschool Date: 4/24

**TOPIC AREA: Equipment**

Mealtime equipment helps children develop skills for eating. Equipment refers to eating and serving utensils, dishes, tables, and chairs. Look for quality of equipment, use of equipment, and types of equipment.

**0 Inadequate Practice**

- Styrofoam plates, which are a choking hazard, are used.
- Food is placed on napkins, or on the same table-top.
- Fillable or breakable plastic with sharp edged corners and forks.
- Chairs are not available for all children.

\* This practice is effective with preschoolers. Toddlers should have blankets that is appropriate to the food prepared for them. Ask classroom staff about opportunities for toddlers to use forks, spoons, and knives.

**1 Minimal Practice**

- Children eat at tables with a place to sit for each child.
- Tables and chairs are in good repair.
- Tables and chairs are used so that children's feet are on the floor or on a footrest for stability.
- Plates are opaque steel or non-porous, heavy duty plastic.
- Plates and/or bowls are non-porous and unbreakable, or heavy weight, single-use paper.
- Serving dishes are non-porous and unbreakable, or heavy weight, single-use paper.
- Serving dishes are available for children at table level.
- Serving utensils are provided for all foods.

5 / 8

**2**

Meets all Minimal Practices, and at least half of the practices from Effective Practice.

**3 Effective Practice**

- Enough tables are available for children to sit at small groups.
- Child sized tables and chairs are used.
- Chairs are a comfortable height with knees being mid-thigh on the children.
- Child sized plates and/or bowls are used.
- Plates have curved lips for children's ease of scooping food.
- Child sized eating utensils are available.
- Forks, forks, and spoons are available at every meal.
- Child sized beverage containers are used.
- Beverage containers are stable and do not tip easily during use.
- Child sized serving dishes are used.
- Serving bowls with rims are used.
- Small pitchers are used.
- Child sized serving utensils are used to help children serve child sized portions.
- Spare utensils are readily available at the table side.

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**4**

Meets all Minimal Practices and Effective Practices, and at least half of the practices from Ideal Practice.

**5 Ideal Practice**

- Tables and chairs are appropriate size for individual children.
- Tables and chairs are free of permanent stains, cracks, and chips.
- Dishes match and are attractive.
- Serving utensils are equally distributed from eating utensils in size and/or color.

\_ / 4

**TOPIC AREA: Equipment**  
Rating: 0 1 **2** 3 4 5

**2** The second step is reached by achievement of ALL of the items in **Minimal Practice**, and at least half of those in **Effective Practice**. A rating of 2 is earned.

**3** The third step and category is **Effective Practice**. If ALL items are checked in this category in addition to ALL those in **Minimal Practice**, a rating of 3 is earned. Items in **Effective Practice** reflect practices that support and challenge children for healthy mealtime development.

**4** The fourth step is reached by achievement of ALL of the items in **Minimal Practice** and ALL of the items in **Effective Practice**, and at least half of those in **Ideal Practice**. A rating of 4 is earned.

**5** The fifth and highest step is **Ideal Practice**. This step is reached by achievement of all items in **Minimal Practice** and **Effective Practice**, plus ALL items described in the **Ideal Practice** category. Items in the **Ideal Practice** category represent practices that offer a comprehensive, highly supportive feeding environment for children. A rating of 5 is earned for reaching this step.

## Assigning Ratings to the Scores

In the lower right-hand corner of each Topic Area page is a box to record the Topic Area rating, based on the steps achieved. Circle the number that indicates the highest step achieved in a Topic Area.

**TOPIC AREA: Equipment**  
Rating: 0 1 2 3 4 5

## Graphing Ratings

A Summary Reporting Graph is provided to develop a visual representation of the ratings for a classroom (see pg. 19). Use a separate graph for each room that is rated. Place ratings on the graph by putting a dot on the graph for each Topic Area rating.

## Resources

Guidelines from national agencies, professional organizations, and research literature provide a foundation for the items in each Topic Area. A bibliography is provided for raters to use to learn more about the items.

**0** The first category is **Inadequate Practice**. A rating of 0 is earned if ANY practices are observed in this category. Practices listed under this category are unsafe and potentially harmful to children. Note that this category is not a step in building quality mealtimes. It appears below the step threshold.

**1** The first step and next category is **Minimal Practice**. If ALL items are checked in this category, a rating of 1 is earned. Practices in this category are necessary for providing an emotionally and physically safe environment.

# Cluster One: Mealtime Setting

Use the **Mealtime Setting** Cluster to examine the setting in which meals are served and eaten. This grouping of five Topic Areas focuses on the physical environment and practical surroundings of the mealtime.

Topic Areas in the **Mealtime Setting** Cluster:

**Equipment** - Mealtime equipment helps children develop skills for eating. Equipment refers to eating and serving utensils, dishes, tables, and chairs. Look for quality of equipment, use of equipment, and types of equipment.

**Mealtime Environment** - The physical space for eating includes the sights, sounds, smells, and layout of the mealtime area.

**Sanitation at the Table** - Sanitation at the table refers to the cleanliness of the feeding environment and the hygiene practices of those who are eating. Aspects of cleanliness are observed in how tables are cleaned, how spills are dealt with, and how adults ensure children's health and safety during passing and serving of food.

**The Food** - When determining what children are offered to eat, it is necessary to look at the total picture over a course of several menus. This section should be rated by examining written menus and speaking with caregivers, cooks, or the center director, as well as through direct observation.

**Preventing Choking** - Choking is a special hazard for young children who are just developing swallowing and chewing skills. Choking on food can be fatal to children. Adults must offer mealtime settings that minimize choking hazards.

*Common choking hazards for young children are:*

raw carrots	peanuts and other whole nuts
raisins and other dried fruit	chunks of peanut butter
whole grapes	chunks of meat
raw apples	hot dogs (whole or cut into rounds)
popcorn	pretzels and chips

*Guideline for food preparation:*

Infants – Cut foods into pieces no larger than  $\frac{1}{4}$  inch cubes.

Toddlers up to age 4 – Cut foods into pieces no larger than  $\frac{1}{2}$  inch cubes.

## TOPIC AREA: Equipment

Mealtime equipment helps children develop skills for eating. Equipment refers to eating and serving utensils, dishes, tables, and chairs. Look for quality of equipment, use of equipment, and types of equipment.

**1 Minimal Practice**

- Children eat at tables with a place to sit for each child.
- Tables and chairs are in good repair.
- Tables and chairs are sized so that children's feet are on the floor or on a footrest for stability.
- Flatware is stainless steel or non-porous, heavy duty plastic.
- Plates and/or bowls are non-porous and unbreakable, or heavy-weight, single-use paper.
- Serving dishes are non-porous and unbreakable, or heavy-weight, single-use paper.
- Serving dishes are available for children to pass food.
- Serving utensils are provided for all foods.

\_\_ / 8

**2**

**Meets all Minimal Practices, and at least half of the practices from Effective Practice.**

**3 Effective Practice**

- Enough tables are available for children to eat in small groups.
- Child-sized tables and chairs are used.
- Chairs are a comfortable height with tabletops hitting mid-chest on the children.
- Child-sized plates and/or bowls are used.
- Plates have curved lips for children's ease of scooping food.
- Child-sized eating utensils are available.
- Knives, forks, and spoons are available at every meal.\*
- Child-sized beverage containers are used.
- Beverage containers are stable and do not tip easily during use.
- Child-sized serving dishes are used.
- Serving bowls with rims are used.
- Small pitchers are used.
- Child-sized serving utensils are used to help children serve child-sized portions.
- Spare utensils are readily available at the table-side.

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**4**

**Meets all Minimal Practices and Effective Practices, and at least half of the practices from Ideal Practice.**

**5 Ideal Practice**

- Tables and chairs are appropriate size for individual children.
- Tables and chairs are free of permanent stains, cracks, and chips.
- Dishes match and are attractive.
- Serving utensils are visually different from eating utensils in size and/or color.

\_\_ / 4

**0 Inadequate Practice**

- Styrofoam plates, which are a choking hazard, are used.
- Food is placed on napkins, or on the bare table-top.
- Flatware is breakable plastic with sharp edged spoons and forks.
- Chairs are not available for all children.

\* This practice is effective with preschoolers. Toddlers should have flatware that is appropriate to the food prepared for them. Ask classroom staff about opportunities for toddlers to use forks, spoons, and knives.

<b>TOPIC AREA: <i>Equipment</i></b>						
<b>Rating</b>	0	1	2	3	4	5



## TOPIC AREA: Mealtime Environment

The physical space for eating includes the sights, sounds, smells, and layout of the mealtime area.

**0 Inadequate Practice**

- Noises and sounds unrelated to the mealtime predominate.
- Non-food odors are present in the eating area (e.g., diapering, cleaning agents, garbage, air fresheners).
- Eating area is cluttered.
- Children sit at the tables with limited space for eating.
- Children stand or kneel to eat.

**1 Minimal Practice**

- Adequate space is provided for each child to pass, serve, pour and eat.
- There is adequate space for adults to move easily up and down from their chairs and around the table.
- Sounds in the room are mostly those related to the mealtime.

\_ / 3

**2**

**Meets all Minimal Practices, and at least half of the practices from Effective Practice.**

\_ / 3

**3 Effective Practice**

- Mealtime has few distractions such as background noise, clutter on the table, adults getting up and down from the table, traffic in the room, uncleaned spills, and adults talking over children's heads.
- Non-carpet flooring in the eating areas facilitates sanitary conditions.
- Furniture is spaced so that children can sit, rise, and walk around the table without interfering with others at the table.

\_ / 3

**4**

**Meets all Minimal Practices and Effective Practices, and at least half of the practices from Ideal Practice.**

\_ / 3

**5 Ideal Practice**

- Mealtime tables are located away from the flow of activities such as handwashing, toileting, diapering, and setting up for nap time.
- To decrease distractions, meal-related items are readily available to staff on table-side carts or shelves.
- A source of running water is easily accessible by children and staff during the meal.

\_ / 3

TOPIC AREA: <i>Mealtime Environment</i>						
Rating	0	1	2	3	4	5

## TOPIC AREA: Sanitation at the Table

Sanitation at the table refers to the cleanliness of the feeding environment and the hygiene practices of those who are eating. Aspects of cleanliness are observed in how tables are cleaned, how spills are dealt with, and how adults ensure children's health and safety during passing and serving of food.

**1 Minimal Practice**

- Adults are present during the entire meal.
- Tables are washed with soap and water before and after the meal.
- Tables are sanitized with non-toxic sanitizing solution before and after the meal.
- Adults and children wash hands before the meal, during the meal if necessary, and after the meal.
- Staff and children use warm, running water, soap, and paper towels for handwashing.
- Food arrives ready to be served with minimal handling by the adult.
- Food is covered until it is served.
- Each child has a plate or bowl for food to be placed on.\*
- Children have adequate space to pass, serve, and eat.
- Adults ensure children use serving utensils for serving only.
- Food and tableware are removed immediately if they become contaminated.
- Soiled tableware is removed immediately after completion of the meal.
- Spills are cleaned up immediately.
- Cloths and paper towels are used only once.
- Soiled paper towels or cloths are removed from the table immediately.
- Floors are swept and mopped during and after the meal to remove spills or crumbs.

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**2**

**Meets all Minimal Practices, and at least half of the practices from Effective Practice.**

\_ / 5

**3 Effective Practice**

- Adults are seated to attend to contamination issues during passing and serving.
- Children are within arms reach of adults.
- Children know and use routines for passing, serving, cleaning up spills, and clearing their place after meals.
- Napkins are available at the table.
- The eating environment is set up to address contamination situations immediately (i.e., extra eating and serving utensils are readily available, and materials for cleaning up spills are at the table side).

\_ / 5

**4**

**Meets all Minimal Practices and Effective Practices, and at least half of the practices from Ideal Practice.**

\_ / 3

**5 Ideal Practice**

- Serving utensils are visually different in color and/or size from eating utensils.
- Adults anticipate contamination issues, and use preventive strategies.
- Adults talk with children to avoid cross contamination including discussion of concepts such as "yours," "mine," and "ours."

\_ / 3

**0 Inadequate Practice**

- Food is served directly on the table rather than on a plate.
- Adults and children wash their hands sporadically either before or after the meal, or not at all.
- Sponges or cloths are used and reused for clean-ups.
- Food sits uncovered, waiting to be served.
- Food arrives needing significant additional handling by the classroom staff.

\* Eating from plates helps reduce contamination. Though food may be put on sanitized highchair trays for infants, plates should be provided for older infants and toddlers.

<b>TOPIC AREA:</b> <i>Sanitation at the Table</i>
<b>Rating</b> 0   1   2   3   4   5

## TOPIC AREA: The Food

When determining what children are offered to eat, it is necessary to look at the total picture over a course of several menus. This section should be rated by examining written menus and speaking with teachers, cooks, or the center director, as well as through direct observation.

**1 Minimal Practice**

- Drinking water is available in the room during the meal.
- Enough food is available to satisfy individual children's hunger needs.
- Menus include a variety of foods.\*
- Menus are posted for staff and parents.
- Menu planning is based on a nutritionally sound meal pattern. *See next page for USDA Child Care Meal Pattern Guidelines.\**

\_ / 5

**2**

**Meets all Minimal Practices, and at least half of the practices from Effective Practice.**

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**3 Effective Practice**

- Drinking water is available in pitchers at the table.
- Children are allowed additional portions.
- Food served at a meal includes a variety of textures, shapes, temperatures, sizes, and colors.
- Foods are served that reflect the ethnicity and culture of all children in the center.\*
- Menus are discussed with children.
- The center has a plan for cooperating with physician-prescribed diets (e.g., allergies, diabetes).\*\*
- The center has a plan for working with parents who have dietary requests (e.g., religious, cultural, vegetarian) for their children.\*\*
- Menu planning is flexible, allowing new foods to be introduced routinely.\*\*\*

\_ / 6

**4**

**Meets all Minimal Practices and Effective Practices, and at least half of the practices from Ideal Practice.**

\_ / 6

**5 Ideal Practice**

- Food is arranged in bowls or on platters to be visually appealing and appetizing.
- When a new food is offered, it is offered more than one time during the meal so children become familiar with the new food.\*\*\*
- When a new food is offered, it is offered repeatedly in the menu cycle so children become familiar with the new food.\*\*\*
- Children have opportunities to provide input on food and menus.\*\*\*\*
- Menus are approved by a nutrition professional.\*\*
- Nutrition professional is regularly involved in staff training.\*\*

\_ / 6

**0 Inadequate Practice**

- Drinking water is not available during the meal.
- Vegetables and fruits are not offered.
- Food runs out before children's hunger is satisfied.
- Milk is not offered.
- Fruit drinks other than 100% juice are offered.

\* Review menus.  
 \*\* Ask director.  
 \*\*\* Ask cook.  
 \*\*\*\* Ask classroom staff.

**TOPIC AREA: The Food**

**Rating** 0 1 2 3 4 5

# USDA Child Care Meal Pattern Guidelines

<b>Breakfast<sup>1</sup></b>	<b># per meal</b>	<b>Ages 1 - 2</b>	<b>Ages 3 - 5</b>
<b>Milk</b> - fluid milk	1	1/2 cup	3/4 cup
<b>Fruit or vegetable or juice<sup>2</sup></b>	1	1/4 cup	1/2 cup
<b>Grains/bread<sup>3</sup></b> - bread, bread alternative, or cereal bread (enriched or whole-grain) combread/biscuit/roll/muffin cold dry cereal hot cooked cereal pasta/noodles/grains	1	1/2 slice 1/2 serving 1/4 cup 1/4 cup 1/4 cup	1/2 slice 1/2 serving 1/3 cup 1/4 cup 1/4 cup
<b>Lunch or Supper<sup>1</sup></b>			
<b>Milk</b> - fluid milk	1	1/2 cup	3/4 cup
<b>Fruit or vegetable or juice<sup>2</sup></b>	2	1/4 cup	1/2 cup
<b>Grains/bread<sup>3</sup></b> - bread, bread alternative, or cereal bread (enriched or whole-grain) combread/biscuit/roll/muffin cold dry cereal hot cooked cereal pasta/noodles/grains	1	1/2 slice 1/2 serving 1/4 cup 1/4 cup 1/4 cup	1/2 slice 1/2 serving 1/3 cup 1/4 cup 1/4 cup
<b>Meat/meat alternative</b> meat/poultry/fish (cooked, lean meat without bone) alternate protein product cheese egg cooked dry beans or peas yogurt	1	1 oz. 1 oz. 1 oz. 1/2 1/4 cup 4 oz.	1 1/2 oz. 1 1/2 oz. 1 1/2 oz. 3/4 3/8 cup 6 oz.
<b>Snack<sup>1</sup></b> include two of the four components			
<b>Milk</b> - fluid milk	1	1/2 cup	1/2 cup
<b>Fruit or vegetable or juice<sup>2</sup></b>	1	1/2 cup	1/2 cup
<b>Grains/bread<sup>3</sup></b> - bread, bread alternative, or cereal bread (enriched or whole-grain) combread/biscuit/roll/muffin cold dry cereal hot cooked cereal pasta/noodles/grains	1	1/2 slice 1/2 serving 1/4 cup 1/4 cup 1/4 cup	1/2 slice 1/2 serving 1/3 cup 1/4 cup 1/4 cup
<b>Meat/meat alternative</b> meat/poultry/fish alternate protein product cheese egg cooked dry beans or peas yogurt	1	1/2 oz. 1/2 oz. 1/2 oz. 1/2 1/8 cup 2 oz.	1/2 oz. 1/2 oz. 1/2 oz. 1/2 1/8 cup 2 oz.

<sup>1</sup> The meal patterns specify minimum portion sizes for each meal component. Children may be offered larger portions based on their greater food needs. They may not be offered less than the minimum quantities listed above.

<sup>2</sup> Fruit or vegetable juice must be full-strength, 100% juice.

<sup>3</sup> Breads and grains must be made from whole-grain or enriched meal or flour. Cereal must be whole-grain or enriched or fortified.

## TOPIC AREA: Preventing Choking

Choking is a special hazard for young children who are just developing swallowing and chewing skills. Choking on food can be fatal to children. Adults must offer mealtime settings that minimize choking hazards. Common choking hazards for young children are: raw carrots, raisins and other dried fruit, hot dogs (whole or cut into rounds), whole grapes, chunks of meat, popcorn, pretzels and chips, raw apples, peanuts and other whole nuts, and chunks of peanut butter.

**1 Minimal Practice**

- Adults sit down to supervise children before food is passed.
- Food is prepared, presented, or modified to avoid choking hazards that are common to the youngest child in the group.
- Adults are always within sight, sound, and physical response range to children.
- Adults stay with children throughout the meal.
- Adults give directions to prevent choking (i.e., keep all four chair legs on the floor, avoid talking or laughing with food in mouth, take small bites, and finish chewing before leaving the table).
- Adults provide assistance to children who gag or choke.\*
- Throughout the mealtime, at least one adult is in the room who is CPR and First Aid certified.\*\*

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**2**

**Meets all Minimal Practices, and at least half of the practices from Effective Practice.**

\_ / 2

**3 Effective Practice**

- Adults eat the same foods as the children to identify subtle choking hazards.
- All staff in the room are CPR and First Aid certified.\*\*

\_ / 2

**4**

**Meets all Minimal Practices and Effective Practices, and at least half of the practices from Ideal Practice.**

\_ / 3

**5 Ideal Practice**

- The center provides choking education for children, parents, and staff.\*\*\*
- An ideal adult/child ratio of 1:4 at each table for toddlers and 1:6 at each table for preschoolers is maintained during the mealtime.
- The center has an established plan for flexible staffing at mealtimes as needed (e.g., floater available).

\_ / 3

**0 Inadequate Practice**

- Foods that are high risk choking hazards are on the menu.
- Children eat at tables without an adult near the table.
- Children are allowed to walk around with food in their mouths.
- Adults provide inappropriate modeling by eating and drinking while walking around the room.

\* If no incidents are observed, ask how gagging and choking at the table are handled.  
 \*\* Current CPR/First Aid card on file.  
 \*\*\* Ask staff.

**TOPIC AREA: Preventing Choking**  
 Rating 0 1 2 3 4 5

## Cluster Two: Children's Development

Use the **Children's Development** Cluster to examine the responsiveness and appropriateness of mealtime environments for children's physical, social, emotional, and cognitive needs. Cluster Two includes four Topic Areas.

Topic Areas in the **Children's Development** Cluster:

**Food Intake** - Adults help children stay in touch with their internal cues of hunger and fullness using many different strategies. This section includes strategies that support children to self-regulate their intake of food. Concepts for this Topic Area are the amount of food provided, whether or not children are allowed to serve themselves, and the level of children's choice in what and how much they eat.

**Social and Emotional Development (Self-regulation)** - During mealtimes, children learn skills that help them regulate their emotions and behaviors with others. Learning social skills such as passing and requesting food allows children to be successful during mealtimes. Gaining emotional skills such as trusting and making choices helps children become healthy eaters. Adults who have developmentally appropriate expectations of children set physical and emotional environments where children are challenged, but not frustrated.

**Mealtime Motor Skills** - Mealtimes offer opportunities for children to develop physical skills. Serving style at the table, utensils and dishes provided, and how food is presented impact the physical skills that children practice during meals.

**Conversations (Listening and Speaking Skills)** - This Topic Area is focused on the talk that takes place during the meal. This talk ranges from adults giving directions to children, to adults and children using give and take in their conversations. Observations in this Topic Area include examinations of how adults encourage or extend children's talk at the meal.

## TOPIC AREA: Food Intake

Adults help children stay in touch with their internal cues of hunger and fullness using many different strategies. This section includes strategies that support children to self-regulate their intake of food. Concepts for this Topic Area are the amount of food provided, whether or not children are allowed to serve themselves, and the level of children's choice in what and how much they eat.

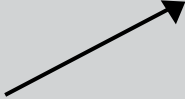
**1 Minimal Practice**

- Children serve themselves, at least part of the meal.
- Enough food is available to satisfy individual children's hunger needs.
- Adults support children as they learn how to choose portion sizes to match how much they can eat.
- Children are not required to eat either a set amount of food, or a particular food.\*
- Children are not required to try or taste a food they refuse.\*
- Adults acknowledge children's differences and preferences for food, but do not compare children's eating characteristics.
- Food is offered at least every three hours so that children's hunger does not overwhelm their ability to self-regulate food intake.\*\*

\_ / 7

**2**

**Meets all Minimal Practices, and at least half of the practices from Effective Practice.**




**3 Effective Practice**

- Staff, in addition to the cook, cooperate in determining how much total food is necessary to meet the group's hunger needs.\*\*\*
- Adults assure children that there is enough food.
- Children have enough time to eat until they are no longer hungry.
- Adults do not praise children for finishing food, or cleaning their plates.

\_ / 4

**4**

**Meets all Minimal Practices and Effective Practices, and at least half of the practices from Ideal Practice.**



**5 Ideal Practice**

- Adults have a system for informing parents about what their child ate throughout the day.\*\*\*\*
- Adults have a system for informing parents about how much their child ate throughout the day.\*\*\*\*

\_ / 2

**0 Inadequate Practice**

- Not enough food is available to satisfy children's hunger.
- Adults determine how much food is placed on children's plates.
- Adults insist that children eat more or less than they want.
- Children are required to eat all the food on their plates.
- Adults talk negatively about children's eating characteristics to staff or parents, within hearing range of children.
- Adults compare children's behaviors and characteristics as a strategy to get children to eat.

\* Exception may be made if a documented health order is on file.  
 \*\* Check schedule.  
 \*\*\* Ask how the cook determines the amount of food to be prepared.  
 \*\*\*\* Ask staff to see forms used to report to parents.

<b>TOPIC AREA: Food Intake</b>						
<b>Rating</b>	0	1	2	3	4	5

## TOPIC AREA: Social and Emotional Development (Self-regulation)

During mealtimes, children learn skills that help them regulate their emotions and behaviors with others. Learning social skills such as passing and requesting food allows children to be successful during mealtimes. Gaining emotional skills such as trusting and making choices helps children become healthy eaters. Adults who have developmentally appropriate expectations of children set physical and emotional environments where children are challenged, but not frustrated.

### 1 Minimal Practice

- There is a predictable sequence for mealtime activities so that children can develop security and trust.
- Opportunities to eat are scheduled no more than three hours apart so that children's hunger does not overwhelm their ability to regulate their emotions and behavior.\*
- There is enough food for children to eat until satisfied.
- Children have enough personal space for serving their own plates, eating, and passing food to others.
- Adults help children take turns as they pass or wait for food.
- Adults diffuse conflicts.\*\*

\_\_ / 6

**2**  
Meets all Minimal Practices, and at least half of the practices from Effective Practice.

### 3 Effective Practice

- Adults use a variety of strategies to support children as they learn to wait.
- Children have appropriate serving utensils for the food being offered.
- Adults use strategies that match the abilities of individual children for self-control (e.g., varying expectations for children's ability to wait, children's messiness, or children's ability to request food).
- Children have opportunities to make choices within limits.
- Adults help children cope with successes and failures (e.g., serving themselves, cleaning spills, or waiting).
- Children have ample time to eat and practice new interaction skills.
- When conflicts arise, adults help children negotiate.\*\*

\_\_ / 7

**4**  
Meets all Minimal Practices and Effective Practices, and at least half of the practices from Ideal Practice.

### 5 Ideal Practice

- Children have opportunities to solve their own challenges.
- Children have opportunities to take risks (e.g., choosing food, taking turns, trying new foods, and mixing foods together).

\_\_ / 2

### 0 Inadequate Practice

- Mealtime is rushed.
- Adult-sized eating utensils that limit children's success in eating are used.
- Adult-sized serving utensils that limit children's success in serving are used.
- Children have few choices (e.g., children's plates are served for them, portion sizes are pre-determined, children have to eat all the food on their plates).

\* Check schedule.

\*\* If no conflicts are observed, ask adults how conflicts at the table are handled.

**TOPIC AREA: Self Regulation: Social and Emotional Development**

**Rating**      0   1   2   3   4   5



## TOPIC AREA: Mealtime Motor Skills

Mealtimes offer opportunities for children to develop physical skills. Serving style at the table, utensils and dishes provided, and how food is presented impact the physical skills that children practice during meals.

**1 Minimal Practice**

- Food is prepared and presented so that children can eat independently.
- Child-sized serving utensils are available.
- Child-sized eating utensils are available.
- Children pass and serve some items from serving dishes.\*
- Utensils offered are appropriate for the food served (e.g., fork for a salad).
- Adults respond calmly and non-punitively to spills and imprecise motor movements during eating and serving.

\_ / 6

**2**

**Meets all Minimal Practices, and at least half of the practices from Effective Practice.**

**3 Effective Practice**

- Menus allow for opportunities to spread, pour, spear, ladle, and cut a variety of foods.\*\*
- Food is prepared and presented considering children's physical skills for passing and serving food.
- Knives, forks, and spoons, and/or culturally relevant utensils are available at every meal.\*\*\*
- The mealtime schedule allows time for children to practice using utensils.
- Serving bowls and pitchers are not too full or too heavy for children to serve themselves.
- Adults allow children time to try skills without stepping in prematurely.
- Adults use hand-over-hand assistance only when necessary to assist a child in learning a new skill or when a child is frustrated.
- Adults plan menus to match children's biting and chewing skills, including attention to consistency, size, hardness, shape, and how children can move the food around in their mouths.\*\*

\_ / 8

**4**

**Meets all Minimal Practices and Effective Practices, and at least half of the practices from Ideal Practice.**

**5 Ideal Practice**

- Children have non-meal opportunities to experiment with serving and eating equipment (e.g., sand and water tables include pitcher and cups for pouring, or art centers include plastic knives for cutting clay or play-dough).\*\*\*\*
- Adults give specific directions to individual children to reinforce motor skills.
- Adults model skills for eating and serving, offering a physical model paired with a verbal description of what they are doing.

\_ / 3

**0 Inadequate Practice**

- Adults are unavailable to model eating and mealtime skills.
- Adults serve all foods onto children's plates.
- Children's sole utensil is either a spoon or a fork.
- Children are served only finger foods.

\* When toddlers arrive at the table very hungry, it is appropriate to serve initial small portions, with toddlers self-serving additional portions after their hunger has lessened.  
 \*\* Review menus.  
 \*\*\* This practice is effective with preschoolers. Toddlers should have flatware that is appropriate to the food prepared for them. Ask classroom staff about opportunities for toddlers to use forks, spoons, and knives.  
 \*\*\*\* Ask classroom staff.

<b>TOPIC AREA: Mealtime Motor Skills</b>						
<b>Rating</b>	0	1	2	3	4	5

## TOPIC AREA: Conversations (Listening and Speaking Skills)

This Topic Area is focused on the talk that takes place during the meal. This talk ranges from adults giving directions to children, to adults and children using give and take in their conversations. Observations in this Topic Area include examinations of how adults encourage or extend children's talk at the meal. When observing toddlers, note that "talk" may be single words and syllables, or non-verbal gestures.

**0 Inadequate Practice**

- Most of the adults' responses are brief, including comments such as, "Oh, really," or "Umhmm."
- Children are asked to be silent at meals.
- Nearly all of the adults' comments are directive and/or corrective.
- Adults discourage conversation by hurrying children's comments and responses.

**1 Minimal Practice**

- Children use verbal requests to ask for food.
- Children talk with each other and with adults.
- Adults talk with children to impart knowledge, to explain how to do something at the table, or to ask children questions.
- Adults respond to children's questions and comments with information and interest.

\_ / 4

**2**

**Meets all Minimal Practices, and at least half of the practices from Effective Practice.**

\_ / 4

**3 Effective Practice**

- Adults make certain all children have a chance to talk.
- Adults use genuine comments, rather than dismissive statements.
- Adults clarify children's thoughts and ideas.
- Adults model listening and give and take in conversation.
- Adults offer conversation starters.
- Adults move conversation along when it loses steam by offering information about a topic, or offering a new topic.
- Adults allow adequate wait time for children to complete thoughts and answer questions.

\_ / 7

**4**

**Meets all Minimal Practices and Effective Practices, and at least half of the practices from Ideal Practice.**

\_ / 7

**5 Ideal Practice**

- Adults observe, assess, and act on the variations in the flow of conversations (e.g., adding vocabulary, asking open-ended questions, filling in information).
- Adults validate children's feelings and ideas, and help children process those thoughts, feelings, or ideas.
- Adults extend children's conversations by adding descriptive and action words.

\_ / 3

**TOPIC AREA: Conversations and Language Development**

**Rating**      0   1   2   3   4   5

## Cluster Three: **Guiding Individuals and Groups at Mealtimes**

Use the **Guiding Individuals and Groups at Mealtimes** Cluster to examine strategies for successfully leading mealtimes that support individual eating skills, and to observe strategies that help build children's skills for eating in groups. Cluster Three includes three Topic Areas.

Topic Areas in the **Guiding Individuals and Groups at Mealtimes** Cluster:

**Routines and Schedules** - Routines and schedules help children feel secure and trusting. They also help adults manage the meal environment. Routine refers to the sequence and process of the mealtime. Schedule refers to the timing of meals in the daily plan and the time allowed for eating.

**Adult Practices at Mealtime** - Adults set the feeding environment for children. This section includes an examination of adults' practices at the table. This examination focuses on how adults assist children, whether or not adults eat with the children, and how adults respond to what children do.

**Community Building** - Meals are a time for building community. Community members help each other and show respect for each other. They take turns with each other and share thoughts and activities. Adults set a feeding environment that helps children develop a sense of community around mealtimes.

## TOPIC AREA: Routines and Schedules

Routines and schedules help children feel secure and trusting. They also help adults manage the meal environment. Routine refers to the sequence and process of the mealtime. Schedule refers to the timing of meals in the daily plan, and the time allowed for eating.

**0 Inadequate Practice**

- Mealtime routines support managing the setting rather than guiding children's skills.
- End time for the meal is governed by the clock, rather than by children's needs.
- Mealtime is scheduled for staff and center convenience rather than around children's needs. (i.e., adults hurry children to eat to meet a schedule).
- Mealtime rules are applied rigidly.

**1 Minimal Practice**

- Adults use established pre-meal, during meal, and post-meal routines.
- A majority of the children know and use an established sequence for mealtime activities.
- Adults sit with the children to support and maintain routines.
- Adequate time is scheduled for children to finish their meal without hurrying.
- During end of the meal transitions, an adult visually oversees children at the table until the last child is finished.

\_ / 5

**2**

**Meets all Minimal Practices, and at least half of the practices from Effective Practice.**

\_ / 5

**3 Effective Practice**

- Serving routines minimize children having to wait before beginning to eat.
- Children help maintain the meal environment by setting tables, helping to clean spills, and clearing dishes.
- Adults expect and respond to minor variations in routines, but still keep meal-times focused.
- End of meal routines offer transition activities so that a child can independently leave the table as he or she finishes the meal.
- Transition from eating to subsequent activities is routine and orderly.

\_ / 5

**4**

**Meets all Minimal Practices and Effective Practices, and at least half of the practices from Ideal Practice.**

\_ / 5

**5 Ideal Practice**

- Mealtime routines are designed to guide children's skills (e.g., taking turns, learning about new foods, and practicing spearing, spreading, serving, and pouring).
- Enough staff are available to facilitate safe, smooth post-meal transitions such as toileting and transitioning to nap or other activities.

\_ / 2

**TOPIC AREA: Routines and Schedules**  
**Rating 0 1 2 3 4 5**

## TOPIC AREA: Adult Practices at Mealtime

Adults set the feeding environment for children. This section includes an examination of adults' practices at the table. This examination focuses on how adults assist children, whether or not adults eat with the children, and how adults respond to what children do and say.

### 0 Inadequate Practice

- Adults sometimes leave the room during part of the mealtime.
- Adults offer little or no assistance to children.
- Adults over-help children to the point of interfering with their independence and learning.

### 1 Minimal Practice

- Adults are in the room, checking mealtime safety needs and attending to children's needs.
- Adults sit at the table.
- Adults ensure each child is offered all foods.

\_ / 3

### 2

**Meets all Minimal Practices, and at least half of the practices from Effective Practice.**

\_ / 7

### 3 Effective Practice

- Adults anticipate safety issues and take action as indicated.
- Adults sit at the table and eat the same food as children.
- Adults intentionally model verbal and motor skills that children are learning.
- Adults talk about food and nutrition concepts, including texture, vocabulary, and appearance.
- Adults talk to children about how food gives them energy, helps them grow, and keeps them healthy.
- Adults scan the group constantly and address individual children's needs.
- Adults support children's needs with the least intrusive assistance that fits a child's level of skill (i.e., adults use the less intrusive gestural or verbal assists before using more intrusive hand-over-hand assists).

\_ / 7

### 4

**Meets all Minimal Practices and Effective Practices, and at least half of the practices from Ideal Practice.**

\_ / 3

### 5 Ideal Practice

- Adults accept children's reactions to foods.
- Adults embrace children's mistakes as opportunities for children's learning.
- To assure that adults' attention is on children's mealtime needs, adults have a separate meal break for their actual meal, though they eat a small meal with the children.

\_ / 3

TOPIC AREA: <i>Adult Practices at Mealtime</i>						
Rating	0	1	2	3	4	5

## TOPIC AREA: Community Building

Meals are a time for building community. Community members help each other and show respect. They take turns with each other and share thoughts and activities. Adults set a feeding environment that helps children develop a sense of community around mealtimes.

**1 Minimal Practice**

- Adults call children by their names.
- Adults encourage children to call each other by their names.
- Children are seated around tables where they can see each other to communicate easily.
- Children's individual needs and interests are acknowledged by adults.
- Adults maintain group routines, but make exceptions as needed.
- Adults talk about and model strategies for cooperating in the group (i.e., sharing serving bowls, listening to each other, speaking one at a time, acknowledging shared preferences, calling each other by name, and acknowledging those who set the table).
- Adequate food is available so that children do not have to compete for food.
- Adults help children take turns in passing food.
- Adults make sure children know routines and procedures for eating and being at the table.

\_ / 9

**2**

**Meets all Minimal Practices, and at least half of the practices from Effective Practice.**

**3 Effective Practice**

- Adults use "we" and "ours" to describe shared aspects of the mealtime.
- Children serve themselves, passing around common bowls and pitchers.
- Mealtime conversations include all children.\*
- Adults facilitate turn-taking in conversations.\*
- Children are reminded to acknowledge each other's conversations.\*
- Mealtime conversations focus on sharing personal and individual aspects of children's lives.\*
- Adults take cues from child initiated topics.

\_ / 7

**4**

**Meets all Minimal Practices and Effective Practices, and at least half of the practices from Ideal Practice.**

**5 Ideal Practice**

- Opportunities are offered for children to help each other.
- Adults help focus children on shared experiences from past events.
- Adults lead discussions to help solve mealtime issues that affect all the children at the table.

\_ / 3

**0 Inadequate Practice**

- Group routines are non-existent or followed rigidly.
- Children are told to mind their own business if they show interest in others.
- Adults compare children's behaviors as a strategy to get children to eat.

\* "Conversation" means watching others, and listening, as well as speaking to others.

TOPIC AREA: <i>Community Building</i>						
Rating	0	1	2	3	4	5

# BMER Summary Recording Graph

Place a mark in the white bar that corresponds with the rating for each Topic Area.

<b>Ideal Practice</b>	5												
	4												
	<b>Effective Practice</b>	3											
		2											
	<b>Minimal Practice</b>	1											
0													
<b>Inadequate Practice</b>		Equipment	Mealtime Environment	Sanitation at the Table	The Food	Preventing Choking	Food Intake	Social & Emotional Development (Self-regulation)	Mealtime Motor Skills	Conversations (Listening & Speaking Skills)	Routines & Schedules	Adult Practices at Mealtime	Community Building

# Building Mealtime Environments and Relationships Resources

## **Guidelines for Feeding Young Children in Group Settings**

National guidelines from agencies and professional organizations were used as foundations for items for the BMER Inventory. The following is a bibliography of those guidelines.

American Academy of Pediatrics, American Public Health Association, and National Resource Center for Health & Safety in Child Care (AAP, APHA & NRCHSCC) (2002). *Caring for our children national health and safety performance standards: Guidelines for out-of-home child care* (2nd ed.). Elk Grove Village, IL: American Academy of Pediatrics.

The following chapters were used:

Chapter 3 – Health promotion & protection in child care (pp. 83-146)

Chapter 4 – Nutrition and food service (pp. 147-186)

Chapter 5 – Facilities, supplies, equipment, & transportation (pp. 187-282)

American Dietetic Association (1999). Nutrition standards for child-care programs: Position of ADA. *Journal of American Dietetic Association*, 99(8), 981-988.

Aronson, S. S. (Ed.) (2002). *Healthy young children: A manual for programs* (2002 ed.). Washington, DC: National Association for the Education of Young Children. The following chapters were used:  
Chapter 3 – Preventing Injuries (pp. 23-36)  
Chapter 5 – Promoting health with good nutrition (pp. 47-71)  
Chapter 9 – Facility design & support services for safe & healthy child care (pp.119–133)

National Association for the Education of Young Children (2004). *NAEYC final draft accreditation performance criteria*. Washington, DC: NAEYC.

United States Department of Agriculture (USDA), (2004). *Child and adult care food program: Code of federal regulations*. Retrieved April 1, 2005, from <http://www.fns.usda.gov/cnd/Care/Regs-Policy/226-2004.pdf>

United States Department of Health and Human Services (2002). *Head Start performance standards*. Retrieved April 1, 2005, from [http://www.acf.dhhs.gov/programs/hsb/pdf/1304\\_ALL.pdf](http://www.acf.dhhs.gov/programs/hsb/pdf/1304_ALL.pdf)

## **Comprehensive Resources for Feeding Young Children in Group Settings**

Berman, C., & Fromer, J. (1997). *Meals without squeals: Child care feeding guide & cookbook*. Palo Alto, CA: Bull Publishing.

Cryer, D., Ray, A. R., & Harms, T. (1996). *Nutrition activities for preschoolers*. Parsippany, NJ: Dale Seymour Publications.

## **Topic Area: Equipment**

Da Ros, D., & Duff, R. E. (1995). The benefits of family-style meals. *Dimensions of Early Childhood*, Winter, 17-20.

Fletcher, J. W., & Branen, L. J. (1994). Making mealtime a developmentally appropriate curriculum activity for preschoolers. *Day Care and Early Education*, 21(3), 4-8.

Fletcher, J., & Branen, L. (2000a). *Best Practices for Serving Foods to Groups of Children*. Retrieved June 1, 2005, from [http://www.ag.uidaho.edu/feeding/pdfs/1\\_2%20Best%20Practices.pdf](http://www.ag.uidaho.edu/feeding/pdfs/1_2%20Best%20Practices.pdf)

Fletcher, J., & Branen, L. (2000b). *Teaching Young Children to Serve Themselves in Group Settings*. Retrieved June 1, 2005, from [http://www.ag.uidaho.edu/feeding/pdfs/4\\_4%20serving%20self.pdf](http://www.ag.uidaho.edu/feeding/pdfs/4_4%20serving%20self.pdf)

Fletcher, J., Branen, L., & Kowash, A. (2000). Responsiveness at Mealtimes. *Feeding young children in group settings* (session 2). Retrieved June 1, 2005, from [http://www.ag.uidaho.edu/feeding/pdfs/2\\_2%20Responsiveness%20at%20mealtimes.pdf](http://www.ag.uidaho.edu/feeding/pdfs/2_2%20Responsiveness%20at%20mealtimes.pdf)

Mulligan Gordon, S. A. (1997). Enjoying family-style meals in child care. *Child Care Information Exchange*, 115, 40-43.

Mogharreban, C., & Nahikian-Nelms, M. (1996). Autonomy at mealtime: Building healthy food preferences and eating behaviors in young children. *Early Childhood Education Journal*, 24(1), 29-32.

Nahikian-Nelms, M. L., Syler, S., & Mogharreban, C. N. (1994). Pilot assessment of nutrition practices of university child care programs. *Journal of Nutrition Education*, 26(5), 238-240.

Satter, E. (1987). *How to get your kid to eat...but not too much* (pp. 180, 184-85). Palo Alto, CA: Bull Publishing.

## **Topic Area: Mealtime Environment**

Fletcher, J., & Branen, L. (2000a). *Best Practices for Serving Foods to Groups of Children*. Retrieved June 1, 2005, from [http://www.ag.uidaho.edu/feeding/pdfs/1\\_2%20Best%20Practices.pdf](http://www.ag.uidaho.edu/feeding/pdfs/1_2%20Best%20Practices.pdf)

Maxwell, L. E., & Evans, G. W. (2003). *Design of child care centers and effects of noise on young children*. Retrieved April 1, 2005, from <http://www.designshare.com/Research/LMaxwell/NoiseChildren.htm>

Mulligan Gordon, S. A. (1997). Enjoying family-style meals in child care. *Child Care Information Exchange*, 115, 40-43.



# Building Mealtime Environments and Relationships Resources

## **Topic Area: Sanitation at the Table**

- Fletcher, J., & Branen, L. (2000b). *Teaching Young Children to Serve Themselves in Group Settings*. Retrieved June 1, 2005, from [http://www.ag.uidaho.edu/feeding/pdfs/4\\_4%20serving%20self.pdf](http://www.ag.uidaho.edu/feeding/pdfs/4_4%20serving%20self.pdf)
- Fletcher, J., Branen, L., & Kowash, A. (2000). *Responsiveness at Mealtimes*. Retrieved June 1, 2005, from [http://www.ag.uidaho.edu/feeding/pdfs/2\\_2%20Responsiveness%20at%20mealtimes.pdf](http://www.ag.uidaho.edu/feeding/pdfs/2_2%20Responsiveness%20at%20mealtimes.pdf)
- Mulligan Gordon, S. A. (1997). Enjoying family-style meals in child care. *Child Care Information Exchange*, 115, 40-43.

## **Topic Area: The Food**

- Birch, L. L., & Marlin, D. W. (1982). I don't like it; I never tried it: Effects of exposure on two-year-old children's food preferences. *Appetite*, 3, 353-360.
- Birch, L. L., McPhee, L., Shoba, B. C., Pirok, E., & Steinberg, L. (1987). What kind of exposure reduces children's food neophobia?: Looking versus tasting. *Appetite*, 9, 171-178.
- Mogharreban, C., & Nahikian-Nelms, M. (1996). Autonomy at mealtime: Building healthy food preferences and eating behaviors in young children. *Early Childhood Education Journal*, 24(1), 29-32.
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- United States Department of Agriculture (2000). *Building blocks for fun and healthy meals: A menu planner for the child and adult care food program*. Washington, DC: USDA.

## **Topic Area: Preventing Choking**

- Byard, R. W. (1994). Unexpected death due to acute airway obstruction in daycare centers. *Pediatrics*, 94(1), 113-114.
- Byard, R. W., Gallard, V., Johnson, A., Barbour, J., Bonython-Wright, B., & Bonython-Wright, D. (1996). Safe feeding practices for infants and young children. *Journal of Paediatrics and Child Health*, 32(4), 327-329.
- Fletcher, J., & Branen, L. (2000c). *Choking Hazards*. Retrieved June 1, 2005, from [http://www.ag.uidaho.edu/feeding/pdfs/4\\_3%20choking.pdf](http://www.ag.uidaho.edu/feeding/pdfs/4_3%20choking.pdf)
- Fletcher, J., Branen, L., & Kowash, A. (2000). *Responsiveness at Mealtimes*. Retrieved June 1, 2005, from [http://www.ag.uidaho.edu/feeding/pdfs/2\\_2%20Responsiveness%20at%20mealtimes.pdf](http://www.ag.uidaho.edu/feeding/pdfs/2_2%20Responsiveness%20at%20mealtimes.pdf)

National Center for Injury Prevention and Control (2003). *Spotlight on choking episodes among children*. Retrieved April 1, 2005, from <http://www.cdc.gov/ncipc/duip/spotlite/choking.htm>

Tarrago, S. B. (2000). Prevention of choking, strangulation, and suffocation in childhood. *Wisconsin Medical Journal*, 99(9), 43-46.

## **Topic Areas: Food Intake**

- Birch, L. L. (1998). Development of food acceptance patterns in the first years of life. *Proceedings of the Nutrition Society*, 57, 617-624.
- Birch, L. L., & Fisher, J. A. (1995). Appetite and eating behavior in children. *Pediatric Nutrition*, 42(4), 931-953.
- Birch, L. L., & Fisher, J. O. (1997). Food intake regulation in children: Fat and sugar substitutes and intake. *Annals of New York Academy of Sciences*, 819 (May 23, 1997), 194-220.
- Birch, L. L., & Fisher, J. O. (1998). Development of eating behaviors among children and adolescents (The causes and health consequences of obesity in children and adolescents). *Pediatrics*, 101(3), 539-549.
- Birch, L. L., Johnson, S. L., Andresen, G., Peters, J. C., & Schulte, M. C. (1991). The variability of young children's energy intake. *New England Journal of Medicine*, 324(4), 232-235.
- Birch, L. L., Johnson, S. L., & Fisher, J. A. (1995). Children's eating: The development of food-acceptance patterns. *Young Children*, 50(2), 71-78.
- Birch, L. L., Johnson, S. L., Jones, M. B., & Peters, J. C. (1993). Effects of a nonenergy fat substitute on children's energy and macronutrient intake. *American Journal of Clinical Nutrition*, 58(3), 326-333.
- Branen, L., & Fletcher, J. (1994). Effects of restrictive and self-selected feeding on preschool children's food intake and waste at snacktime. *Journal of Nutrition Education*, 26(6), 273-276.
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# Building Mealtime Environments and Relationships Resources

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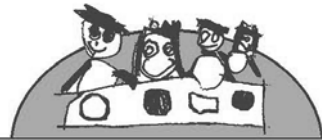
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