



**Trainer Edition**

Arizona WIC Training

# **Infant Nutrition Guidebook**



ARIZONA DEPARTMENT  
OF HEALTH SERVICES

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## What Will You Learn?

While completing the Infant Nutrition LMS course and this associated guidebook, you'll learn the basics of infant nutrition, family meals, physical activity, and dental health.

## Items Needed for This Course

- Pen or pencil
- Access to the Infant Nutrition LMS course

## Recommended Time

- Approximate time it takes to complete the Infant Nutrition LMS course: 1-2 hours
- Approximate time it takes to complete the face-to-face activities and discussion with your trainer: 1-2 hours

## Things to Remember

- This guidebook is yours to keep.
- You are encouraged to take notes, highlight, and write in the guidebook.
- As your trainer chooses, you may work in a group or as an individual.
- You are encouraged to ask your trainer(s) for help, ask questions about the information in the course, or ask any questions about additional topics related to Infant Nutrition training.

**TRAINER NOTE: As the trainer, you are assessing trainees for their understanding of Infant Nutrition competencies for each module. The guidebook training activities are intended to help you assess both trainees' ability to apply basic knowledge and their critical thinking skills.**

**Participation by the trainee in the face-to-face activities and discussions is required in order for you to thoroughly assess their skills and level of competence.**

## Infant Nutrition Course Instructions

- ☐ Log onto <https://az.train.org/DesktopShell.aspx>
- ☐ Open and complete all modules of the Infant Nutrition LMS course and the corresponding Infant Nutrition Activities in this guidebook.
- ☐ At your trainer's discretion, complete the Infant Nutrition LMS course and guidebook, either individually, with other trainees, or with your trainer.
- ☐ Complete the Infant Nutrition LMS Post-Test.
- ☐ Meet with your trainer at their discretion to discuss each module of the Infant Nutrition LMS course and the associated activities in this guidebook, either after each module or after all modules have been completed.

### TRAINER NOTE:

#### Trainer Steps:

- ☐ At your discretion, trainees may work in groups or as individuals.
- ☐ At your discretion, you may review answers with trainees periodically as they complete activities of the Infant Nutrition Guidebook, or after they have fully completed it. Please answer all question the trainees may have and clarify and incorrect answers.
- ☐ "Possible responses" provided throughout the guidebook are suggested responses and are often not the only answers.
- ☐ If training more than one person at a time, be prepared for trainees to finish the coursework at different times. In order to have trainees review the face-to-face portions together, prepare a list of things that trainees who finish first can do during downtime (e.g., ask you questions for more clarification, check email, clinic observation, etc.).

## Module 1: Young Infant Nutrition (Birth to 6 Months)

**TRAINER NOTE:** It is recommended for you to review the competencies below with trainees.

### MODULE 1 COMPETENCIES:

1. Trainees will be able describe the Division of Responsibility for young infants to caregivers.
2. Trainees will be able to list infant hunger and fullness cues.
3. Trainees will be able to describe the potential problems of adding cereal to bottles to caregivers.
4. Trainees will identify appropriate recommendations for storing breastmilk and formula.

## Module 1: Questions

**TRAINER NOTE:** Allow trainees time to read through the following activity and answer all questions. Discuss the questions together to check for understanding and consider other appropriate responses.

Directions:

Answer the following questions.

1. How would you explain the Division of Responsibility for young infants to caregivers?

**Correct response:**

**“The Division of Responsibility for young infants is that the caregiver is responsible for what food(s) is/are offered. The infant is responsible for everything else (when, where, how fast, and how much to eat).”**

**“Right now, you only need to decide what to feed them, either breastmilk or formula, and let your infant decide everything else. Since your infant can’t verbally communicate with you, it’s important that you watch for their hunger/fullness cues to feed them when they show you that they’re hungry, and stop feeding them when they’re full, regardless of where you are.”**

**“Once they get a little older, it will become your responsibility to decide what times to feed them, as well as where you feed them.”**

**TRAINER NOTE: At your discretion, refer trainees to Module 1, Slide 4 of the Infant Nutrition LMS course for the correct answer to the above question.**

2. Complete the table below by listing hunger/fullness cues that infants use to show that they need to be fed or are done eating.

Hunger Cues	Fullness Cues
1)	1)
2)	2)
3)	3)
4)	4)

**Correct responses:**

Hunger Cues	Fullness Cues
1) Tight fists	1) Pushing away
2) Hands to the mouth	2) Turning away
3) Rooting	3) Spitting the nipple out
4) Mouthing	4) Falling asleep

**TRAINER NOTE: At your discretion, refer trainees to Module 1, Slide 7 of the Infant Nutrition LMS course for the correct answers to the above question.**

3. How would you explain to caregivers of infants less than 4 months old the potential problems of adding cereal to bottles?

**Possible responses:**

**There is an increased risk of choking and overfeeding for infants who have cereal added to their bottles. Also, there is an increased risk of food allergies for children under 4 months of age who have cereal added to their bottles.**

**TRAINER NOTE: At your discretion, refer trainees to Module 1, Slide 8 of the Infant Nutrition LMS course for the correct answer(s) to the above question.**

4. Complete the tables below to show how long formula and breastmilk can be safely stored before being discarded.

Table 1: Freshly Pumped or Prepared Breastmilk or Formula

	<b>Room Temperature</b> (freshly pumped or prepared)	<b>Refrigerated</b> (freshly pumped or prepared)	<b>Frozen</b>
<b>Breastmilk</b>			
<b>Powdered Formula</b>			N/A
<b>Concentrate Formula</b>			N/A
<b>Ready-to-Feed (RTF) Formula</b>			N/A

Table 2: Thawed Breastmilk or Formula (or Left Over from a Feeding)

	<b>Room Temperature</b> (thawed)	<b>Refrigerated</b> (thawed after frozen storage)	<b>After Feeding has Begun</b> (baby did not finish the bottle)
<b>Breastmilk</b>			
<b>Powdered Formula</b>	N/A	N/A	
<b>Concentrate Formula</b>	N/A	N/A	
<b>Ready-to-Feed (RTF) Formula</b>	N/A	N/A	

**Correct responses:**

Table 1: Freshly Pumped or Prepared Breastmilk or Formula

	<b>Room Temperature</b> (freshly pumped or prepared)	<b>Refrigerated</b> (freshly pumped or prepared)	<b>Frozen</b>
<b>Breastmilk</b>	4 hours	4 days	12 months/1 year
<b>Powdered Formula</b>	1 hour	1 day/24 hours	N/A
<b>Concentrate Formula</b>	1 hour	2 days/48 hours	N/A
<b>Ready-to-Feed (RTF) Formula</b>	1 hour	2 days/48 hours	N/A

Table 2: Thawed Breastmilk or Formula (or Left Over from a Feeding)

	<b>Room Temperature</b> (thawed)	<b>Refrigerated</b> (thawed after frozen storage)	<b>After Feeding has Begun</b> (baby did not finish the bottle)
<b>Breastmilk</b>	2 hours	1 day/24 hours	2 hours
<b>Powdered Formula</b>	N/A	N/A	1 hour
<b>Concentrate Formula</b>	N/A	N/A	1 hour
<b>Ready-to-Feed (RTF) Formula</b>	N/A	N/A	1 hour

**TRAINER NOTE:** At your discretion, refer trainees to Module 1, Slides 9-10 of the Infant Nutrition LMS course for the correct answers to the above question.



## Module 2: Older Infant to Young Toddler Nutrition (6 to 18 Months)

**TRAINER NOTE:** It is recommended for you to review the competencies below with trainees.

### MODULE 2 COMPETENCIES:

1. Trainees will be able describe the Division of Responsibility for older infants and young toddlers.
2. Trainees will identify appropriate ages to include infants in family meals.
3. Trainees will be able to explain the importance of family meals.
4. Trainees will be able to offer recommendations to caregivers about introducing infants to family meals.
5. Trainees will describe signs of developmental readiness associated with the four stages of solid food progression during infancy.
6. Trainees will be able to offer recommendations to help caregivers recognize choking hazards for infants.
7. Trainees will correctly identify the eight most common allergenic foods.
8. Trainees will be able to offer evidence-based recommendations about introducing allergenic foods to older infants and young toddlers.
9. Trainees will correctly identify the symptoms of food allergies.

## Module 2: Questions

**TRAINER NOTE:** Allow trainees time to read through the following activity and answer all questions. Discuss the questions together to check for understanding and consider other appropriate responses.

Directions:

Answer the following questions.

1. What is the Division of Responsibility for older infants and young toddlers?

**Correct response:**

The caregiver is responsible for what foods are offered, and is becoming responsible for when and where foods are offered. The child is responsible for how much and whether to eat.

**TRAINER NOTE:** At your discretion, refer trainees to Module 2, Slide 2 of the Infant Nutrition LMS course for the correct answer to the above question.

2. When would caregivers ideally begin to bring older infants and young toddlers to eat alongside other family members during meals and snacks?

**Correct response:**

**As soon as they begin to eat solid foods, around 6 months of age.**

**TRAINER NOTE: At your discretion, refer trainees to Module 2, Slide 2 of the Infant Nutrition LMS course for the correct answer to the above question.**

3. Describe why family meals are important.

**Possible responses:**

- Family meals can build the foundation for a healthy lifelong relationship with food.
- Family meals provide excellent opportunities for families to learn, grow, and focus on communicating with each other.
- During family meals, caregivers can relay important information about family values to their children and help give family members a sense of unity.
- Research has shown that children who consistently participate in family meals are less likely to do drugs and skip school, are more likely to have an improved sense of social wellbeing, and get better grades in school.
- Families that eat together are also more likely to eat healthier foods.

**TRAINER NOTE: At your discretion, refer trainees to Module 2, Slide 5 of the Infant Nutrition LMS course for the correct answer(s) to the above question.**

4. What advice would you offer to a caregiver who has never offered family meals and snacks, but is interested in starting?

**Possible responses:**

- Family meals don't need to be complicated. Just getting the family together during regular meals and snacks is the first and most important step.
- Emphasize that it's very important for the caregiver to also eat during the meals and snacks, instead of providing the meal and leaving to do other things.
- Let them know that they don't need to start making all meals from scratch. Instead, meals can even be made up of ready-to-eat foods (e.g., bread, canned foods, and fresh fruits and vegetables), food from restaurants, or even microwaveable meals.
- Caregivers don't even need to start having all of their meals together as a family. If that seems like too much effort, they can create their own goals for how often they would like to have family meals.
- Caregivers don't need to offer every food group at every meal, but well-balanced meals often include several food groups.

**TRAINER NOTE:** At your discretion, refer trainees to Module 2, Slides 6-7 of the Infant Nutrition LMS course for the correct answer(s) to the above question.

5. Match the steps of solid food progression to the corresponding developmental skills.

Four Steps of Solid Foods	Developmental Skills
____ Step 1 Pureed Foods	<p>A. Skills:</p> <ul style="list-style-type: none"> <li>● Close his lips around the rim of a cup</li> <li>● Pick up food and put into his mouth</li> <li>● Take bites of food</li> <li>● Chew foods, but occasionally gags</li> </ul>
____ Step 2 Thicker, Lumpy Food	<p>B. Skills:</p> <ul style="list-style-type: none"> <li>● Sit up alone or with support</li> <li>● Open her mouth for the spoon</li> <li>● Close her mouth over the spoon</li> <li>● Keep most of the food in her mouth</li> <li>● Swallow</li> </ul>
____ Step 3 Finger Foods	<p>C. Skills:</p> <ul style="list-style-type: none"> <li>● Use his fingers (not entire hand) to pick up food</li> <li>● Consistently chew and swallow foods without gagging</li> </ul>
____ Step 4 Easy-to-chew Grown-up Foods	<p>D. Skills:</p> <ul style="list-style-type: none"> <li>● Pick up food, but cannot let it go</li> <li>● Keep food in mouth instead of swallowing right away</li> <li>● Move food to the side of her mouth</li> <li>● Munch on food</li> </ul>

**Correct responses:**

<b>Four Steps of Solid Foods</b>	<b>Developmental Skills</b>
<b>__B.__</b> Step 1 Pureed Foods	<p>A. Skills:</p> <ul style="list-style-type: none"> <li>● Close his lips around the rim of a cup</li> <li>● Pick up food and put into his mouth</li> <li>● Take bites of food</li> <li>● Chew foods, but occasionally gags</li> </ul>
<b>__D.__</b> Step 2 Thicker, Lumpy Food	<p>B. Skills:</p> <ul style="list-style-type: none"> <li>● Sit up alone or with support</li> <li>● Open her mouth for the spoon</li> <li>● Close her mouth over the spoon</li> <li>● Keep most of the food in her mouth</li> <li>● Swallow</li> </ul>
<b>__A.__</b> Step 3 Finger Foods	<p>C. Skills:</p> <ul style="list-style-type: none"> <li>● Use his fingers (not entire hand) to pick up food</li> <li>● Consistently chew and swallow foods without gagging</li> </ul>
<b>__C.__</b> Step 4 Easy-to-chew Grown-up Foods	<p>D. Skills:</p> <ul style="list-style-type: none"> <li>● Pick up food, but cannot let it go</li> <li>● Keep food in mouth instead of swallowing right away</li> <li>● Move food to the side of her mouth</li> <li>● Munch on food</li> </ul>

**TRAINER NOTE:** At your discretion, refer trainees to Module 2, Slide 11 of the Infant Nutrition LMS course for the correct answers to the above question.

6. What advice would you offer to WIC participants to help them recognize choking hazards?

**Possible responses:**

- Even after the step 4 of solid food progression, children up to 4 years of age still need to have their food modified to make it easier to chew and swallow.
- Round foods like grapes, hot dogs, and carrots should be cut into short strips.
- Peanut butter should be spread thinly, as large chunks can cause choking.
- Pits and seeds from fruits such as cherries, peaches, and apricots should be removed.
- Nuts, hard candy, jelly beans, gum drops, and popcorn should not be offered until 4 years of age or older.
- Caregivers should never offer snacks to children who are riding in cars, since the caregiver cannot assist them in they were to choke.
- Caregivers should never offer snacks to children who are being physically active, due to the increased risk of choking during physical activity.

**TRAINER NOTE:** At your discretion, refer trainees to Module 2, Slide 16 of the Infant Nutrition LMS course for the correct answer(s) to the above question.

7. List the 8 most common food allergies.

1.	5.
2.	6.
3.	7.
4.	8.

**Correct responses:**

1. Cow's Milk	5. Soy
2. Eggs	6. Wheat
3. Peanuts	7. Fish
4. Tree Nuts	8. Shellfish

**TRAINER NOTE:** At your discretion, refer trainees to Module 2, Slide 22 of the Infant Nutrition LMS course for the correct answer(s) to the above question.

8. What advice would you offer to a caregiver regarding the introduction of common allergenic foods to a child without any history of eczema or food allergies?

**Possible response:**

Caregivers of infants without a family history of eczema or food allergies should make sure that the infant is developmentally ready for each type of common allergenic food, starting as early as 6 months.

**TRAINER NOTE:** At your discretion, refer trainees to Module 2, Slide 23 of the Infant Nutrition LMS course for the correct answer(s) to the above question.

9. Briefly explain how a caregiver can recognize symptoms of a food allergy.

**Possible responses:**

- **Some of the most common symptoms of a food allergy are:**
  - **Skin problems such as:**
    - Hives, red spots that look like mosquito bites
    - Itchy skin rashes like eczema
    - Swelling
  - **Breathing problems such as:**
    - Sneezing
    - Wheezing
    - Throat tightness
  - **Stomach symptoms such as:**
    - Nausea
    - Vomiting
    - Diarrhea
  - **Circulation symptoms such as**
    - Pale skin
    - Lightheadedness or loss of consciousness

**TRAINER NOTE:** At your discretion, refer trainees to Module 2, Slide 24 of the Infant Nutrition LMS course for the correct answer(s) to the above question.

## Module 3: Healthy Eating Recommendations

**TRAINER NOTE:** It is recommended for you to review the competencies below with trainees.

### MODULE 3 COMPETENCIES:

1. Trainees will be able to explain the Division of Responsibility in physical activity for infants.
2. Trainees will be able to share recommendations about appropriate physical activities for infants.
3. Trainees will offer appropriate recommendations to caregivers about maintaining good dental health both during and after the eruption of teeth, and how to prevent baby bottle tooth decay in older infants and young toddlers.

## Module 3: Questions

**TRAINER NOTE:** Allow trainees time to read through the following activity and answer all questions. Discuss the questions together to check for understanding and consider other appropriate responses.

Directions:

Answer the following questions.

1. How would you describe the Division of Responsibility in physical activity for Infants to caregivers?

**Correct response:**

The Division of Responsibility in physical activity for infants is that the caregiver is responsible for providing safe opportunities for movement. The infant is responsible for moving. You can also help your infant learn to move their body by providing developmentally-appropriate environments for them to practice.

**TRAINER NOTE:** At your discretion, refer trainees to Module 3, Slide 2 of the Infant Nutrition LMS course for the correct answer to the above question.



2. Match the age range with the recommended way that caregivers can encourage physical activity.

Age Range	Recommended Way for Caregiver to Encourage Physical Activity
___ 11 to 15 Months	A. Caregivers hold infants up and encourage them to reach for things.
___ Around 6 Months	B. Caregivers put infants on their stomachs to practice moving.
___ By 4 Months of Age	C. Caregivers can encourage crawling and pulling to stand by placing objects just out of the infant's reach.
___ Newborns	D. Caregivers provide safe places for infants to practice walking.
___ 7 to 10 Months	E. Caregivers make sure infants have safe places to practice sitting up on their own.

**Correct responses:**

Age Range	Recommended Way for Caregiver to Encourage Physical Activity
__D__ 11 to 15 Months	A. Caregivers hold infants up and encourage them to reach for things.
__E__ Around 6 Months	B. Caregivers put infants on their stomachs to practice moving.
__A__ By 4 Months of Age	C. Caregivers can encourage crawling and pulling to stand by placing objects just out of the infant's reach.
__B__ Newborns	D. Caregivers provide safe places for infants to practice walking.
__C__ 7 to 10 Months	E. Caregivers make sure infants have safe places to practice sitting up on their own.

**TRAINER NOTE: At your discretion, refer trainees to Module 3, Slide 2 of the Infant Nutrition LMS course for the correct answer(s) to the above question.**

3. How should infants' dental health be maintained before their first teeth erupt?

**Possible response:**

**Infants' mouths and gums should be wiped with a clean washcloth once per day.**

**TRAINER NOTE: At your discretion, refer trainees to Module 3, Slide 3 of the Infant Nutrition LMS course for the correct answer to the above question.**

4. How should infants' dental health be maintained after their first teeth erupt?

**Possible response:**

**Infants' teeth and gums should be brushed with a soft toothbrush twice per day with a drop of fluoridated toothpaste that is the size of a grain of rice.**

**TRAINER NOTE: At your discretion, refer trainees to Module 3, Slide 3 of the Infant Nutrition LMS course for the correct answer to the above question.**

5. How can baby bottle tooth decay be prevented?

**Possible response:**

**Baby bottle tooth decay can be prevented by:**

- Weaning children from bottles by 14 months of age
- Not allowing children to go to sleep holding bottles of milk or formula
- Not offering soda or juice in bottles

**TRAINER NOTE: At your discretion, refer trainees to Module 3, Slide 4 of the Infant Nutrition LMS course for the correct answer(s) to the above question.**