



INFANT FORMULA: MIXING IT UP & KEEPING IT SAFE!

A NUTRITION IN-SERVICE FOR STAFF

“Sometimes the strength of motherhood is
greater than natural laws.”

~ Barbara Kingsolver



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A lesson on the safe handling of infant formula: sharing this health information with WIC clients who use formula.

- Who:** Participants: WIC Staff, range of 2-15 participants with a varying degree of maternal, infant and child nutrition knowledge and WIC experience.
Leader: WIC RD/Nutritionist
- Why:** Infant formula must be properly prepared and diluted in a sanitary way to avoid infants becoming sick or underfed. WIC staff must be knowledgeable about formula preparation and safety to give guidance about these topics.
- When:** A monthly in-service that is designed to be 30 to 60 minutes - depending on the discussion and the number of staff attending.
- Where:** The session was designed for a WIC classroom, meeting room or large office depending on the size of the group.
- What:** By the end of this session staff will have:
- Reviewed the guidelines for sanitation of water and bottles.
 - Identified what problems may affect the proper mixing and dilution of infant formula.
 - Distinguished between True and False statements regarding safe handling and storage of infant formula.
 - Named what Washington State WIC Nutrition Risk criteria pertain to topic.
 - Practiced communicating with clients about safe handling and storage of infant formula.
- Materials Needed:**
- (Part 2) Cans of Similac formula or labels (powder / concentrate / and RTF) **and/or** "Preparation Checklist" from the [Infant Nutrition and Feeding: A Guide for Use in the WIC and CSF Programs](#) : Chapter 4, pages 96-98.
 - (Part 2 – optional activity) Cans of formula to open, water and infant feeding bottles
 - (Part 2 – optional activity) Cans or labels of current WIC

Therapeutic formulas.

Copies of:

- Infant Formula: Mixing it up and Keeping it Safe! In-service *Participant Copy*
- Infant Formula: Mixing it up and Keeping it Safe! In-service *Feedback Form*
- (Optional Activity) *Participant Information*

Background Please review before leading group:

**Reading for
Leaders:**

- Washington State WIC Manual, Volume 1, Chapter 14 - Nutrition Risk Criteria “Inappropriate Formula Dilution”
- Washington State WIC Manual, Volume 1, Chapter 14 - Nutrition Risk Criteria “Unsafe Handling/Storage of Breastmilk/Formula”

For Further review and consult:

- [Infant Nutrition and Feeding: A Guide for Use in the WIC and CSF Programs](http://www.nal.usda.gov/wicworks/index.html): Chapter 4, pages 96-98.
www.nal.usda.gov/wicworks/index.html.
- Baby bottle buying advice:
<http://www.consumerreports.org/cro/babies-kids/baby-toddler/baby-bottles/baby-bottle-buying-advice/index.htm>
- FDA’s recommendations on BPA (Bisphenol-A),
www.fda.gov/oc/opacom/hottopics/bpa.html

How:

Schedule in-service.

Review background information.

Review in-service *Leader Copy* (*italicized print indicates leader speaking*).

Prepare materials needed.

Have fun!

Introduction / Warm-Up**2 minutes**

Welcome! I will be the leader for this month's nutrition training. I encourage all of you to participate. Together we can explore our topic and discover strategies to support our WIC clients.

By the end of this session you will have:

- *Reviewed the guidelines for sanitation of water and bottles.*
- *Identified what problems may affect the proper mixing and dilution of infant formula.*
- *Distinguished between True and False statements regarding safe handling and storage of infant formula.*
- *Named which Washington State WIC Nutrition Risk criteria pertain to this topic.*
- *Practiced communicating with clients about safe handling and storage of infant formula.*

Part 1**8 minutes****Guidelines for Sanitation**

Questions often arise about the sterilization of bottles and water.

Listen as I read the following information from the USDA Infant Nutrition and Feeding: A Guide for use in the WIC and CSF Programs (CSF - Commodity Supplemental Foods).

Infants 3 months of age and younger are more likely to contract illnesses from micro-organisms in bottles and nipples that are improperly cleaned, cleaned in contaminated water, or filled with contaminated water. Therefore, for infants less than 3 months old, glass or hard plastic bottles and bottle parts should first be thoroughly cleaned using soap, hot water, bottle/nipple brushes, and be sterilized in boiling water for 5 minutes or washed in a properly functioning dishwasher. If disposable plastic bottle liners are used, the bags should be discarded after one use and the nipples, rings, and caps should be sterilized in boiling water or washed in a dishwasher until the infant is at least 3 months old.

As a precaution, it is generally recommended to boil the water used for infant formula preparation during the first 3 months of life. Bottled distilled water (such as Nursery® Water) may be used in place of boiled water. Caregivers should consult their health care providers regarding whether the water used for preparing infant formula or for feeding should be boiled for the infant older than 3 months.

After 3 months, unless otherwise indicated by a health care provider, bottles should be thoroughly washed using soap and hot water and bottle and nipple brushes or cleaned in a dishwasher.

What questions do you have about sterilization of bottles and water?

Note: According to the manufacturer of Nursery® Water it is purified water with added fluoride (.7 ppm or less) processed by steam distillation.

Part 2**10 minutes****Mixing and Storing**

Set out cans of formula and/or formula labels and/or copies of “Preparation Checklists” from Infant feeding guide.

Some of us are so familiar with mixing formula, either from years of WIC experience or personal experience, that we may forget how foreign mixing formula can be to a new caregiver, or a caregiver with a language barrier or limited reading skills.

I have placed several cans of formula / formula labels / mixing instructions on the table.

Working in pairs, review the labels and/or the mixing instructions. While reviewing, ponder the following questions:

- *What information is confusing or not clear?*
- *What may be difficult for someone with a language barrier, or limited reading skills?*

Allow time for review and discussion in pairs. Call group back.

Who would like to share their observations?

Optional activity: Have participants mix powder formula.

Optional activity: Include WIC approved Therapeutic Formulas from non-contract companies. Have participants note differences in mixing instructions from one brand to another.

Note: If four or less participants, have participants work individually.

Note: Allow additional time if including optional activity.

Part 3**5 minutes****True or False?**

Follow along as I read the following statements about the safe storage and handling of formula. Respond to the following statements about safe storage and handling of formula using “thumbs up” for true statements and “thumbs down” for false statements.

- *Do not use prepared formula that has been held at room temperature longer than 2 hours or longer than recommended by the manufacturer. (True)*
- *You can use formula that has been stored in the refrigerator for 72 hours or longer. (False – Do not use formula that has been held in refrigerator longer than 48 hours)*
- *Do not use formula that remains in a bottle one hour after the start of feeding. (True)*

- *Discard any infant formula remaining after a feeding. The mixture of infant formula with saliva provides an ideal breeding ground for disease-causing micro-organisms. (True)*
- *Opened cans of concentrated or ready-to-feed infant formula should be covered, refrigerated, and used within 48 hours. (True)*
- *Freezing infant formula is recommended. (False – Freezing infant formula is not recommended)*
- *Powdered infant formula should be tightly covered and stored in a cool, dry place and used within a month after opening. (True)*

Which instructions do you believe clients have the most difficulty following?

Part 4	5 minutes
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WIC Nutrition Risk Criteria

What Washington State WIC nutrition risk criteria could apply to this topic? Circle from the list below.

- *Early introduction to solids*
- *Inappropriate Formula Dilution*
- *Unsafe Handling/Storage of Breastmilk/Formula*
- *Feeding Sugar-containing Drinks*

Correct response: Inappropriate Formula Dilution and Unsafe Handling/Storage of Breastmilk/Formula

Part 5	10 minutes
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Explore, Offer, Explore

Pair up with a person sitting next to you.

Brainstorm ideas on communicating appropriate storage and handling of formula with the following scenario.

Use Explore, Offer, Explore.

Explore...Explore what the client knows, or would like to know

Offer...Offer information in a neutral, nonjudgmental manner

Explore...Explore about the client's thought, feelings, and reactions

Together review the following scenario. We will hear some of your ideas.

You have a WIC visit today with Mary and her four month old baby, Jennifer, to

check Jennifer's weight and provide a 2nd Nutrition Education contact. While weighing and measuring Jennifer, you notice that the diaper bag contains three 8oz bottles of prepared formula.

Call group back after approximately 6 minutes. Hear ideas from groups.

Closing	1 minute
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Thanks for participating today. We heard some great discussion and ideas that will help us to better serve our WIC clients.

Please fill out a feed-back form – your input is greatly appreciated.

Collect Feedback Forms.

Make any notes you have as a leader.

Review participants' Feedback Forms.

Document this training.

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Optional Activity (if time allows)**5 minutes**

There has been some information in the media about the safety of plastic bottles. Listen as we read from the review box below. Underline what strikes you as new or interesting. We will hear what you underlined and why.

Bisphenol-A (BPA) is a component of polycarbonate plastic (identified by the #7 recycling triangle). The chemical has come under scrutiny, as some studies show that it mimics the hormone estrogen and other studies have raised questions about its effects on cancer risk, fertility and behavioral problems.

However, most studies have concluded that the chemical levels found in food and beverages stored in polycarbonate containers have no effect on human health. The highest concentrations of BPA were found to leach from bottles that were extremely scratched, worn, or the liquid had been boiled for 20 to 30 minutes in the bottle.

To minimize babies exposure to BPA, you can make the following recommendations:

- Discard all bottles that are worn or have many scratches.
- Use glass bottles instead of plastic.
- Plastic bottles made from polypropylene and polyethylene that do not contain BPA are identified by the recycling symbols: #1, #2, #4 and #5.

The FDA has made the following statement regarding Bisphenol A: "At this time, FDA is not recommending that anyone discontinue using products that contain BPA while we continue our risk assessment process. However, concerned consumers should know that several alternatives to polycarbonate baby bottles exist, including glass baby bottles."

Who would like to share what they underlined?

Optional Activity (small number of participants)**20 minutes**

For clinics with a small staff you may wish to individually complete the online lesson, Lesson 5 - Feeding Infants - Nourishing Attitudes and Techniques found at: http://www.nal.usda.gov/wicworks/WIC_Learning_Online/index.html. (Note to first time users, you will be required to obtain a password which may take 1-2 business days.) Schedule a time when the lesson will be completed by individuals and then get together to share ideas and thoughts about the lesson.

A lesson on the safe handling of infant formula: sharing this health information with WIC clients who use formula.

Learning Objectives

By the end of this session you will have:

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- Identified what problems may affect the proper mixing and dilution of infant formula.
- Distinguished between True and False statements regarding safe handling and storage of infant formula.
- Named what Washington State WIC Nutrition Risk criteria pertain to this topic.
- Practiced communicating with clients about safe handling and storage of infant formula.

Part 1

Guidelines for Sanitation

Listen as we read the following information from the USDA Infant Nutrition and Feeding: A Guide for use in the WIC and CSF Programs.

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What questions do you have about sterilization of bottles and water?

Part 2

Mixing and Storing

Working in pairs, review the labels and/or the mixing instructions. While reviewing, ponder the following questions:

What information is confusing or not clear?

What may be difficult for someone with a language barrier, or limited reading skills?

We will hear some of your responses.

Part 3

True or False?

Using “thumbs up” for true and “thumbs down” for false, respond to the following statements about safe storage and handling of formula:

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Which instructions do you believe clients have the most difficulty following?

Part 4**WIC Nutrition Risk Criteria**

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Part 5**Explore, Offer, Explore**

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Ask...Offer information in a neutral, nonjudgmental manner

Explore...Explore about the client's thought, feelings, and reactions

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Closing

Thank you for participating today.

Please fill out a Feedback Form – your input is greatly appreciated.

To learn more about infant feeding, please visit:

The USDA Infant Nutrition and Feeding Guide can be found on the [WIC Works Resource System](#).

Optional Activity

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FDA's recommendations on BPA can be found at <http://www.fda.gov/oc/opacom/hottopics/bpa.html>

