



Formula Mixing Recipes
and Supplementing
Calories in Breast Milk
for the Preterm Infant

Women & Infants



 *Care New England*

This book has been created in an effort to reduce mixing errors and secondary medical complications post NICU discharge. Reducing mixing errors such as being too diluted or too concentrated can reduce complications with FTT, constipation and reflux symptoms. This book provides recipes needed to mix high-calorie formulas and add calories to breast milk for pre-term infants. When using these recipes, we recommend you distinguish between chronological age and corrected age. For the majority of preterm infants, we recommend using corrected age until 12 months past the due date to support optimal catch-up growth.

Chronological age refers to the numbers of days, weeks, months, and years today is from the infant’s actual date of delivery or birthday. Chronological age is “actual age.”

Corrected age refers to the infant’s prematurity. It is calculated by starting with the chronological age and then subtracting the number of weeks of prematurity from that age. Corrected age is also defined as the age from the mother’s due date.

The formula is:

Chronological age (actual age) – weeks or months of prematurity = corrected age



Step by step instructions for mixing formula are available online at:

www.youtube.com/watch?v=cRTxlQduKg

Fortified Breast Milk Preparation Using Powder Formula

Preparation

1. Wash hands well before preparing formula. Wash all bottles, nipples and containers used to prepare formula. Do not store other liquids in the containers used for formula.
2. If breast milk is frozen, thaw in warm water.
3. Use thawed breast milk within **24 hours**.
4. Expressed breast milk that will not be used within **96 hours (four days)** should be frozen.

Storage

1. Store unprepared milk in refrigerator for no longer than **24 hours**.
2. Before feeding, prepared milk can be left out at room temperature for up to **two hours**.
3. After feeding, throw away any milk left in the bottle if your baby does not drink it within **one hour**.
4. Never heat milk in the microwave. Place the bottle in a pan of warm water for no longer than **15 minutes** or run under warm tap water.

To speak with a neonatal nutritionist, call (401) 274-1100, ext. 44549 or 44550.

Recipes to increase calories in breast milk using formula powder

1. Use an unpacked, level teaspoon or scoop when measuring formula. Any powder formula may be mixed with breast milk.

Calories/ounce	Powder	Breast Milk
22	½ teaspoon	3 ounces (90 ml)
22	1 teaspoon	6 ounces (180 ml)
24	½ teaspoon	1½ ounces (45 ml)
24	1 teaspoon	3 ounces (90 ml)
27	1 teaspoon	2 ounces (60 ml)
27	1 scoop (from can)	7 ounces (210 ml)
30	1½ teaspoon	2 ounces (60 ml)
30	1 scoop (from can)	5 ounces (150 ml)



1. Wash everything in a dishwasher or in hot soapy water. This includes your hands, spoons, measuring cups, scoops, the bottles, nipples and caps, or anything that the formula comes in contact with.



2. Rinse in hot water and allow to air dry on a clean towel or bottle rack.



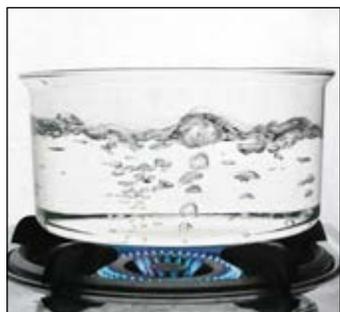
3. Clean counter or table where you make the formula with soapy water or antibacterial spray. Rinse with clean water and dry with a clean towel.



4. Have everything you need to use ready.



5. Wash hands with soap and water just before mixing formula and make sure hands are dry.



6. To sterilize water used to make formula, boil for two minutes and let it cool no more than 30 minutes before mixing with powder.



7. Use scoop from the can to measure powder:

2 level scoops of formula powder should be mixed with 4½ ounces of water.

8. Write the date you opened the can on the outside of the can and throw away whatever you do not use after one month.

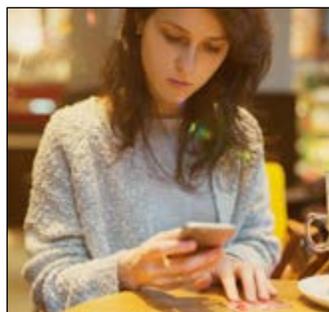


9. Refrigerate formula after it is prepared.

10. If mixing with hot water, be sure to cool formula before feeding baby. To heat refrigerated formula, put the bottle in a container of warm water. **DO NOT MICROWAVE!**



11. If you will be traveling, use ice packs and a cooler/insulated bag to keep the formula cold.



If your baby is having less than six wet diapers daily, vomiting, has multiple loose/watery stools, or is feeding poorly, contact your pediatrician or the Warm Line at 1-800-711-7011.



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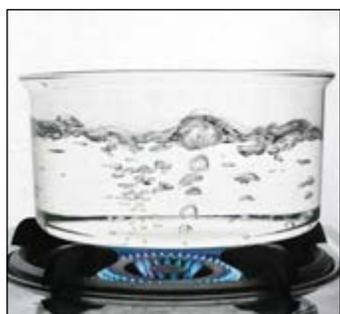
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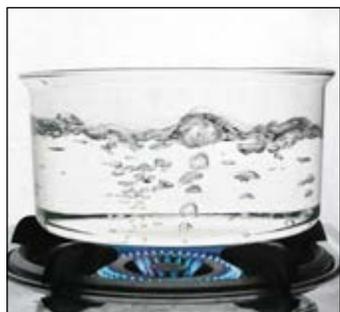
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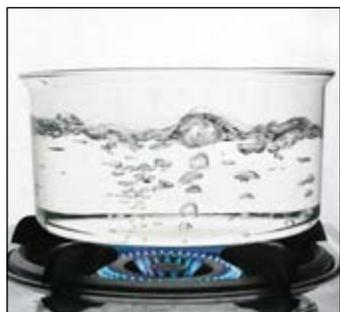
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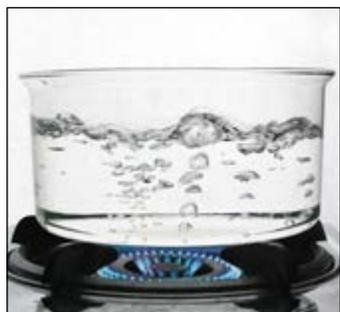
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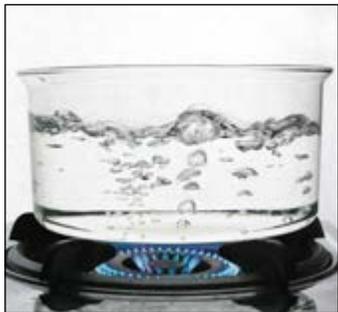
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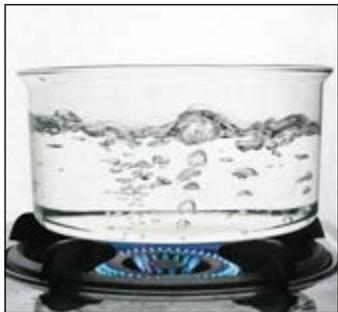
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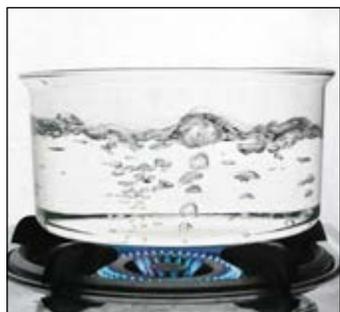
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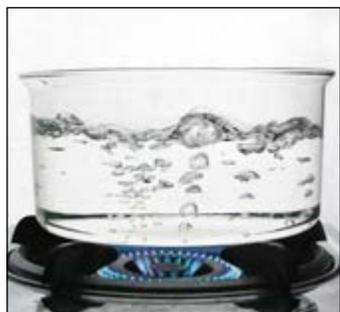
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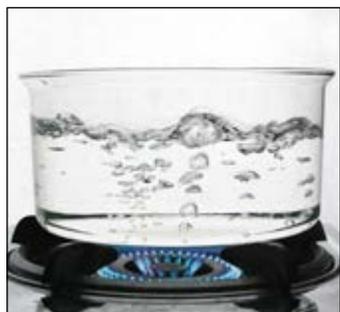
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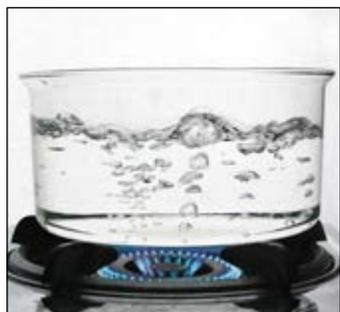
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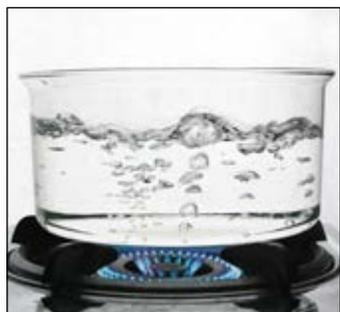
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Caloric Summary of Formula Recipes

Formula Name	Calories/oz	# of Scoops	Oz. of Water
Enfacare	20	2	4 ½
Enfacare	22	2	4
Enfacare	24	3	5 ½
Enfacare	27	4	6
Neosure	20	2	4 ½
Neosure	22	2	4
Neosure	24	3	5 ½
Neosure	27	4	6
Enfamil	20	2	4
Enfamil	24	3	5
Similac (round can 12.4 oz)	20	2	4
Similac (round can)	24	3	5
Similac (oval tub 1.45lb.)	19	2	4
Similac (oval tub)	20	3	5 ¾
Similac (oval tub)	24	5	7 ¾

Acknowledgements:

We would like to thank the members of the medically-enhanced infant formula mixing workgroup assembled from providers at Women & Infants and Kent hospitals. Their dedication and commitment to excellence in patient care made this resource possible.

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