

Evaporated Milk Infant formula – Adapted for Formula Shortage by Mary Newport MD

from *Baby and Child Care* by Benjamin Spock MD (1976 edition)

Dr. Spock's formula was used by millions of mothers to feed me and my generation of newborns and infants in the mid-20th century (corn syrup sugars and cow milk proteins are still used in today's formulas, along with soybean oil, sunflower, safflower, coconut, palm kernel oil and sometimes MCT oils):

Yield: 33 ounces (924 ml) of formula = 661 kcal

(Enough to feed a 12-pound baby only taking formula for 24 hours)

Entire recipe has: Protein 28 gm (17% of kcals) - carbs 65 gm (40%) - fat 31 gm (43%)

Some other nutrients: Calcium 1067 mg, sodium 433 mg, potassium 1239 mg, magnesium 98 mg, plus some vitamins and other nutrients (Nutrient data from USDA: <https://fdc.nal.usda.gov/>)

Note: Not for babies who are allergic to cow milk. Please talk to your pediatrician about other options.

Ingredients for making in a saucepan (then pour into clean bottle at each feeding):

Evaporated milk (use whole fat, not light or 2%) - 13-ounces + water - 21 ounces + corn syrup - 2 level tablespoons (**Optional from Dr Newport:** Add 1 teaspoon coconut oil to the entire warmed mixture to provide the lauric acid and decanoic acid found in breast milk.)

Instructions: Note that about 2 ounces of water will evaporate. Use a measuring cup for accuracy.

1. Add 21 ounces hot or cold nursery or purified water and 2 tablespoons corn syrup to a saucepan and bring to a boil at medium heat. Turn heat down and boil gently for 5 minutes. (**Optional:** Add 1 teaspoon coconut oil to the entire mixture to provide the lauric acid and medium-chain triglycerides found in breast milk.)
2. Wash the top of a 13-ounce can of evaporated milk with soap and water and rinse thoroughly. Use a beer can opener to punch two holes in the can (the second hole allows the air to escape and pours better.) Add the 13-ounces of evaporated milk to the saucepan with the water and syrup and stir with a spoon or a whisk to mix.
3. Pour the amount your infant likes to eat into each sterilized bottle and store in refrigerator for up to 24 hours. OR store in a sterilized quart jar in the refrigerator and add to clean bottle at each meal. Warm the bottle to room temperature before feeding the infant.

Very important note: Also give the **infant multivitamin drops with iron** (as recommended by your pediatrician), and **infant DHA supplement**. The information above does not constitute medical advice and is provided as a temporary measure for family's who cannot get infant formula due to the shortage...**please use the formula only with permission of your pediatrician.**

Ingredients for using terminal sterilization method (formula sterilized in bottles):

Evaporated milk (use whole fat, not light or 2%) - 13 ounces + water - 19 ounces + corn syrup - 2 level tablespoons (**Optional from Dr Newport:** Add 1 teaspoon coconut oil to the entire warmed mixture to provide the lauric acid and decanoic acid found in breast milk.)

Instructions: Mix all ingredients thoroughly and place in bottles before sterilization.

QUESTIONS AND ANSWERS:

Shouldn't mothers be advised to breastfeed?

Answer: Breastmilk is far and away the most ideal nutrition for the human newborn but may not be possible for all women. Breastmilk has hundreds more complex sugars, fats, and proteins and other biological substances not found in formula. If a woman gave birth in the last 6 to 8 weeks, it may be possible to get the milk to come in, but this takes time, and a formula like this might be needed in the meantime for families who can't get formula right now. It is unlikely that a mother whose baby is several months old would be able to produce enough milk for her baby if she hasn't been breastfeeding up until now.

Why is corn syrup added to the evaporated milk in this formula?

Answer: Formulas are made to try to duplicate the same amounts of sugars, fats, and proteins found in breastmilk. The main sugar in evaporated milk and breastmilk is lactose, but evaporated milk has less total sugar than breastmilk in a quart of the mixture without the corn syrup; therefore, the corn syrup is used to make up the difference.

Is corn syrup the same as high-fructose corn syrup?

Answer: No! There is no fructose in regular corn syrup. Corn syrup contains glucose, maltose, and oligosaccharides (complex sugars). Corn syrup was used in infant formulas for decades, but newer commercial formulas use maltodextrin which is made from corn in the US and wheat in some other countries. High-fructose corn syrup (HFCS) is made by a different process to deliberately add and increase fructose to the corn syrup. Do not use HFCS in this formula!!

What about honey? What about agave or maple syrup?

Answer: Honey can contain a botulinum toxin that is harmful to infants. Agave and maple syrup contain fructose. If fructose is a worry for you, corn syrup would be better.

What about plant-based drinks like soy, almond, coconut, or hemp milk?

Answer: Containers of these drinks are usually too diluted for an infant and do not contain the right proportion of sugar, fat, and protein for an infant to thrive. Some plant-based drinks may not include all of the essential amino acids that infants need.

What about using goat milk?

Answer: A formula made with evaporated goat milk could be an option and, if I find a good formula, I will share it.