

ALTERNATIVES TO BREASTFEEDING

The following information from Weston A. Price Foundation and the Real Milk Campaign is helpful for parents to either make their own formula from scratch or enhance a commercial formula.

Breast milk is the best milk for a newborn child. The fact goes virtually uncontested. It has been well documented why it is the one and only perfect food for the first six months of a child's life:

- _ The colostrum secreted in the first couple of weeks supplies immunities to the newborn.
- _ Following the colostrum, breast milk will contain friendly bacteria like bifidus to develop healthy bowel flora and further support the immune system.
- _ A mother's milk changes according to the physiologic needs of the child.
- _ A mother can heal and nourish a child by ingesting foods or herbs to pass through the milk.
- _ Breast milk is naturally rich in long-chain fatty acids for the development of a healthy nervous system.
- _ Breastfeeding improves hand-eye coordination and healthy alignment of the jaw and teeth.

The list for the child goes on and the benefits to the mother are numerous as well. However, the reality is that some women will not be able to breast feed for the first year due to issues with milk production, work or even adoption. We can still make sure the formula given to a child is closest to breast milk as possible.

MILK-BASED FORMULA

Makes 36 ounces

Our milk-based formula takes account of the fact that human milk is richer in whey, lactose, vitamin C, niacin and long-chain polyunsaturated fatty acids compared to cow's milk but leaner in casein (milk protein). The addition of gelatin to cow's milk formula will make it more digestible for the infant. Use only truly expeller expressed oils in the formula recipes, otherwise they may lack vitamin E.

The ideal milk for baby is clean, whole raw milk from old-fashioned cows that are certified-free of disease and that feed on green pasture. For sources of good quality milk, see www.realmilk.com or contact a local chapter of the Weston A. Price Foundation.

If the only choice available to you is commercial milk, choose whole milk, preferably organic and unhomogenized, and culture it with a piima or kefir culture to resort enzymes (available from G.E.M. Cultures 707-967-2922).

2 cups whole milk, preferably unprocessed milk from pasture-fed cows

¼ cup homemade liquid whey (See recipe for whey, below)

4 tablespoons lactose (available from The Apothecary 301-530-1112)

1 teaspoon bifidobacterium infantis (available from Natren 800-992-3323)

2 or more tablespoons good quality cream (not ultrapasteurized), more if you are using milk from Holstein cows

1 teaspoon cod liver oil (available from Radiant Life 888-593-8333)

1 teaspoon expeller-expressed sunflower oil

1 teaspoon extra virgin olive oil

2 teaspoons coconut oil (available from Radiant Life 888-593-8333)

2 teaspoons Frontier brand nutritional yeast flakes

2 teaspoons gelatin (available from Radiant Life 888-593-8333)

1 7/8 cups filtered water

1 teaspoon acerola powder

Add gelatin to water and heat gently until gelatin is dissolved. Place all ingredients in a very clean glass or stainless steel container and mix well. To serve, pour 6 to 8 ounces into a very clean glass bottle, attach nipple and set in a pan of simmering water. Heat until warm but not hot to the touch, shake bottle well and feed baby.

(Never heat formula in a microwave oven!)

Note: If you are using the Lact-Aid, mix all ingredients well in a blender.

Variation: Goat Milk Formula

Although goat milk is rich in fat, it must be used with caution in infant feeding as it lacks folic acid and is low in vitamin B12, both of which are essential to the growth and development of the infant. Inclusion of nutritional yeast to provide folic acid is essential. To compensate for low levels of vitamin B12, add 2 teaspoons frozen organic raw chicken liver, finely grated to the batch of formula. Be sure to begin egg-yolk feeding at four months.

LIVER-BASED FORMULA

Makes 36 ounces

Our liver-based formula also mimics the nutrient profile of mother's milk. It is extremely important to include coconut oil in the formula as it is the only ingredient that provides the special medium-chain saturated fats found in mother's milk. As with the milk-based formula, all oils should be truly expeller-expressed.

- 3 ¾ cups homemade beef or chicken broth
- 2 ounces organic liver, cut into small pieces
- 5 tablespoons lactose
- 1 teaspoon bifidobacterium infantis
- ¼ cup homemade liquid whey
- 1 tablespoon coconut oil
- 1 teaspoon cod liver oil
- 1 teaspoon unrefined sunflower oil
- 2 teaspoons extra virgin olive oil
- 1 teaspoon acerola powder

Simmer liver gently in broth until the meat is cooked through. Liquefy using a handheld blender or in a food processor. When the liver broth has cooled, stir in remaining ingredients. Store in a very clean glass or stainless steel container. To serve, stir formula well and pour 6 to 8 ounces in a very clean glass bottle. Attach a clean nipple and set in a pan of simmering water until formula is warm but not hot to the touch, shake well and feed to baby. (Never heat formula in a microwave oven!)

FORTIFIED COMMERCIAL FORMULA

Makes 35 ounces

This stopgap formula can be used in emergencies, or when the ingredients for homemade formula are unavailable.

- 1 cup Mead Johnson low-iron, milk-based formula
- 29 ounces filtered water (3 5/8 cups)
- 1 large egg yolk from an organic egg, cooked 3 ½ minutes (See recipe for egg yolk, below)
- 1 teaspoon cod liver oil

Place all ingredients in a blender or food processor and blend thoroughly. Place 6-8 ounces in a very clean glass bottle. (Store the rest in a very clean glass jar in the refrigerator for the next feedings.) Attach a clean nipple to the bottle and set in a pan of simmering water until formula is warm but not hot to the touch, shake well and feed to baby. (Never heat formula in a microwave oven!)

EGG YOLK FOR BABY

Egg yolk should be baby's first solid food, starting at 4 months, whether baby is breastfed or formula-fed. Egg yolks from pastured hens will contain the special long-chain fatty acids so critical for the optimal development of the brain and nervous system. The whites may cause an allergic reaction and should not be given to baby until he is at least one year old.

- 1 organic egg from a pasture-fed hen
- ½ teaspoon grated raw organic liver, frozen for 14 days (optional)

Boil egg for 3 ½ minutes. Place in a bowl and peel off shell. Remove egg white and discard. Yolk should be soft and warm, not hot, with its enzyme content intact.

HOMEMADE WHEY

About 5 cups

Homemade whey is easy to make from good quality plain yoghurt, or from raw or cultured milk. You will need a large strainer that rests over a bowl.

If you are using yoghurt, place 2 quarts in the strainer lined with a tea towel. Cover with a plate and leave at room temperature overnight. The whey will drip out into the bowl. Place whey in clean glass jars and store in the refrigerator.

If you are using raw or cultured milk, place 2 quarts of the milk in a glass container and leave at room temperature for 2-4 days until the milk separates into curds and whey. Pour into the strainer lined with a tea towel and cover with a plate. Leave at room temperature overnight. The whey will drip out into the bowl.

Store in clean glass jars in the refrigerator.