

FEEDING BABIES



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Any effort to ensure optimal nutrition of your baby must begin long before he or she is conceived. The wisdom of primitive peoples is vastly superior to our own in this regard, in that a common practice among isolated groups is the feeding of special foods to both men and women for a period of time before conception occurs. Dr. Weston Price's studies revealed that these foods—including organ meats, fish heads, fish eggs, shell fish, insects and animal fats—were rich in fat-soluble vitamins A and D as well as macro- and trace minerals. Couples planning to have children should eat liberally of organic liver and other organ meats, fish eggs and other seafood, eggs, and the best quality butter, cream and fermented milk products they can obtain for at least six months before conception. A daily cod liver oil supplement is also advised. (See note on cod liver oil, page 618.) Organic meats, vegetables, grains and legumes should round out the diet, with a special emphasis on the leafy green vegetables rich in folic acid, which is necessary for the prevention of birth defects like spina bifida.

A good rule for pregnant women is two eggs, raw milk or bone broth, and cod liver oil daily, and liver at least once a week. Appropriate amounts of superfoods, such as high-vitamin butter oil, evening primrose, borage or black currant oil, bee pollen, mineral powder, wheat germ oil and acerola powder, will provide optimal amounts of nutrients for your unborn child. Beet kvass (page 610) and kombucha (page 596), with their liver-supporting properties, are useful in preventing future morning sickness—as are foods rich in vitamin B₆, such as appropriately prepared raw fish and raw meat (pages 231-242).

A cleansing fast, undertaken six months or more before conception, is a good idea, but during the six months before conception and nine months of pregnancy it is vital to consume nutrient-dense foods. Every attempt should be made to enhance the digestibility of the diet through meat broths and the inclusion of lacto-fermented grains, beverages and condiments. All empty calories and harmful substances should be eliminated—sugar, white flour, hydrogenated and rancid vegetable oils, excess of polyunsaturated oils, tobacco, caffeine and alcohol. Oral contraceptives should be avoided during this preparatory period as these deplete many nutrients, particularly zinc, the "intelligence mineral."

The importance of breastfeeding your baby, especially during his first few months, cannot be overemphasized. Breast milk is perfectly designed for your baby's physical and mental development. Breastfed babies tend to be more robust, more intelligent and freer from allergies and other complaints, especially intestinal difficulties, than those on formula. In addition, colostrum produced by the mammary glands during the first few days of a baby's life helps guard him against colds,

flu, polio, staph infections and viruses.

It must be emphasized, however, that the quality of mother's milk depends greatly on her diet. Sufficient animal products will ensure proper amounts of vitamin B₁₂, A and D as well as all-important minerals like zinc in her milk. Lactating women should continue with a diet that emphasizes liver, eggs and cod liver oil. Whole milk products and stock made from bones will ensure that her baby receives adequate calcium.

Pesticides and other toxins will be present in mother's milk if they are present in the diet, so all care should be taken to consume organic foods of both plant and animal origin during pregnancy and lactation. Organic foods also provide more omega-3 fatty acids needed for baby's optimal development. Hydrogenated fats should be strictly avoided as these result in reduced fat content in mother's milk. *Trans* fats accumulate in mother's milk and can lead to decreased visual acuity and learning difficulties in the infant.

Breastfeeding should ideally be continued for six months to a year. If mother's milk is not adequate or of good quality, or if the mother is unable to breast feed for whatever reason, a homemade baby formula, rather than a commercial formula, can be used. Commercial infant formulas are highly fabricated concoctions composed of milk or soy powders produced by high-temperature processes that overdenature proteins and add many carcinogens. Milk-based formulas often cause allergies while soy-based formulas contain mineral-blocking phytic acid, growth inhibitors and plant forms of estrogen compounds that can have adverse effects on the hormonal development in the infant. Soy-based formulas are also devoid of cholesterol, needed for the development of the brain and nervous system.

Fortunately, it is possible to compose a formula that closely resembles mother's milk. Whenever possible this formula should be based on raw organic milk, from cows certified free of tuberculosis and brucellosis. The milk should come from cows that eat food appropriate to cows, which is green grass in the warm months and hay and root vegetables in the winter, not soy or cottonseed meal. Ideally, the milk should come from Jersey or Guernsey cows, rather than Holsteins, so that it has a high butterfat content. This may be purchased at the farm in some states. Of course, such milk should be produced under the cleanest possible conditions and stored in sterilized containers. But the milk should be unheated. Properly produced raw milk does not pose a danger to your baby, in spite of what numerous public health propagandists may assert. Raw milk contains enzymes and antibodies that make it less susceptible to bacterial contamination than pasteurized milk, while many toxins that cause diarrhea and other ailments survive the pasteurization process. Your nose will tell you if raw milk is contaminated or spoiled—but pasteurized milk may be seriously contaminated with no telltale warning odor. Raw milk is easier for your baby to digest than pasteurized and less likely to cause cramps, constipation and allergies. If it is not possible for you to

obtain certified raw milk, begin with the best quality pasteurized whole milk you can find, milk that is not homogenized, and culture it for 12 hours with piima culture or kefir grains to restore enzymes lost through pasteurization (pages 83 and 88). Or, you may prepare a milk-free formula made from organic liver. Organic liver should also be added to formula made from goat milk, as goat milk is deficient in iron, folic acid and vitamin B₁₂.

Both our milk-based and meat-based formulas have been designed to provide maximum possible correspondence with the various components of human milk. Our milk-based formula takes account of the fact that human milk is richer in whey, lactose, vitamin C, niacin, manganese and long-chain polyunsaturated fatty acids compared to cows milk but leaner in casein (milk protein). The addition of gelatin to cow's milk formula will make it more digestible for the infant. The liver-based formula also mimics the nutrient profile of mother's milk. Use only truly expeller-expressed oils (see Sources) in the formula recipes, otherwise they may lack vitamin E.

A wise supplement for all babies—whether breast fed or bottle fed—is an egg yolk per day, beginning at four months. Egg yolk supplies cholesterol needed for mental development as well as important sulphur-containing amino acids. Egg yolks from pasture-fed hens or hens raised on flax meal, fish meal or insects are also rich in the omega-3 long-chain fatty acids found in mother's milk but which may be lacking in cow's milk. These fatty acids are essential for the development of the brain. Parents who institute the practice of feeding egg yolk to baby will be rewarded with children who speak and take directions at an early age. The white, which contains difficult-to-digest proteins, should not be given before the age of one year. Small amounts of grated, raw organic liver may be added to the egg yolk after six months. This imitates the practice of African mothers who chew liver before giving it to their infants as their first food. Liver is rich in iron, the one mineral that tends to be low in mother's milk.

A pinch of sea salt added to the yolk will also facilitate brain development. Salt is necessary to activate the formation of glial cells in the brain, the cells that make connections and help us think faster. Unfortunately, salt is often left out of commercial baby food, in the mistaken belief that salt should be avoided. As you add other foods to baby's diet, be sure that they are salted with unrefined sea salt.

An unfortunate practice in industrial societies is the feeding of cereal grains to infants. Babies produce only small amounts of amylase, needed for the digestion of grains, and are not fully equipped to handle cereals, especially wheat, before the age of one year. (Some experts prohibit all grains before the age of two.) Baby's small intestine mostly produces one enzyme for carbohydrates—lactase, for the digestion of lactose. (Raw milk also contains lactase.) Many doctors have warned that feeding cereal grains too early can lead to grain allergies later on. Baby's earliest solid foods should be animal foods as his digestive system, although

immature, is better equipped to supply enzymes for digestion of fats and proteins rather than carbohydrates.

Carbohydrate in the form of fresh, mashed banana can be added after the age of six months as bananas are rich in amylase enzymes and thus are easily digested by most infants. Some preindustrial societies give a gruel of cereal grains, soaked 24 hours, to babies one year or older. Soaking in an acidic medium neutralizes phytates and begins the breakdown of carbohydrates, thus allowing children to obtain optimum nourishment from grains. It also provides lactic acid to the intestinal tract to facilitate mineral uptake.

At the age of about ten months, meats, fruits and vegetables may be introduced, one at a time so that any adverse reactions may be observed. Carbohydrate foods, such as potatoes, carrots, turnips, etc., should be mashed with butter. (Don't overdo on the orange vegetables as baby's immature liver may have difficulty converting carotenoids to vitamin A. If your baby's skin develops a yellowish color, a sign that he is not making the conversion, discontinue orange vegetables for a time.) Lacto-fermented taro or other roots (page 102) make an excellent carbohydrate food for babies. It is wise to feed babies a little buttermilk or yoghurt from time to time to familiarize them with the sour taste. Above all, do not deprive your baby of animal fats—he needs them for optimum physical growth and mental development. Mother's milk contains over 50 percent of its calories as fat, much of it saturated fat, and children need these kinds of fats throughout their growing years.

It is unwise to give baby fruit juices, especially apple juice, which provide only simple carbohydrates and will often spoil an infant's appetite for more nutritious foods. Sorbitol, a sugar-alcohol in apple juice, is difficult to digest. Studies have linked failure to thrive in children with diets high in apple juice. High-fructose foods are especially dangerous for growing children. The best beverage for a growing child is whole raw milk, which can be introduced slowly as the baby is weaned from the breast or from homemade formula.

Remember that babies should be chubby and children should be sturdy and strong, not slim. Babies need body fat to achieve optimum growth. The fat around their ankles, knees, elbows and wrists is growth fat that ensures adequate nourishment to the growth plates at the ends of the bones. Fat babies grow up into sturdy, well-formed adults, neither too tall nor too short and either slender or stocky depending on genetic heritage.

Keep your baby away from processed junk foods as long as possible—but do not think that you can do this indefinitely. Unless you lock your child in a closet—or live in a closed community of like-minded parents—he will come in contact with junk foods sooner or later. His best protection is the optimal diet that you have given him during his infancy and your loving example and training in later years.

During the process of digestion, lactose breaks up into two other sugars, glucose (dextrose) and galactose. In myelin there is a large amount of galactolipids in the nature of phrenosin (cerebrosides) of various kinds. Cerebrosides are compounds found in the brain. Galactose is one of the constituents of this material. . . . Mother Nature must have intended that the young infant have this important substance, so amply provided for it in breast milk. . . . I have long held the opinion that the tremendous use of various [other] sugars in milk formulas over the years could be an important factor in the high percentage of mental and nervous breakdowns in our civilian population, not to mention the alarming numbers of such cases that have been reported in the military. The demyelination of the nerves is what makes the dread disease multiple sclerosis so crippling. This disease was quite rare in the days of breast-feeding. Emory W. Thurston, PhD *Nutrition for Tots to Teens*

Alexander and Bullowa . . . observed that the casein of milk was an irreversible colloid and that it could be protected by the addition of a reversible colloid, such as gelatin. They pointed out, moreover, that woman's milk was higher in albumen or protective colloid than cow's milk and that the curd obtained from the coagulation of woman's milk was softer and more easily digested. When gelatin was added to cow's milk, a curd of equally desirable characteristics was formed. In addition, gelatin . . . served not only to emulsify the fat but also, by stabilizing the casein, improved the digestibility and absorption of the fat. . . . Experimental feeding tests show that milk containing gelatin is more rapidly and completely digested in the infant. N. R. Gotthoffer *Gelatin in Nutrition and Medicine*

MILK-BASED FORMULA

Makes 36 ounces

- 2 cups organic, certified clean raw milk*
or organic pasteurized, nonhomogenized piima milk (page 83), preferably from pasture-fed Jersey or Guernsey cows
- 1/4 cup homemade liquid whey (page 87)*
- 4 tablespoons lactose (see Sources)*
- 1/4 teaspoon bifodobacterium infantis (see Sources)*
- 2 tablespoons good quality cream*
(not ultrapasteurized)
- 1/2 teaspoon high-vitamin or*
1 teaspoon regular cod liver oil
(see note on cod liver oil, page 618)
- 1 teaspoon unrefined sunflower oil (see Sources)*
- 1 teaspoon extra virgin olive oil*
- 2 teaspoons coconut oil (see Sources)*
- 2 teaspoons nutritional yeast*
- 2 teaspoons gelatin (see Sources)*
- 1 7/8 cups filtered water*
- 1/4 teaspoon acerola powder (see Sources)*

Add gelatin to water and heat gently until gelatin is dissolved. Place all ingredients in a blender and blend well. Transfer to a very clean glass or stainless steel container and mix well. (Note: If milk is from Holstein cows, add an additional 1-2 tablespoons cream.)

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, *never* heat formula in a microwave oven!)

Variation: Goat Milk Formula

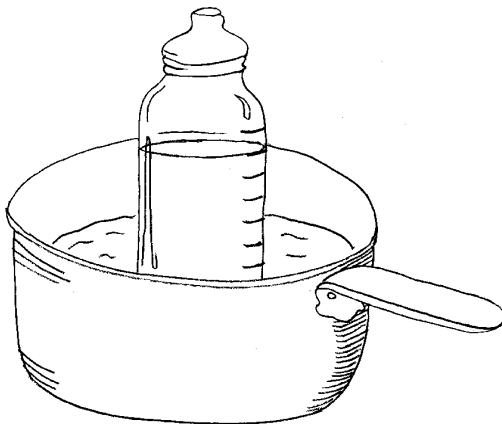
Although goat milk is rich in fat, it must be used with caution in infant feeding as it lacks folic acid and is low in vitamin B₁₂, both of which are essential to the growth and development of the infant. Inclusion of nutritional yeast to provide folic acid is essential. To compensate for low levels of vitamin B₁₂, add *2 teaspoons organic raw chicken liver, frozen for 14 days, finely grated* to the batch of formula. Be sure to begin egg-yolk feeding at four months.

MEAT-BASED FORMULA

Makes 36 ounces

- 3 3/4 cups homemade beef or chicken broth, (page 122 or 124)*
- 2 ounces organic liver, cut into small pieces*
- 5 tablespoons lactose (see Sources)*
- 1 teaspoon bifidobacterium infantis (see Sources)*
- 1/4 cup homemade liquid whey (page 87)*
- 1 tablespoon coconut oil (see Sources)*
- 1/2 teaspoon high-vitamin or*
 - 1 teaspoon regular cod liver oil*
 - (See note on cod liver oil, page 618)*
- 1 teaspoon unrefined sunflower oil (see Sources)*
- 2 teaspoons extra virgin olive oil*
- 1/4 teaspoon acerola powder (see Sources)*

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!) Note: It is very important to include the coconut oil in this formula as it is the recipe's only source of antimicrobial saturated fatty acids.



Milk-based commercial formulas are bad enough, but formula based on soy protein should never have been brought to market. This list of toxins in soy is a long one: phytic acid, which blocks absorption of minerals, especially zinc; protease inhibitors which block the digestion of protein; and high levels of aluminum, fluoride, MSG and manganese, all of which can have adverse effects on the brain and nervous system.

But it is the phytoestrogens or isoflavones in soy that give the most cause for concern. These compounds not only depress thyroid function, they also can have profound hormonal effects, especially at the levels to which the soy-fed infant is exposed. A recent study of infants fed soy formula found that they had concentrations of estrogen compounds at levels 13,000 to 22,000 times higher than infants on milk-based formula or breast milk. Infant boys go through a "testosterone tide" during the first six months of their lives, during which they normally have testosterone levels nearly equal to those of mature men. This early surge of male hormones programs the reproductive system, brain and other organs to take on male characteristics at puberty. Researchers are now wondering whether the feeding of estrogen-rich soy formula to infant boys interferes with this process and is a partial explanation the increase in learning disabilities and maturation problems in boys. Soy infant feeding may also explain why so many girls are developing breasts and other sexual characteristics before the age of eight years old.

Anecdotal reports of other adverse effects include extreme emotional behavior, learning difficulties, immune system problems, irritable bowel syndrome and depression. SWF

Both gelatin and [lactic] acid when added to cow's milk seem to make the milk more digestible to the ordinary infant. This is evidenced by the fact that both vomiting and constipation appeared to be reduced when either of these substances was added, and a better rate of gain was made on the low curd tension milks. Similarly, it was noted that a much smaller percentage of the children developed diarrhea on the modified milks than on the unaltered cow's milk. Attention is called to the lower incidence of upper respiratory infections in the gelatin milk group. N. R. Gotthoffer *Gelatin in Nutrition and Medicine*

It is a remarkable fact that the young of most, including man, have weak digestive fluids; particularly do they have low amylase content in the saliva. The suckling animal or infant does not need to secrete a great quantity of enzymes because milk, its first food, does not demand so many of them for its digestion as it has quite a complement of its own enzymes. Edward Howell, MD *Food Enzymes for Health and Longevity*

Soy-based infant formula may adversely affect hormonal development in neonatal infants and should not be sold commercially. Soya is the richest dietary source of phytoestrogens, a plant form of the female hormone estrogen. Neonatal infants are particularly vulnerable to estrogens and insufficient research on the long-term health effects of phytoestrogens warrants a ban on the nonprescription sale of soy formula. *New Zealand Medical Journal*

FORTIFIED COMMERCIAL FORMULA

Makes about 35 ounces

1 cup Mead Johnson low-iron, milk-based powdered formula
29 ounces filtered water (3 5/8 cups)
1 large egg yolk from an organic egg, cooked 3 1/2 minutes (page 605)
1/2 teaspoon high-vitamin or 1 teaspoon regular cod liver oil (see note on cod liver oil, page 618)

This stopgap formula can be used in emergencies, or when the ingredients for homemade formula are unavailable. 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 to heat gently. (Never, *never* heat formula in a microwave oven!)

DIGESTIVE TEA FOR BABY

about 2 cups fresh anise leaves
about 2 cups fresh mint leaves
2 quarts filtered water

This is a folk remedy for treating constipation and intestinal gas in infants.

Bring water to a boil and pour over the herbs. Let steep until water cools. Strain. Give tepid tea to baby, about 4 ounces at a time.

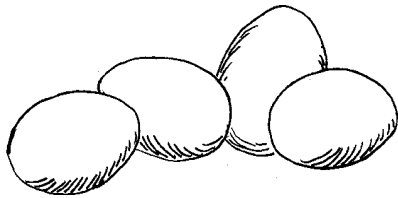
Note: When a nursing mother drinks this tea, she passes along the benefits to her colicky baby!

EGG YOLK FOR BABY

*1 organic high-omega-3 egg
or egg from a pasture-fed hen
pinch sea salt
1/2 teaspoon grated raw organic liver,
frozen for 14 days (optional)*

Boil egg for 3 1/2 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. Sprinkle with a pinch of salt.

If you wish to add liver, grate on the small holes of a grater while frozen. Allow to warm up and stir into egg yolk.



CEREAL GRUEL FOR BABY

Makes 2 cups

*1/2 cup freshly ground organic flour of spelt,
kamut, rye, barley or oats
2 cups warm filtered water plus 2 tablespoons whey,
yoghurt, kefir or buttermilk (pages 83-87)
1/4 teaspoon sea salt*

Mix flour with water mixture, cover and leave at room temperature for 12 to 24 hours. Bring to a boil, stirring frequently. Add salt, reduce heat and simmer, stirring occasionally, about 10 minutes. Let cool slightly and serve with cream or butter and a small amount of a natural sweetener, such as raw honey. Note: Do not give cereals or raw honey to infants before the age of one year.

Many cultures recognize that eggs are a brain food and encourage pregnant and nursing mothers to eat as many as possible. In China, nursing mothers who can afford it eat up to ten eggs per day!

Unfortunately, most commercial eggs available in the supermarkets are inferior, nutritionally speaking, to the eggs from free-range hens of yesteryear. The typical supermarket egg from battery hens given grain feed contains nineteen times more omega-6 fatty acids than omega-3 fatty acids.

Studies have shown that hens fed flax meal or fish meal rich in omega-3 fatty acids have equal amounts of omega-6 and omega-3, a very beneficial balance. Eggs from hens allowed to eat bugs and graze on green pasture would also have this favorable balance. In addition, these eggs are richer in certain special long-chain fatty acids needed for the optimal mental development of the infant's brain, nervous system and visual acuity. These fatty acids include arachidonic acid (AA), eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). Many researchers, most notably the eminent Dr. David Horrobin, have warned that adequate EPA and DHA in the diet of infants is needed to prevent learning disabilities and defects in visual function.

Egg yolks also provide cholesterol needed for the optimal development of the nervous system.

So do not hesitate to give your infant his or her daily egg yolk, starting at four months. It is the yolk that contains the beneficial fatty acids. The proteins in the white of the egg may be difficult to digest until baby is older. SWF

TIPS FOR SUCCESSFUL BREASTFEEDING

- ❖ The right diet is the key to having a good supply of nourishing milk. It should be followed from before conception and contain high levels of healthy animal fats. Follow the suggestions given in pages 598-601 and be sure to eat plenty of food. When you are pregnant or breastfeeding, it is no time to diet!
- ❖ Avoid *trans* fatty acids, found in margarines, vegetable shortenings and almost *all* processed foods. *Trans* fats lower the overall fat content of mother's milk, depriving the baby of important nutrients and reducing the chances for successful breastfeeding.
- ❖ Try to arrange to have good help for the first four weeks after the baby is born so that you will have adequate rest. Husband or partner, grandparents, relatives, friends, housekeepers or even a professional baby nurse should be on hand so that the nursing mother can concentrate on getting optimal nourishment and plenty of sleep.
- ❖ Fermented foods and beverages, and porridges of soaked grains, are said to increase milk supply.
- ❖ Consume plenty of liquids in the form of whole milk (preferably raw), stock or soups based on stock, and lacto-fermented beverages.
- ❖ If you have *any* qualms or fears about not having enough milk, assemble the ingredients for homemade formula, and purchase the Lact-Aid breastfeeding support system so that you have what you need to provide a nourishing supplement, if that is required. The Lact-Aid (see Sources) allows you to breastfeed while giving a homemade supplement to your baby. Sometimes just a few days of supplementing using this device can increase milk flow, and just having the supplies on hand can be enough to give you the peace of mind that allows your milk to keep flowing. While you are pregnant, be sure to scout out the best quality milk available in your area—you will need this for yourself, and for the baby after weaning, even if the breastfeeding goes well.
- ❖ If, in spite of these measures, your milk supply is inadequate, don't feel guilty. Lack of adequate milk supply is relatively common, especially as baby grows and his appetite increases. You have done the best you could and your baby can still grow up healthy, strong and smart on a homemade, whole-food baby formula.