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*Breast-
Feeding:
Nature's
Way*

Breastfeeding Ecology With Love

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Dr. Hiroshi Nakajima, Director- General of the World Health Organization, declared to the World Health Assembly in May 1989, "In the past ten years profound changes have been wrought in our environment... bringing increase of diseases, such as malaria, and destruction of the natural habitat... Natural resources are irretrievably lost, the health of populations is damaged, and the under-budgeted health services are left to bear the burden" (1). Baby-Bottle Disease brought on by the improper use of infant formula, is one example of a manmade illness that is disastrously affecting health and the environment and, in the process, squandering a unique natural resource - breastmilk.

The ecological movement has adopted certain key words in bringing home its message of growth in harmony with the environment: vital, pure, natural. All of these can equally apply to breastfeeding, which is clearly concerned with the health development of the human species and draws on a pure natural resource without harm to the environment.

* **Vital:** Breastmilk is a living substance. "Human milk contains almost as many live cells as blood itself. In fact, in one culture it is called white blood.' These cells can actively destroy bacteria, fungi and intestinal parasites and help to regulate the immune response ... Mother's Milk is good medicine, as well as good food" (2).

Infant formula is, literally, a dead product. At every stage of the manufacturing process, the initial cows' milk is processed, dried, and manipulated. In a bottle of prepared formula, the only living things remaining may well be the pathogens in the milk powder and the water or on the teat and the bottle.

* **Pure:** breastmilk is a pure product. It comes with built-in protection against disease. Germs multiply less rapidly in breastmilk than in artificial baby milk and at room temperature will remain uncontaminated for up to 6 hours (3). Germs breed rapidly in artificial milk. Bacteria may already be present in the tin of formula. A study carried out in Holland found dangerous bacteria, for example, which can cause meningitis and sepsis, in 52,5% of the formula samples, which came from sources as geographically separate as Belgium and Brazil, Japan and Uruguay (4).

According to the World Health Organization, even the fact that, where insect-killers are used in the home, pesticide residues have been found in mothers' milk is not a reason to stop breastfeeding. "Despite

the presence of PCBs, PCDDs and PCDFs in human milk, breastfeeding should be encouraged and promoted on the basis of convincing evidence of the benefits of human milk to the overall health and development of the infant" (7).

In addition, each time the original product, cows' milk is treated, by homogenization or freeze-drying or each time an ingredient is added to modify the composition, contaminants are accidentally introduced. Metals such as aluminium can contaminate formula during the manufacturing process. A study carried out in Canada revealed that certain samples of milk-based formula contained 40 times more aluminium than breastmilk (6). Contaminants may also be present in packaging, such as soldered cans. Lead is a cumulative poison which damages the brain: One US study showed lead levels in formula as contributing to a lead intake by babies that was nine times higher than the level considered the threshold of risk (7).

* **Natural:** What could be more natural than breastmilk, uniquely adapted to the needs of each baby at its particular stage of growth? Anti-infective proteins are protective elements that increase in human milk as the baby grows, thus adapting to the baby's environment. By the time a child reaches the age of 15 months and has increased its contact with the outside world, the production of lactoferrin will have peaked, and the amount of lysozyme will have multiplied by six (5).

We "often forget or trivialize a key resource, breastmilk, which contributes to the conservation of life on many different levels" (8). Breastmilk is not the only valuable natural resource wasted by bottlefeeding. In many parts of the world, water and firewood are precious resources that are disappearing at an alarming rate. For a mother to prepare 6 feeds correctly every day, bottles and teats must be boiled for 10 minutes (9). This totals a boiling time of up to 90 minutes per day. It takes 200 g of wood to boil one litre of water, so in one year feeding a child artificially will use up to 73 k of wood (10).

To prepare the feeds for a baby of three months it takes one litre of water a day, plus 2 litres to boil the bottles and teats, and more to wash and rinse the bottles. "...Women [in developing countries] have too little water, too little fuel to sterilize bottles and feeds" (11), and once these essential precautions are neglected, germs multiply and diarrhea and disease take their toll.

In other parts of the world, rubbish hills are rapidly turning into rubbish mountains. "For every 3 million bottle-fed babies, 450 million tins of formula are consumed. The resulting 70.000 tons of metal in the form of discarded tins is not recycled"(12).

Breastfeeding, on the other hand, is the best way of using scarce resources. By eating a little extra food and by drinking a little extra water, a woman produces the highest quality food for her baby. "The lactating mother is an exceptional national resource, because she not only produces a unique and valuable infant food, but also the production process of lactation provides measurable benefits to health..."(13).

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