

Present Day Concepts on Promotion of Breastfeeding in India

This has reference to the Editorial entitled "Present day concepts on promotion of breastfeeding in India"(1)- The learned expert has remarked (para 1; lines 9-10) that "bottle-feeding pollutes our air, water and land." I doubt if a more absurd statement has ever been published in a scientific journal. Or, is the author, also an expert on

pollution and possesses a deeper knowledge, of which the ordinary reader of the Journal is ignorant? In the latter case, some explanation of how bottle-feeding pollutes our air, water and land (and perhaps our minds) would be of much interest.

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Reply

I thank Dr. Srivastava for his outburst because it gives me an opportunity to dilate upon the ecological impact of bottle-feeding discussed in more details elsewhere(1).

To bottle feed, one needs artificial milk, bottle, water and an energy source for milk processing, boiling the water and for sterilizing the bottle. While breastmilk remains a renewable resource, artificial baby milks are processed and are nonrenewable substitutes for this natural resource.

Most artificial baby milks are heat-treated animal milk. The energy required to reach the high temperatures and to create the mechanical procedures required in the

manufacturing process will cause air pollution as well as require natural resources in the form of fuel. Though milk or soya is the main ingredient in artificial baby milks, it is added to a cocktail of factory-processed substances. The milk often travels considerable distances before processing and the tin, paper, bottles, *etc.* also have to be transported. Considerable pollution is caused by such unnecessary transport. The baby milk tins have paper labels besides the large amounts of paper used to promote the product. While some of the tins may be reused, the majority are simply thrown away and rarely recycled. Bottles, teats and related equipment require plastic, glass, rubber and silicon. These are usually reused but rarely recycled at the end of their lives. All these products waste natural resources, cause pollution in their manufacture and that of packaging, and result in a waste disposal problem.

Commercial sterilizing fluids are sold to clean bottles and teats. Most of these fluids are based on chlorine bleach. Chlorine production is linked to dioxine emissions. Dioxine has been described as a highly toxic compound and the only way of dealing with it is to prevent its production.

Most lactating women do not menstruate for a prolonged period when they do not require sanitary towels or tampons. Most of the towels are flushed down the toilet. A major share of these are released untreated into the sea where tampons and sanitary towels take months to biodegrade. The toll on our environment due to pulping, bleaching and other chemical processes, cotton and pesticides applied to it, rayon and the dioxines produced during its manufacture must be added to this, as must the damage caused by packaging, transport and disposal.

All these waste materials, as they are rarely recycled, must be disposed of. The most popular form of getting rid of our waste is dumping it in landfill sites. Most of these are unlined, the theory being that any pollutants will be diluted and disposed; in practice, this allows the ground water to be polluted. Fears have led to some landfill sites being lined; these are better but can

still overflow in heavy rain, and any lining will eventually leak. Another method of waste disposal is incineration, a potent source of airborne dioxins.

In certain situation, fire wood is also used to boil water and to sterilize the feeding equipment. It takes 200 g of wood to boil one litre of water, so in one year an artificially fed child would use up at least an extra 73 kg of precious wood(2). More bottle-fed babies means more deforestation, soil erosion, climatic changes, and pollution. Breastmilk, on the other hand, is one of the few foodstuffs which is produced and delivered to the consumer without any pollution, unnecessary packaging or waste.

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REFERENCES

1. Radford A. The ecological impact of bottle-feeding. *Breastfeeding Rev* 1992, 2: 204-208.
2. Gilman RH, Skillikorn P. Boiling of drinking water: Can a fuel-scarce community afford it? *WHO Bull* 1985, 63: 157-163.

Undigested Food Presenting as Bizarre Objects in Stool

Human intestine digests or absorbs very little amount of cellulose and pectin. The skin of the fruits and vegetables and the covering of the seeds consist of cellulose or pectin. Thus, most of the seeds and skin in the food pass as such in the stool if

swallowed intact, *i.e.*, if not cut or crushed. Sometimes, the color in the food also imparts color to the stool, *e.g.*, the spinach colors the stool green. I have come across two cases where undigested part of food presented as bizarre objects.

Seven years ago a 5-month-old female child was brought by the mother with the complaints that the child sometimes passed 5-7 mm long black worms in the stool. The