

INFANT AND YOUNG CHILD FEEDING

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<http://hyg.lf1.cuni.cz/> Materials to download

WHO about breastfeeding

- Breastfeeding is an unequalled way of providing ideal food for the healthy growth and development of infants;
- It is also an integral part of the reproductive process with important implications for the health of mothers.



Milk formula increases infant mortality

1974

Thousands studies since then

The baby killer

A War on Want investigation into the promotion and sale of powdered baby milks in the Third World.

By Mike Mulder

March 1974

Published and printed by War on Want, 497 Chesham Road, London N7 9BE.

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Thanks are due to new internationalist magazines and their staff who first drew attention to the subject and encouraged War on Want to investigate further. Particularly to Hugh Gough who did the initial work for new internationalist and made the material available to us.

Thanks also to the doctors and professionals in other fields who gave their time and advice, especially to Dr. David Henry of the Tropical Child Health Unit at London University's Institute of Child Health, who made many helpful suggestions as well as leading the staff of this report.

Certain of the companies involved have also been very patient in explaining their view of the situation. In particular, Dr. H. Mulder and Mr. G. P. Patten of Nestlé's Diets Division gave me a great deal of their time, as did Mr. J. B. B. of Unilever's International Division. These gentlemen and others make it clear that the companies are not interested in the health of the children of the Third World, but only in the profits of their shareholders.

It is not the aim of this report to draw attention to the health of the children of the Third World, but to the health of the children of the Third World, and to the health of the children of the Third World.

L9EAD, SEPTEMBER 1972



FREE DUMEX FEEDING BOTTLE

Buy two tins of Dumex Baby Food and get a FREE Feeding bottle now!

Dear Dumex Mothers and Babies,

Buy two tins of Dumex Baby Food and send the paper discs from inside the tins to me and I will send you a 250 cc feeding bottle specially made for members of the Dumex Babies Union.

Join the Babies Union now by feeding your baby with Dumex Baby Food so your baby will grow fat and strong.

Baby d
2nd President.

Issued by Dumex Limited, Makers of DUMEX BABY FOOD.

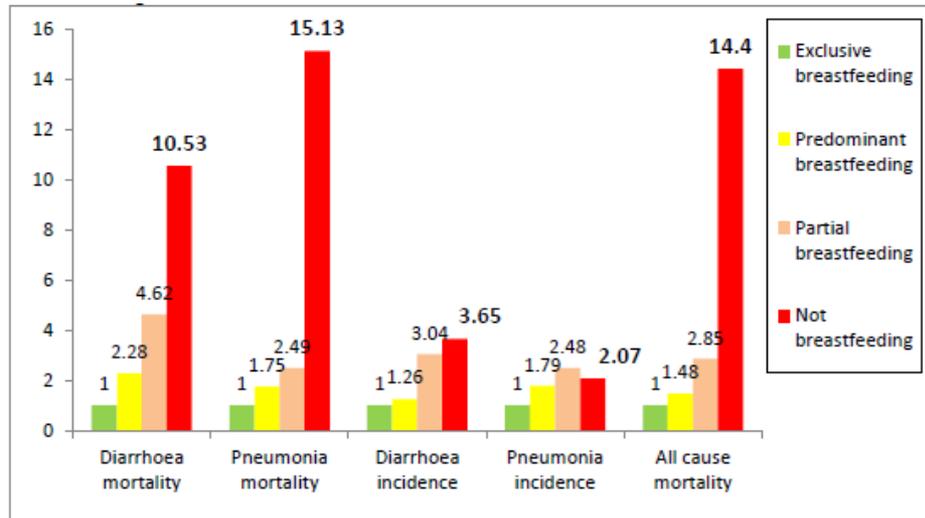
DUMEX BABIES UNION. Name: _____
Address: _____

Please send a FREE Dumex Babies Union Feeding Bottle for my baby. I enclose two paper discs from two Dumex Baby Food tins.

Offer closes 31st December 1972

Send this application to:
The Dumex Babies Union President,
P. O. Box 2104, Lagos.

Relative risk non-breastfeeding vs exclusive breastfeeding 0-5 months



Black R. *et al.* Maternal and child undernutrition: global and regional exposures and health consequences. (Maternal and Child Undernutrition Series 1). *The Lancet* 2008.



WHO/UNICEF Feeding recommendations

Endorsed by World Health Assembly 2002

- Start breastfeeding within ½ hour of birth
- **Breastfeed exclusively for 6 months**
 - the infant only receives breastmilk without any additional food or drink, not even water
- Start complementary food at 6 months (180 days)
- **Continue BF up to 2 years or longer**

CONFIRMED e.g. IN WHO Infant and young child feeding.

<https://www.who.int/news-room/fact-sheets/detail/infant-and-young-child-feeding> Updated June 2021

In the past years, the evidence behind breastfeeding recommendations has evolved markedly



Breastfeeding and the risk of hospitalization for respiratory disease in infancy: a meta-analysis
 Arch Dis Child Adolesc Health 2003; 157(3):237-43
 Bachrach MS*, Schwarz E, Bachrach LG

Absence of breast-feeding is associated with the risk of type 1 diabetes: a case-control study in a population with rapidly increasing incidence.
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 Malikova H*, Sumnik Z, Drevinek P, Venhacikova J, Lebl J, Cinek O

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Chowdhury R, Sinha B, Sanjay MJ, et al. Breastfeeding and maternal health outcomes: systematic review and meta-analysis. *Acta Paediatr Suppl* 2015; **104**: 96-113.

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Promotion of breastfeeding Intervention Trial (PROBIT) Group. Effects of prolonged and exclusive breastfeeding on height, weight, adiposity, and blood pressure at age 6.5 y: evidence from a large randomized trial. *Am J Clin Nutr* 2007; **86**: 1717-21.

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Green BB et al. Suboptimal breastfeeding in the United States: outcomes and costs. *Matern Child Nutr*. 2017; **13**: e12366.

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Bisard 2003, 27:162-72.

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Breastfeeding benefits

- Child
 - Source of nutrients
 - Immunomodulation
 - Developmental origins of health
 - Regulation of gene expression
- Mother
 - Health implications



Improving breastfeeding could globally:

- **Save 820 000 children** <5 each year
- ↓ episodes
 - GE by > 54%
 - Respiratory infections by 32% (low income countries)
- ↓ hospitalizations
 - GE by 72%
 - Respiratory infections by 57%

AHRQ: BF health outcome in developed countries

	% less in BF
Acute otitis media (exclusive BF 3-6 mos.)	50%
Atopic dermatitis (exclusive BF 3 mos)	42%
GI infection (infants breastfeeding)	64%
Lower respiratory tract diseases	72%
Asthma (in young children) – no family hx, family hx	27%, 40%
Obesity	24%
Type 1 diabetes	27%
Type 2 diabetes	39%
Childhood leukemia	19%
Sudden Infant Death Syndrome	36%
Necrotizing enterocolitis	4-82%

Breastfeeding + development

- **Longer breastfeeding associated with higher performance on intelligence tests**
- **Average of 3 IQ points**, controlling for maternal IQ
 - Improved academic performance (some studies)
 - Increased adult earnings



Victora CG et al. Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. *Lancet* [Volume 387, No. 10017](#), p 475–490, 30 January 2016

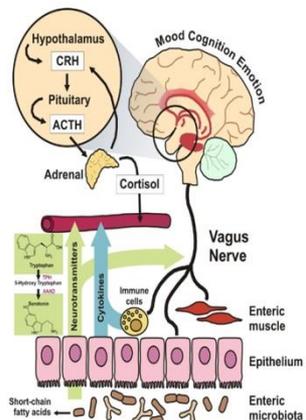
The growing knowledge of the past years has confirmed: breastfeeding is unique

- Results from **epidemiological studies** and
- Growing knowledge of the roles of
 - **epigenetics, stem cells, microbiome** and the developmental origins of health and disease

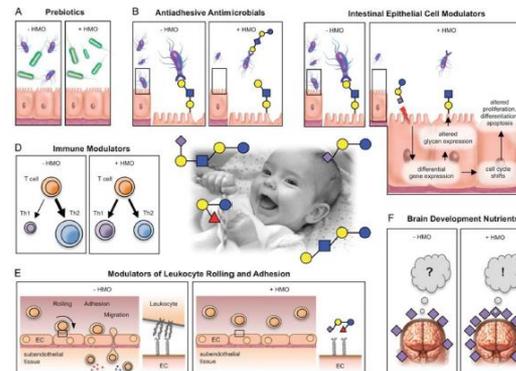
strong support to the declaration about

breastfeeding as an unequalled way of providing ideal food to the child

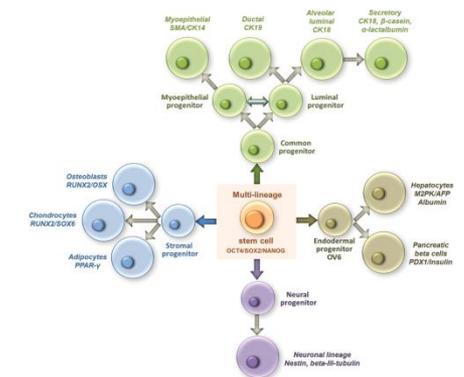
Mikrobiome



Oligosaccharides



Stem cells



BF: Maternal Health Outcomes

Developed countries

- **Breast + ovarian cancer** risk ↓ by 28% if BF >12 months
- **DM 2** ↓ by 4-12 % each year of BF (if no gestational diabetes)
- **Hypertension, hyperlipidemia, CVD** significant ↓ if BF 12 – 23 months

World

- **Current rates of BF prevent almost 20,000 deaths from breast cancer per year** (Victoria 2016)



Ecological footprint

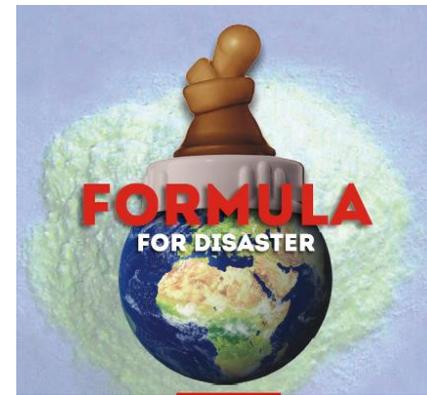
Breastmilk

- No modifications
- **The most environmentally friendly food available**

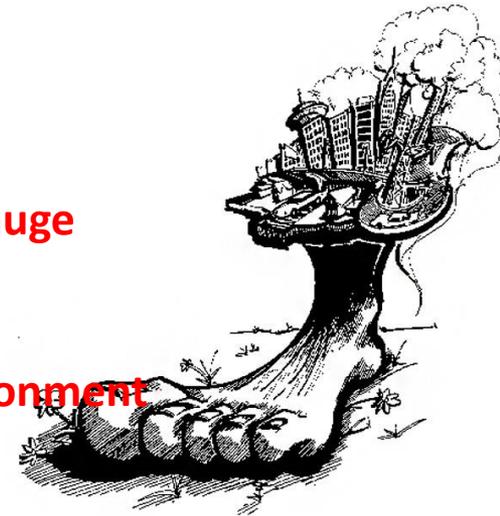


Formula

- Milk production
- Industrial processing
- Production of other components and associated products
- Packaging
- Transport
- Reconstitution, heating, cooling
- Garbage



Each phase requires huge amounts of energy - damaging, very often irreversibly, the environment



Suboptimal breastfeeding in the US: Maternal and pediatric health outcomes and costs (Model study)

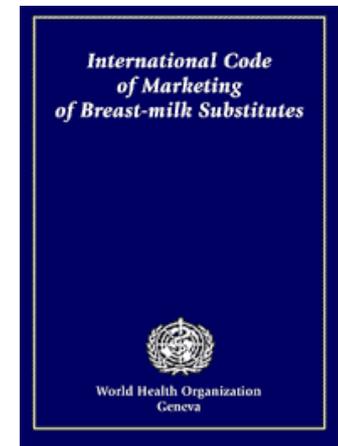
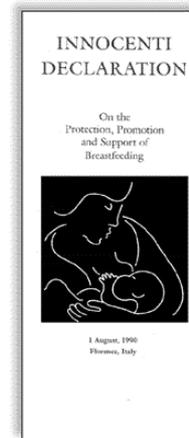
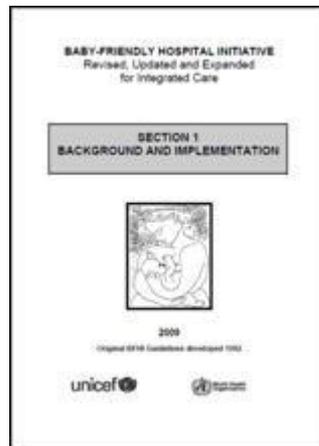
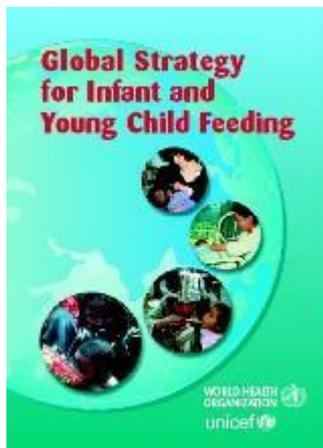


- **Annual excess deaths** attributable to suboptimal breastfeeding total 3,340:
 - 2729 (78%) **mothers** due to myocardial infarction, breast cancer, and diabetes
 - 721 children mostly due to SIDS and necrotizing enterocolitis
- **Medical costs total \$3.0 billion**
 - 79% of which are maternal
- **Costs of premature death total \$14.2 billion**

Summary

“If breastfeeding did not already exist, someone who invented it today would deserve a dual Nobel Prize in medicine and economics.”

Keith Hanson, Vice President for Human Development,
World Bank Group



- Global strategy for infant and young child feeding WHO/UNICEF – approved by WHA (2002)
- **Baby friendly hospital initiative** (BFHI) (1991)
- Innocenti Declaration (1990)
- **International code of marketing of breastmilk substitutes** (1981)

SUPPORT OF BREASTFEEDING

Baby friendly hospital initiative (BFHI)



- Launched by WHO and UNICEF in 1991 to further the protection, promotion and support of breastfeeding.
- Helps maternity facilities worldwide to adopt optimal policies and care practices for the successful start to breastfeeding, framed in the “Ten Steps”.
- Has measurable and proven impact, increasing the likelihood of babies being exclusively breastfed for the first six months.
- **BFHI in 154 of 198 countries:**
 - Ever-designated BF 27 % (21,328 of 74,286) facilities
 - Babies born in BF facilities: 29 % (Europe 36 %)

10 steps to successful breastfeeding (Update 2018)



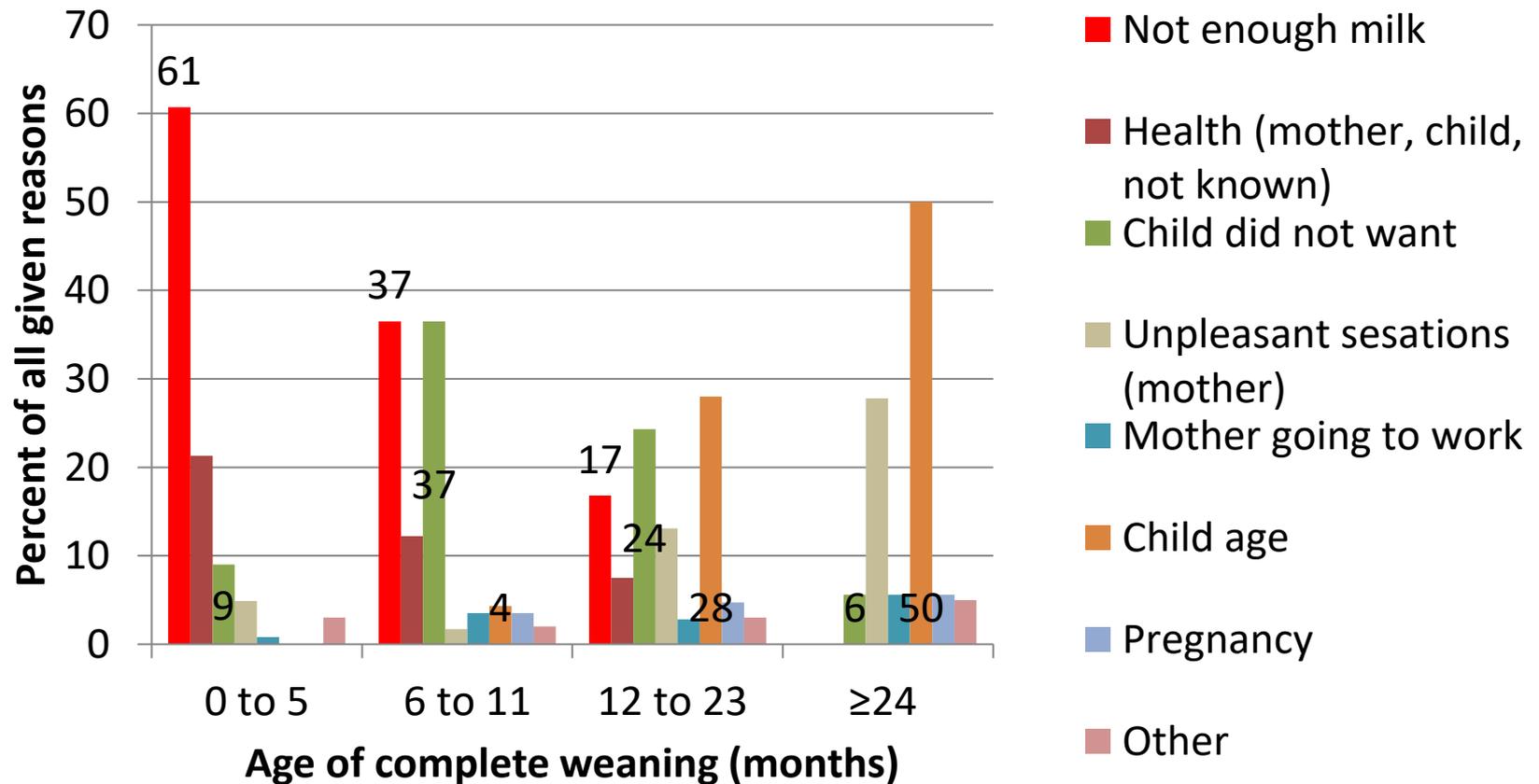
Critical management procedures

- 1a. Comply fully with the International Code of Marketing of Breast-milk Substitutes and relevant World Health Assembly (WHA) resolutions (the Code).
- 1b. Have a written infant feeding policy that is routinely communicated to staff and parents.
- 1c. Establish ongoing monitoring and data management systems.
- 2. Ensure staff has sufficient knowledge, competence and skills to support breastfeeding.

Key clinical practices

- 3. **Discuss** the importance and management of breastfeeding with pregnant women and their families.
- 4. Facilitate **immediate and uninterrupted skin-to-skin contact and support** mothers to initiate breastfeeding as soon as possible after birth.
- 5. Support mothers to initiate and maintain breastfeeding and manage common difficulties.
- 6. **Do not provide breastfed newborns any food or fluids other than breast milk**, unless medically indicated.
- 7. Enable mothers and their infants to remain together and to practise **rooming-in 24 hours a day**.
- 8. Support mothers to **recognize and respond to their infants' cues for feeding**.
- 9. **Counsel** mothers on the drawbacks of feeding bottles, teats and pacifiers.
- 10. Coordinate discharge so that parents and their infants have timely access to ongoing support and care.

Main reasons for discontinuation of breastfeeding (CR study but common)



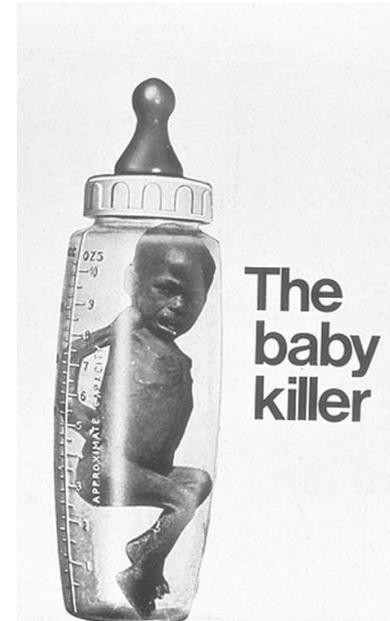
Why “not enough milk”?

- Incorrect initiation (10 steps ...)
- Wrong technique
- Displacement of breastmilk
 - Early administration of anything else than breastmilk (tea, formula, complementary food)

Bottle-feeding issues:

Hygiene!

Unwanted cessation of BF!



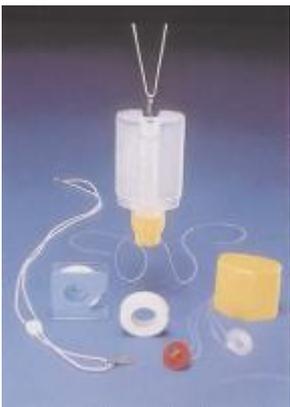
SUPPLEMENTAL FEEDING DEVICES AND TECHNIQUES



- Cup/spoon
- Syringe/eyedropper
- Beaker – Ostrava maternity – BFH for 20 years

– [kádinka2-2014-02-20-13-27-25.mp4](#) (s laskavým svolením Dr. Liškové)

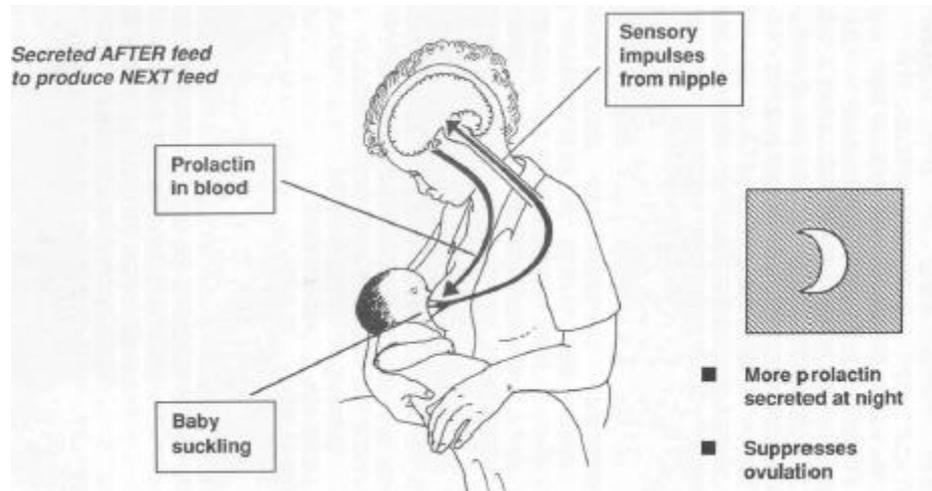
- Supplemental feeder



A glimpse at the physiology of breastfeeding

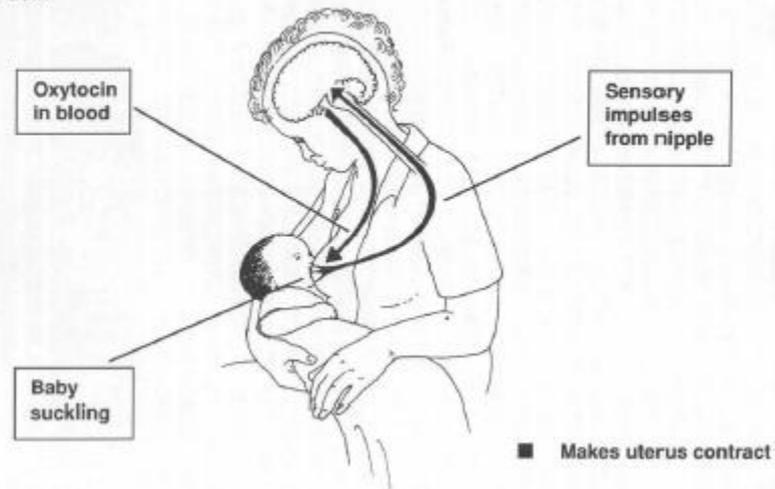


Prolactin



Oxytocin reflex

*Works BEFORE or DURING feed
to make milk FLOW*



Positioning

- [YI Teach correct posit attach.mpg](#)

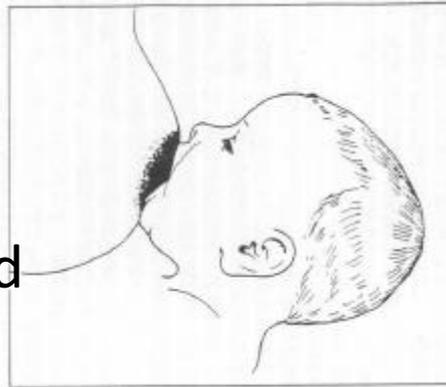


- Infant's head and body in line
- Infant approaching breast with nose opposite to the nipple
- Infant held close to the mother's body
- Infant's whole body is supported

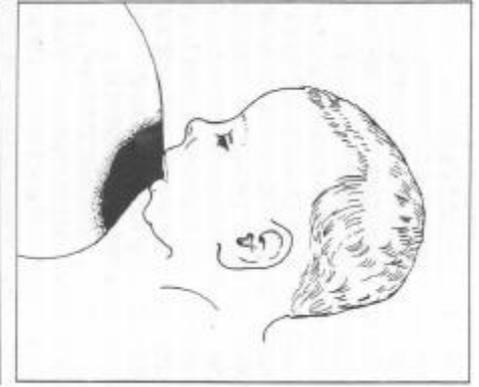
Attachment

Only if all of four signs are present, the infant is well attached.

- Chin touching breast (or very close)
- Mouth wide open
- Lower lip turned outward
- More areola visible above than below the mouth

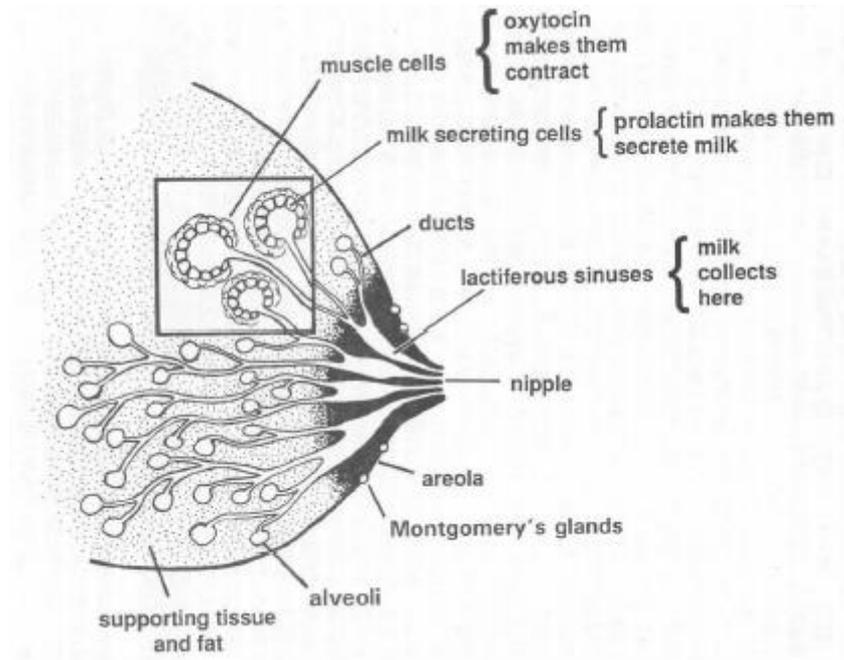


Good

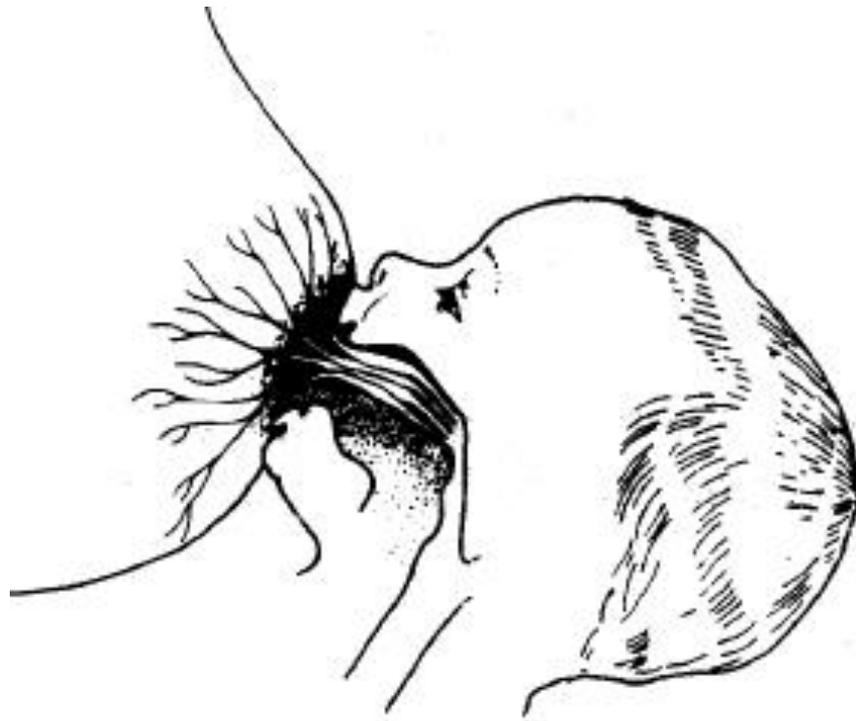


Poor

Breast structure



Attachment



Good



Poor

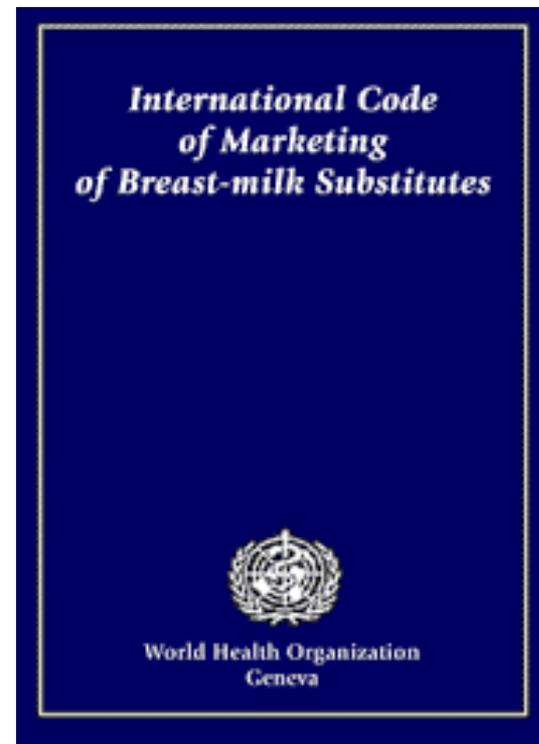
Infant and young child feeding: Complementary feeding

WHO Updated June 2021

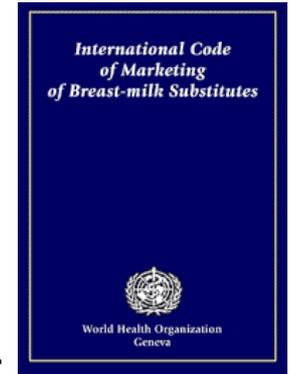
- **Frequent, on-demand breastfeeding** until 2 years of age or beyond;
- **Responsive feeding** e.g.
 - Feed infants directly and assist older children
 - Feed slowly and patiently, encourage them to eat but do not force them, talk to the child and maintain eye contact;
- **Good hygiene and proper food handling;**
- **Start at 6 months** with small amounts of food and increase gradually as the child gets older;
 - Gradually **increase food consistency and variety;**
 - **Increase the number of times that the child is fed:**
 - 2–3 meals per day for infants 6–8 months of age and
 - 3–4 meals per day for infants 9–23 months of age, with 1–2 additional snacks as required;
- Use fortified complementary foods or vitamin-mineral supplements as needed;
- During illness, increase fluid intake including more breastfeeding, and offer soft, favourite foods.

International Code of Marketing of Breast-milk Substitutes (BMS)

- Adopted by World Health Assembly in 1981
- Aims
 - to protect and promote breastfeeding,
 - ensure proper use of BMS when needed



International Code of marketing of breastmilk substitutes

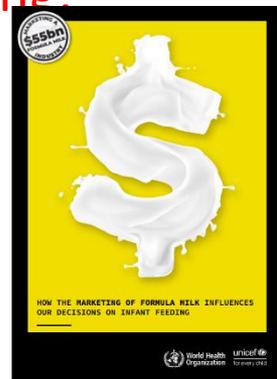


- Bans
 - advertisements
 - free samples to mothers & health workers
 - promotion in health facilities
- No financial or material inducements to promote products should be
 - Offered to/accepted by health workers or members of their families

Reality - WHO report 2022: Aggressive marketing of milk formula

- Targeted **unregulated and invasive promotion** online and offline
 - sponsored counseling networks and helplines
 - promotions and free gifts
- Health professionals approached by manufacturers to influence their recommendations to mothers
 - promotional **gifts, free samples, research funding, paid events, conferences, sales commissions**
 - directly impacting parents' feeding choices
- **Information** to parents and health professionals often **misleading, unscientifically based** and in breach of the Code
- Worldwide, only 44% of children <6 months are exclusively breastfed. **Last 20 years**: breastfeeding increased very little - **formula sales increased >2x**

How the marketing of formula milk influences our decisions on infant feeding. Geneva: WHO/UNICEF, 2022





'Buy only 1 can and you will get 2 free t-shirts, baby wipes and a 10% discount card.'



Chheangyi Kry added 3 new photos — with Monika Yin and 17 others.
June 7, 2015

Booth promotion for Bibere GOLD 3. Buy only 1 can will get 2 free of T-shirt and baby wipe and get a discount card 10%
Location at: Siem Reap province
For more info: 0913813813
Bibere product of New Zealand

**COMMERCIAL
MALNUTRITION**

Thanks!

