Lactation & Breastfeeding

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Photo: Field exchange 48

EDITORIAL

Dear members, dear readers,

Breastfeeding consultation has many facets – some of them will be broached in this issue of Laktation und Stillen. For several months now we observe with great concern the situation especially of young mothers, babies and infants being on the run. Breastfeeding is one opportunity to feed a child securely under adverse circumstances. A colleague from Greece reports on her important work in a refugee camp. Inconsiderate donations and the use of formula, bottles or pacifiers can boost malnutrition, diseases and death among the disaster-affected children. Use our handout to inform cooperative organisations and individuals about this and to show possible solutions for difficult situations. We wonder – who at all offers breastfeeding consultation, which requirements must consultants meet and which forms of training exist? And finally, what does the situation of professional and voluntary breastfeeding consultation and support Europe-wide look like. Dr. Magdalene Stosik informs us about the problem of feeding infants with breast milk who suffer from chylothorax. She informs in her report about how special fat-free nutrition could be replaced by skimmed breast milk and thus the child that suffers from heart conditions can benefit from antibodies and many more ingredients of breast milk. Epigenetics is an interesting and relatively new field of study. Márta Guóth Gumberger illustrates that even in the field of breastfeeding consultation it is very important to read and interpret studies critically. ELACTA congress in Athens is approaching rapidly. In this issue we introduce some of the abstracts of the main congress. **Please register soon.**

Andrea Hemmelmayr, IBCLC
President of ELACTA

COVERPHOTO

A Syrian refugee mother breastfeeds her baby successfully after having received individual breastfeeding counselling by an IOCC lactation consultant.

Photo: Field exchange 48

IMPRINT

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Letters to the editor
Dear readers! We want to know what you think. Please send your letters and comments to the following email address:
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Photo: Kalli Malamatou


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Does the Use of Nipple Shields Influence Breastfeeding Duration?

Analysis of the Austrian study "Infant Feeding Today, 2006" Dr. Beate Pietschnig for "Österreichische Stillkommission des Obersten Sanitätsrates", (2004–2010); translation Elizabeth Hormann, IBCLC

ABSTRACT:

Background
Nipple shields are frequently recommended at the beginning of breastfeeding to help mothers with sore nipples and with nipples with anomalies. Nipple shields are intended to enable mothers to breastfeed, although the data is very contradictory. The goal of the study was to examine the effects of nipple shields on breastfeeding duration.

Material and Methods
Data on the use of nipple shields in correlation to breastfeeding duration and the infant's weight gain was collected and analyzed in the context of the study "Infant Feeding Today – 2006"

719 mothers of 728 children from all over Austria were gotten viewed three, six and 12 months after birth. 25 % of the 719 mothers were given a nipple shield postpartum, 52.7 % of them due to painful nipples.

Results
Infants who were breastfed with nipple shields at the beginning showed significantly shorter times of exclusive and partial breastfeeding. The weight gain patterns of the children did not show any significant differences.

Conclusion
The results show that nipple shields negatively influence the duration of breastfeeding. Thus, the uncritical and unsupported use of nipple shields is not recommended.

Keywords:
- breastfeeding
- breastfeeding counselling
- nipple shields
- breastfeeding duration

Exclusive breastfeeding for approximately the first six months of the infant's life is nationally and internationally recommended.[1, 2, 3, 4, 5] as breastfeeding is amongst the most effective health-promoting measures in the health care system [6]

The use of nipple shields is recommended for treatment or prevention of pain and sore nipples and to ease attachment. Especially in anatomical variations (such as inverted or flat nipples) , nipple shields can enable breastfeeding at all On the other hand, nipple shields can lead to breastfeeding problems.

Breastfeeding counsellors report that mothers are often given nipple shields in the first few days in hospital unreflected and without detailed information. In the related literature, there is little and very contradictory information on the benefits and risks of nipple shields. Although there are absolute (inverted nipples) and relative indications (i.e. flat nipples and, sometimes, premature babies) for the use of nipple shields, practice shows that nipple shields are also often recommended without specific indications. Consequences of the (unreflected) use of nipple shields include earlier supplementation and weaning of the baby.

To evaluatethe outcome of early nipple shield use, the survey "Infant feeding Today 2006", was conducted to evaluate the use of nipple shields in the initial days of life. The survey was conducted on behalf of the Austrian Federal Ministry of Health and the Austrian Breastfeeding Committee,

Methods
In the Austrian study, "Infant Feeding 2006", two topics were evaluated : the structure of in – hospital care in the ob-

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First of all I'd like to thank for the well comprehensible evaluation of the data of "Säuglingsernährung heute, 2006 [infant nutrition today, 2006]" with regard to the use of nipple shields (Laktation & Stillen, 2015/4, pp.20-24). It put important results forth regarding frequency of use of nipple shields and the dependent breastfeeding duration.

I really wish we would have similar surveys in Germany. At the same time I'd like to sound a note of caution: Though the data clearly shows that the use of nipple shields is **associated** with a shortened breastfeeding duration, but a mere association doesn't tell anything about a causal relation. That means this data cannot be used to explain a shorter breastfeeding duration by the use of nipple shields. The two study groups (with and without nipple shields) differ as well in other features that affect the use of nipple shields. As a reason for the use of nipple shields, beside pain the survey in particular showed special nipple anatomy (small, inverted and retracted nipples) and sucking problems of the child (Bundesministerium für Gesundheit [Federal Ministry of Health], Säuglingsernährung heute [infant nutrition today], 2006; Abstracts p.25). Thus it can be assumed that some women use nipple shields, BECAUSE breastfeeding would not have been possible without nipple shields. The shorter breastfeeding duration might consequently have been caused by the underlying problems and not by the nipple shields. The breastfeeding duration might possibly have been even shorter in this subgroup without the use of nipple shields – in these cases the nipple shields would have extended and not reduced the breastfeeding duration. Thus a causality cannot be found in the available data. I personally think we need to be careful with this, as it might lead to false conclusions being drawn. Besides, even the case study in figure 3 (p.23) in which the course of an infant's body weight before and after the removal of the nipple shield is depicted, needs to be interpreted with great caution. Though the figure shows in an impressive way that the baby that hadn't gained weight rapidly puts on weight after the removal of the nipple shield, but because of missing monitoring no conclusions can be drawn from this data as well. In theory it might be possible that the baby could have gained weight under the use of the nipple shield, or that it could have been weaned some days after the removal of the nipple shield. Or maybe the improved weight gain had nothing to do with the removal of the nipple shield, but it was due to the professional breastfeeding consultation. It is not possible to reason that the removal of the nipple shield was causal for the improved weight gain. AND: There are of course many case studies in which the baby puts on weight in a exemplary manner whilst using nipple shield. In order to identify causal associations, experimental study designs with accurate monitoring for possible parameters are best choice. For our issue – i.e. impact of nipple shields on breastfeeding duration – e.g. two groups of women with possibly the same features should be taken (e.g. 100 women with defined nipple anatomy on the basis of precisely defined criteria and in other respects identical features regarding age, education, birth mode, week of pregnancy etc.). The first group (intervention group) would receive nipple shields and the other (control group) would get none. Apart from that the dealing with the two groups of women should be strictly identical. A randomisation helps to deactivate the disturbing factor of "selection" and to keep other determining factors constant. Such an experimental design would allow to analyse the impact of nipple shields on breastfeeding duration, at least for the defined target group. In breastfeeding research experimental studies are seldom conducted due to ethical reasons. However, regarding this issue I can very well imagine a positive ethics committee vote. If an experimental design is unfeasible, assumed determining factors are being accurately monitored with surveyed ones and by means of multivariate analysis methods. Though multivariate analysis has been conducted in the available Austrian study, no parameters that would have been necessary for our issue (nipple anatomy, sucking anomalies etc.) were included. Irrespective of the causality, the results of this data analysis show that the risk of early weaning is higher with nipple shields. Thus I consider the conclusion that especially this group needs professional consultation and support as definitely justified.

Dr. phil. Zsuzsa Bauer

Promoting Breastfeeding With Refugees in Greece

Moving encounters - a report of a Greek LLL Leader. Author: Kalli Malamatou, La Leche League Leader, Greece

Maria Fertaki, IBCLC and LLL Leader, supports refugees (here Afghan Hill in Lesbos), Greece

The refugees have come so close to my house. Twice a week, a boat from the islands of Samos and Lesvos brings about 1000-1800 refugees to the city of Kavala. They stay for 4-5 hours until they take a bus to Eidomeni, a border in the north of Greece. I found out that among them, there are hundreds of infants, toddlers and children, as well as a few pregnant women.

I sent a message to the Volunteer Group of Kavala and informed them that I am a La Leche League Leader, willing to help and that I could offer information and support to pregnant and breastfeeding women. My proposal was accepted, telling me that any help was welcome.

With the help of other La Leche League Leaders, we prepared leaflets in Arabic and English to distribute. I was so anxious the first time I went there. I didn't know what to expect. I wondered again and again: "Will I be able to help at least one mother? Will I be able to inform even one pregnant woman? How will I manage to communicate? Will anyone speak English? Will I find an interpreter? I won't have a lot of time".

The first time I went there I was overwhelmed. My thoughts and the images I saw, of so many people, so many babies and children cuddled by their parents, made me unable to cope with the task I wished to perform. I immediately understood that their basic needs for food, clothes and shoes were so urgent, that I should better work at the distribution post of these goods which had been previously gathered. I made sure to be at the chil- ›


Photos: Kalli Malamatou

dren's distribution post, so that I could contact as many mothers as possible.

Since then, every time I visit the refugees in Kavala, (which happens almost every time a new boat arrives), alongside to the distribution, I approach mothers of infants and toddlers asking them in English or nodding whether they breastfeed and if they need any help. Those who know English tell me "no" or "yes, but I don't need any help, everything is all right" and so do the others who don't speak English. However, I offer them the leaflets and they accept them willingly.

What I have understood is that although breastfeeding is common in their culture, they hesitate to speak about it. They hesitate to use the words "breastfeeding" or "breast" especially if a man is present. When I realized this, I thought that it would be more effective to find a woman from their culture to help me. So I started to hand leaflets in English to all young women who could read it. I explained to them the importance of breastfeeding in emergencies and when families are in transit, and I asked them to read the texts carefully and pass these information on to all pregnant or breastfeeding women they meet. I asked them to inform these women that LLLI, UNICEF and other Organizations declare that breastfeeding is not only the best, but a crucial need for the baby under those circumstances. All of them listened carefully and reassured me that they were willing to help and inform as many mothers as possible.

Their families have many members and men act in a very protective manner towards their wives and spend a lot of time with their children. During

Infant Nutrition During Acute Crisis Situations

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Acute crisis situations and wars occur disproportionately often in economically poor countries. Furthermore, there are currently an estimated 60 million refugees and displaced persons worldwide. All of these people need water, food, shelter and medical care.

During crisis situations, it is especially infants and young children who are at risk of malnourishment, disease and death. In the face of this obvious suffering and thanks to numerous old wives' tales, in no time, there are donations and widespread distribution of artificial baby food, bottles and pacifiers. During acute crisis situations, breast milk is often the only secure source of nutrition available for the baby. If the nursing mother receives sufficient support, the whole family benefits from it. If formula is also given, breast milk supply is reduced and the risk for the baby increases. Irregular distribution of infant food, inadequate hygienic conditions during preparation, as well as lack of information on the use of breast milk substitutes increase malnutrition, favour the occurrence of diseases and increase infant mortality.

Are women able to breastfeed while suffering from stress?

The let-down reflex might temporarily be affected by stress. Milk supply will not be affected solely through stress. Frequent latching on will stimulate the release of oxytocin – the hormone responsible for the let-down reflex – and oxytocin also reduces hormonal stress reactions in the mother.

Do malnourished women produce sufficient milk?

Usually it is the mother and not the child who suffers from any deficiencies. For the mother, it is important to offer food – in order that her own health and energy are not compromised by malnutrition. Only extremely malnourished mothers – just about 1 % of these women – might experience a decreased milk supply.

What if the mother has already weaned?

With frequent stimulation and support, women can be enabled to increase a milk supply that has declined or even restart milk production when it has stopped. Stimulation by a baby who sucks well or through hand expression or pumping of milk is essential. The procedure can take some days or weeks and the mother needs encouragement, support, food and, as far as possible, protection against stress. To ensure that the baby gets enough calories and fluids during this phase, monitoring of the babies is very important, It might be necessary to supplement the mother's milk with donated human milk and/or formula until the mother's own supply increases. (See section on safe preparation of formula)

Avoid...

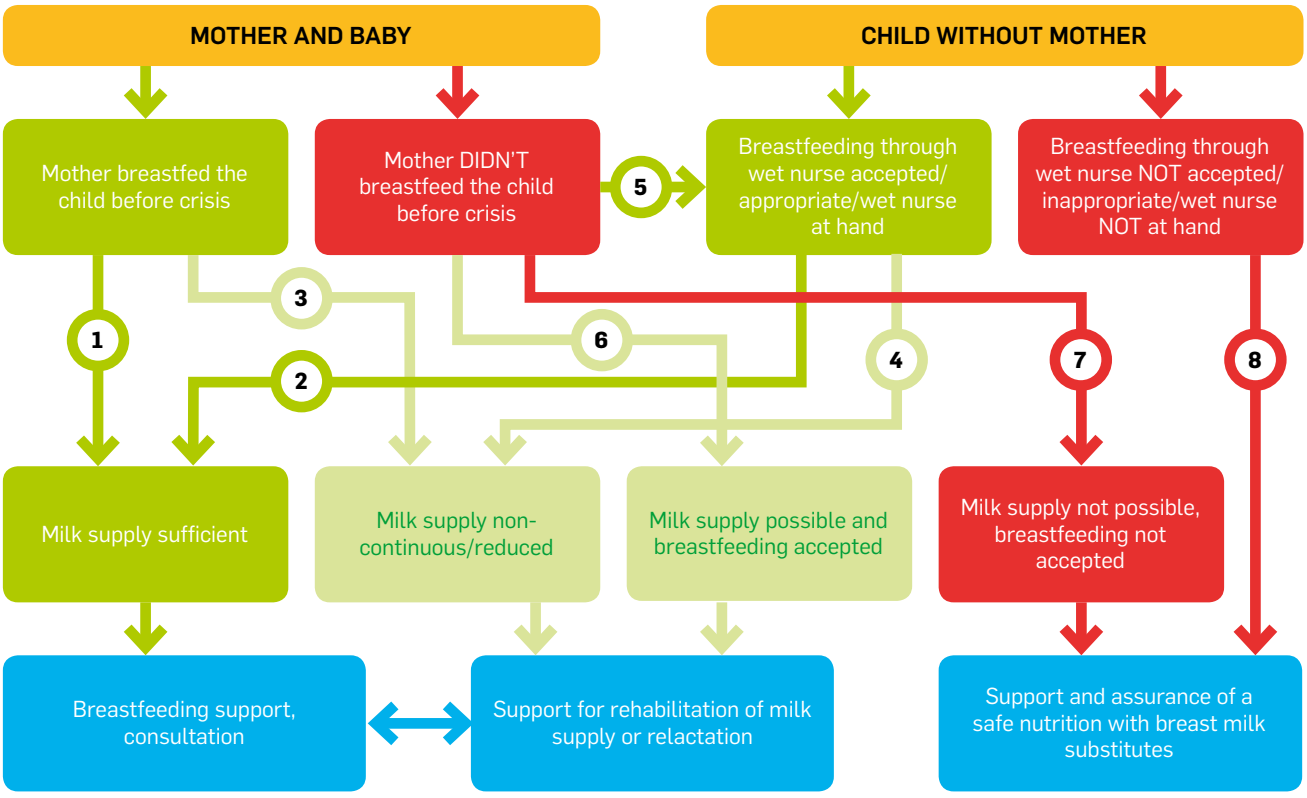
- Donation of breast milk substitutes, baby bottles and pacifiers
- Giving these items to families who did not ask for them
- Distributing these products together with the general food distribution.
- Handing out breast milk substitutes without follow-up and without having instructed the carer on their use.
- Giving out sample packages of infant formula.
- Supporting the use of bottles and pacifiers (high risk of contamination and difficult to clean).
- Distributing milk powder as an individual product.
- Using products that are labelled in foreign languages and do not meet the International Code of Marketing of Breast Milk Substitutes.*
- Practices that restrain breastfeeding, relactation, breastfeeding by wet nurses or the use of breast milk from a donor mother.
- Standing by while breast milk substitutes, bottles or pacifiers are being donated.

* The International Code of Marketing of Breast Milk Substitutes as well as subsequent resolutions are intended to guarantee the safe nutrition of infants and young children, via breastfeeding protection and support and through narrow scope of permitted marketing for infant formula, bottles, pacifiers, and other fluids and foodstuff intended to replace breastfeeding.

What you should do...

- Purchase required infant food locally via normal commercial channels
- Store unsolicited donations until UNICEF, together with a coordination unit and the government, have developed a plan for the safe use of these products.
- Ensure that a qualified health or nutrition consultant, with particular competence in the field of breastfeeding and infant nutrition, distributes breast milk substitutes targeted only to those infants who need them
- Ensure that the child's carer has one-to-one instruction on the safe preparation of infant food.
- Carry out regular check-ups including regular weight controls
- If infant formula is being distributed, ensure that the required amount is regularly made available as long as those children who are dependent on it need it.
- Support the use of cups for feeding infant formula and advise against the use of bottles and pacifiers.
- If powdered milk is being provided unsolicited, it should be mixed with the typical local cereal products so that it cannot be used as a breast milk substitute.
- Choose those brands with labelling written in a language that can be understood by the users and the labels of which are in accordance with the requirements of the International Code of Marketing of Breast Milk Substitutes.
- Actively stop donations of infant formula: send a message to the media, agencies, relevant ministries, WHO and UNICEF.
- Share this publication.
- Provide the means for breastfeeding support programmes.

Nutrition of infants younger than 6 months in case of emergency: a triage approach for decision-making



IBCLC

International Board Certified Lactation Consultants (IBCLC) are – worldwide - the only officially recognised specialists in breastfeeding and lactation with medical backgrounds.

The decision "to breastfeed" or "not to breastfeed" has short and long-term impacts on the health of both the child and the mother. However, breastfeeding is not always easy and might require professional, competent support.

Contact your IBCLC

› their stay in Kavala fathers hug their children, play with them and kiss them.

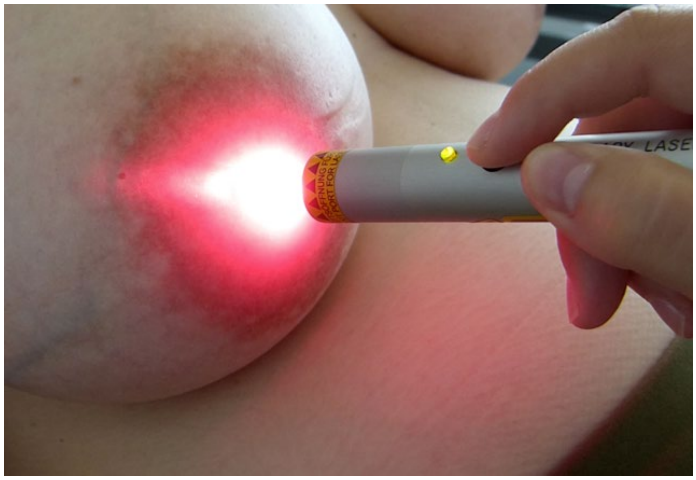
These days have changed my life. When the refugees tell us a thousand times "thank you" and "you offer us so much", we answer – and we do mean it – that weget even more in return: lessons about life, behavior, dignity, lessons about love and attachment, lessons about courage, strength and hope. My mind is full of images that will accompany me throughout my whole life. Images of their smiles, their kindness, their serenity and gratefulness. When the time comes to say goodbye, I tell them good luck in English while whispering the same words in Greek ("kali tychi") feeling that my wish will last longer. I wish for them to have peace in their country, to be able to return to their homes, to meet those who were left behind, to sleep again in their own beds. I wish for their children to be able to play again with the toys they left in their own bedrooms. I also desire that one of the promises a Syrian father gave us will come true; "When we return home, we will dance and our first dance will be dedicated to the Greek people"...

Kalli Malamatou
La Leche League Leader,
Greece

Laser Treatment for a Sore Nipple

Experiences with low-level laser in ambulatory breastfeeding counselling

Author: Ursula Schürch, midwife, lactation consultant IBCLC, hubamme@swissonline.ch | Translation: Elizabeth Horman, IBCLC



A case from the practice

A 36 year old mother comes to me for a consultation because of pain in the left nipple. It is a hot summer day. The salve, which she got in a previous breastfeeding consultation, does not ease her pain. The use of the laser can be easily depicted based on this patient. During the examination of her breast, I find the typical picture of an inverted nipple, which does not show any external signs of injury or infection (Figure 1). In one swift movement of her hand, the mother pulls the nipple out and shows me several deep abrasions and softened areas of skin (Figure 2). Apparently, the damp milieu has increasingly worsened what was originally a small skin wound. No wonder she has had pain and it has taken great effort to breastfeed her three-week old baby! The diagnosis is clear: a sore inverted nipple. Treatment includes – first and foremost – good breastfeeding management with a set of different nursing measures – in this case, also laser therapy. I stop the salve and use the breastfeeding donut to allow the nipple to air dry. Over a period of eight days, the nipple is "lasered" four times. The result is impressive. The woman is free of pain, the wound area mostly healed and breastfeeding is functioning without problems.

In retrospect, this mother - after initial skepticism – appreciates the simple and effective laser treatment.

Safety first

As effective and satisfying as the use of the laser is, observing safety measures is just as important. The laser is neither a child's toy nor a harmless wonder cure: The device and the treatment should be in the hands of an experienced breastfeeding counsellor.

The use of laser therapy and the relevant competency are legally regulated. The laser user must be familiar with the appropriate conditions for the possible applications of her device. In Switzerland, one can earn the title of a "laser protective representative" in a one-day course. With this, a hospital or the breastfeeding counsellor in ambulatory care, is authorized to use the laser for medical purposes. In Switzerland, these courses are offered by, for example, the producers of the laser devices.

Similarly to the use of medication or of radiation, the patients must be protected from damaging effects. Above all, the laser beams could be harmful to the eyes with improper use of the device. The press reports repeatedly on malicious attacks on football players, pilots or police using or-

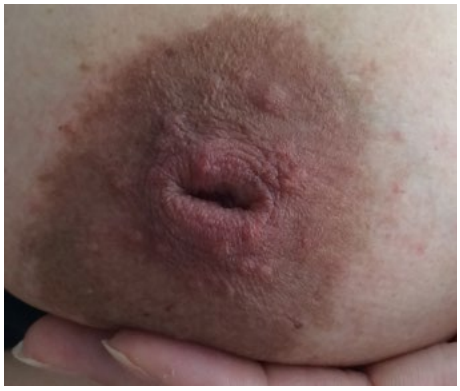


Fig.1: Inverted nipple

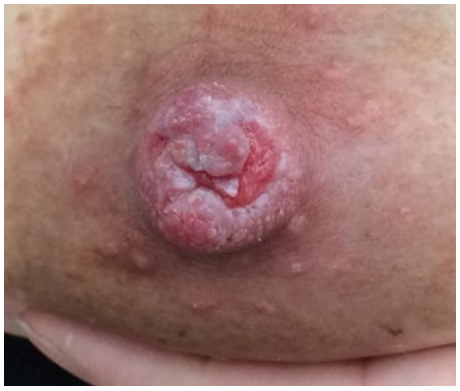


Fig.2: Abrasions and softened skin

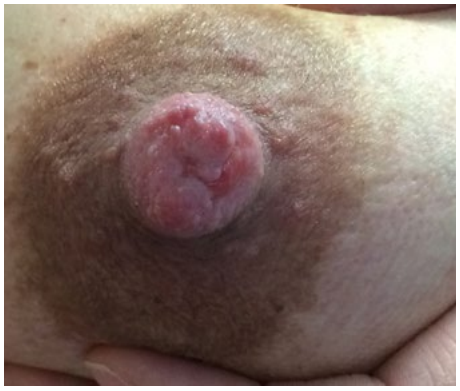


Fig.3: After four treatments

dinary laser, with corresponding damage. Since the devices used therapeutically, with a power output between 30 and 150 megawatts, belong to a higher category of device (according to DIN EN in category 3B), their potential damaging effect due to improper handling is correspondingly greater. After a quarter of a second, the eye protects itself against accidental irradiation by blinking. However, with strong and on-going exposure, it can cause temporary blindness, pain or a permanent malfunction of part of the visual field. In practice, it is advisable that all of the people not involved – including the infant! – leave the treatment room. It is essential that special protective glasses aligned to the device be used (Figure 3). Also, contact by the laser with the endocrine glands, such as the thyroid gland, the testicles and the child's fontanel, should be avoided. The indication for laser therapy should be cautiously considered. With a fungal infection, for example, while the laser cannot cause any damage, here it only makes sense as a supplement to targeted antimycotic therapy. Generally speaking, it is – as presented in the introductory case report – optimal if the entire palate of therapeutic and care measures is available.

Organizational and financial aspects

As with the safety measures, the organizational and financial conditions should not be underestimated.

Therefore, careful time management for the consultation in the day-to-day work of the hospital and in ambulatory postpartum care is necessary. In my experience, 15 to 20 minutes per session must be planned for the discussion, clarification, preparation and documentation, whereby the laser treatment of each nipple lasts only a few minutes. Thereby, the technical data of the device used and the size of the sore area play the most important roles. Devices of the necessary quality are available in Switzerland from 3500 Francs upwards. A higher performance laser (less time per treatment) is available for around 5500 Francs. Every two years, it is required that the device be serviced.

Unfortunately, there is no possibility to bill the health insurance specifically for laser therapy in a breastfeeding consultation (by contrast to ophthalmologists and gynecologists, who also work with laser technology). My professional environment is a public, mid-sized hospital with breastfeeding counselling in the in-patient area and an out-patient breastfeeding clinic. Here, medically necessary laser therapy is included in an in-patient stay. This is also the case in the ambulatory area, whereby the health insurance companies have limited their willingness to take over the costs to three consultations. Some ambula-

Fig.4: Laser device and protective goggles

›

tory breastfeeding clinics have gone another way. They offer the laser treatment separately and bill the women directly for each appointment.

Effects and possibilities for use

In breastfeeding counselling, the primary indications are infected or bleeding nipples and mastitis. Here, healing can be hastened and promoted with the laser. The laser therapy:

- promotes blood flow
- inhibits inflammatory processes
- hastens wound healing
- helps swelling subside
- fights infection
- and serves as an analgesic

Treatment is carried out once or twice daily. It can be used for a duration of one or more weeks. In the case report presented at the beginning of this article, there were four sessions within eight days. As preparation, the treatment area is swabbed to remove the remainder of the salve. After the treatment, no further measures are needed. The baby can be put to breast right away.

Experience with the laser

The essential element for the breastfeeding counsellor is the discussion with the woman and guidance on correct attachment. If she is experienced, there are, in addition various other valuable aids. In the last fourteen years, the laser has become such an instrument for me. The mother mentioned in the introduction was happy that, with her third child, she was able to have a pain-free and beautiful breastfeeding experience. In general, the treatment is well accepted and not infrequently, the request to have a repeat of the laser treatment comes from the women themselves.

Ursula Schürch
Registered nurse, midwife, lactation consultant IBCLC
Works as a freelancer during outpatient puerperium and for breastfeeding counselling for many years
One of the breastfeeding counsellors at the Cantonal Hospital in Zug (Switzerland) for the past three years
Lactation consultant for children with cleft lip and cleft palate at the unit for maxillofacial surgery of the Cantonal Hospital in Luzern (Switzerland)

"Who is Who"

IBCLC – International Board Certified Lactation Consultant.

- **Accreditation:**
  The IBCLC is the only internationally recognized professional qualification for breastfeeding counselling and is awarded after an international exam (given by IBLCE)
- **Who can become an IBCLC?**
  Persons who have completed training in a health-related profession. In certain cases, taking particular courses with scientific/medical content may replace the actual basic health-related profession. See: http://iblce.org/certify/pathways/
- **What qualifications must these persons have?**
  The candidates for the IBCLE exam must be able to document clinical experience in breastfeeding (normally 1,000 hours) before the exam and, in the last five years before the exam, they must have had at least 90 hours of training or continuing education.
- **Continuing Education and Recertification:**
  Recertification must be applied for every five years. Five years after the exam this can be through continuing education points, which, in addition to lactation, must also cover the topic of ethics. The exam must be repeated after 10 years, at the latest. Recertification takes place under the auspices of IBLCE. IBLCE is not involved in the training.
- **Where can IBCLCs be found?**
  IBCLCs work in the health care system (hospitals, NICUs, counselling centers...) in private practice, in scientific settings or in politics.
- **Range of responsibilities:**
  All matters related to breastfeeding, also in complex situations, with high-risk babies, babies with clefts etc., - all issues of breastfeeding promotion.

Other recognized professional education

Not all offerings Europe-wide, can be reviewed within this framework. There are, to some extent, considerable differences. Here we will try to offer a general overview.

- **Accreditation:**
  In individual European countries, there are various forms of education or training for medical or non-medical personnel which conclude with a certificate
- **Who can acquire such a certificate?**
  Depending on the description of these programs, they address medical or non-medical personnel

in Breastfeeding Counselling?

Photo: Fischertehner

- **What prerequisites must these persons have?**
  An interest in breastfeeding. The duration is between ca. 40 to 100 hours.
- **Continuing education and recertification:**
  Mostly, the certificate can be retained, with documentation of continuing education hours, for a period of two to five years. Recertification is given by the educational institute.
- **Where can such breastfeeding counsellors be found?**
  Depending on the training, in medical or private areas, in or outside of the hospital.
- **Tasks:**
  Depending on the profile of the training, from basic counselling to complex counselling.

Voluntary Breastfeeding Counsellors:

- **Accreditation:**
  Depending on the organization, national or international accreditation will be awarded after successful training.
- **Who can be a voluntary breastfeeding counsellor?**
  Normally, mothers who, themselves, have breastfed
- **What prerequisites must these persons have?**
  Depending on the organization, women must have breastfed for a certain amount of time and should have attended a breastfeeding support group.
- **Continuing education and recertification:**
  The organizations offer family-oriented training. Continuing education is expected.
- **Where can voluntary breastfeeding counsellors be found?**
  Breastfeeding support groups, telephone counselling. Countless voluntary breastfeeding counsellors are engaged in work with refugees
- **Scope of functions:**
  Breastfeeding support groups, telephone counselling, mother-to-mother counselling

Other professional groups which counsel breastfeeding women in the course of their work:

Midwives, (children's) nurses, gynecologists, pediatricians, GPs, nutritionists, psychologists, pharmacists

- **Training and continuing education:**
  During midwifery training, basic information about breastfeeding management and lactation is normally taught. With other professional groups, teaching content on breastfeeding is not obligatory.

Andrea Hemmelmayr,
IBCLC, President of ELACTA

Breastfeeding in Infants Suffering from Chylothorax

Dr. Magdalene Stosik

A chylothorax is a type of pleural effusion, resulting from fatty lymph fluid formed in the digestive system called chyle accumulating in the pleural cavity. One of the main causes of chylothorax in infants is disruption of thoracic duct after cardiac surgery, as well as birth injuries or vascular malformations may be causal. In order to stop chyle flow and to remove the threatening effusion, diet needs to be cleared from fatty acids over several weeks or even months. Consequently, infants mustn't receive breast milk and instead receive either total parenteral or enteral special fat-free nutrition. Thus, nowadays chylothorax is one of a few real contraindications for breastfeeding.

However, abstaining from breast milk inevitably involves loss of immunological effective and protective components [1], contained in breast milk: Antibodies, lysozyme, neuregulin-4, lactoferrin etc. Leading infants to being not optimally protected against gastrointestinal infections, necrotising enterocolitis and many more diseases, in such a critical period after cardiac surgery. The infant's organs (kidney, intestine) are additionally burdened because of formula. This is why recently more and more clinics worldwide - especially in the USA - pass on to feeding skimmed breast milk instead of special fat-free nutrition.

Fat-free breast milk can be produced via centrifugation, fat reduced breast milk is produced by placing the milk in the refrigerator and leaving it undisturbed awaiting spontaneous separation of the fat fraction and the skimmed portion. In the literature are several descriptions of successful usages of centrifuged breast milk [2, 3, 4] and of centrifugation protocol [2, 5] - unfortunately data on the resulting remaining fat content vary considerably. The method of naturally separated breast milk was described in specialist publications, too - however, without specification on residual fat [6, 7]. Common special nutrition in Germany (basic -f) contains less than 0,1 % fat.

In order to specify the expected fat content, I tested different protocols regarding preparation of fat-free breast milk and compared them. Fat contents were defined via infrared spectometry [8]. By using centrifugation (at least at 2500 rcf for 15 min; which accounts for app. 3000-3500rpm depending on the centrifuge) breast milk can be separated in two components: the fat fraction and the transparent, fluid skimmed portion. The skimmed breast milk can be removed with a feeding tube attached to a syringe, leaving the fat behind. The skimmed milk contains as much protein and lactose as normal breast milk, but fat content is less than 0.1 %. As the immunological protective components of breast milk are contained in proteins, it can be assumed that they are largely preserved during the procedure. Consequently, infants suffering from chylothorax may receive this kind of prepared breast milk. In doing so, it is essential to supplement the fat-free milk (e.g. using medium-chain fatty acids, like MCT oil or possibly Maltodextrin) in order to compensate for the loss of calories due to skimming (app. 50 %). In long-term treatment the necessary fat-soluble vitamins and essential fatty acids should be added. It is essential that in this case a centrifuge only for breast milk is needed; no other samples (blood etc.) should be centrifuged in it. The centrifuge needn't be equipped with a cooling function, simple models for about 1,000 EUR are perfectly adequate. Right after centrifugation the fat-free breast milk can be stored in the freezer.

If there is no centrifuge available (e.g. because the clinic doesn't own a suitable

Fig. 1: Natural separation of breast milk in two components

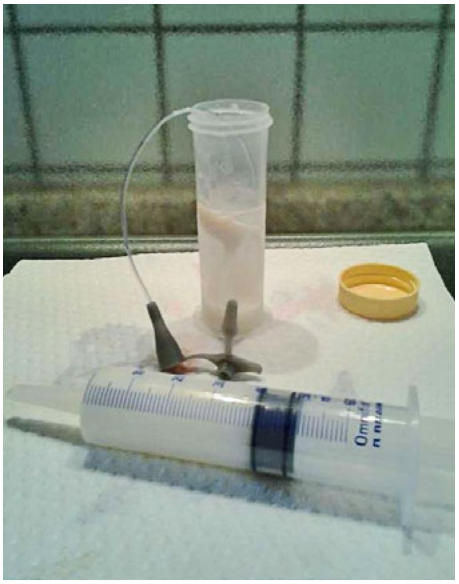


Fig. 2: here the fat reduced portion has been removed by a syringe and feeding tube

device or the baby is already at home) it is possible to separate breast milk naturally by refrigeration. For this, breast milk is filled in the common bottles and remains undisturbed in the refrigerator for 3 days (not in the refrigerator door!). After that the fat reduced portion is extracted with a syringe and feeding tube, as described above. In a test with voluntary test subjects who performed this procedure on their own, the fat reduced portion contained in all cases less than 1 % residual fat, on average less than 0.5 % [8]; this accounts for approximately one tenth of breast milk's usual fat content. Thus, this simple process can easily be adapted from mothers completing it at home. The gathered breast milk is not exactly fat-free, but highly fat reduced. Here again the supplementation of MCT fat etc. needs to be adequate. As an alternative to storing the milk in bottles the freshly expressed breast milk can also be drawn in 60-mL syringe pumps sealed at the bottom. The syringes are placed upright in the refrigerator with the tip down in a cup – afterwards the skimmed milk can easily be removed by pushing on the plunger. In order to gain skimmed breast milk without using centrifuge, freshly expressed milk should be used, as it keeps being fresh up until 3 to 5 days in the refrigerator [9] – consequently skimmed breast milk that is produced after 3 days should be fed promptly. If milk has already been frozen and defrosted once, it is no longer suitable for this process, because in contrast to freshly expressed milk it can be stored in the refrigerator for only 24h during further procedure. Detailed information on the preparation of skimmed breast milk: www.uni-kiel.de/dgpk/dgpkHandouts/Handout_119.pdf

Physicians need to decide when fat-free and/or fat reduced breast milk can be used. Depending on the child's condition, parenteral feeding or the like might temporarily be necessary. It needs to be individually decided, at what time feeding is possible again and what amount of residual fat should be inherent. In the literature the successful usage of skimmed breast milk with up to 1 % residual fat was described [2, 4], furthermore in one study the administration of during at least 2 days naturally separated breast milk was successful [7]. The Childrens Hospital of Philadelphia, USA, uses centrifuged breast milk for chylothorax, provided that its fat content is <1 % (information handed over personally). Thus both methods - using centrifuge as well as storing it in the fridge over 3 days - would principally be appropriate.

Since 2014 in German-speaking countries skimmed breast milk is used in the Deutsches Kinderherzzentrum of Asklepios Klinik Sankt Augustin and at the Herzzentrum Leipzig in the course of a study (information provided by Dr. med. Tina Springer, Tel.: 0341-865-253035, e-mail: tina.springer@helios-kliniken.de). I hope more clinics will choose to use this method soon! I would be very happy to achieve reports of parents whose infants received skim breast milk, or of clinics that apply this method.

Fig. 3: Even in sealed 60ml syringes the separation works

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Invitation to the

General assembly of ELACTA

Friday, 13 May 2016, 17.30

Titania Hotel / Athens

9th ELACTA Conference in Athens

An Ancient Art in a Modern World

In May you can expect a varied programme in Athens. The interesting and realistic workshops in pre-conference are almost completely booked out; please register soon. The main conference offers: well known lecturer like Michel Odent, Cathrin Genna Watson, Eveline Kirkilionis, Carlos Gonzales, Helen Gray and exciting topics like epigenetics, anterior and posterior tongue frenulum, breastfeeding during disaster situations, thyroid function of breastfeeding women and many more. You can actively help organise the conference: until mid-March you can hand in abstracts for the poster walk and the short lectures (lectures up to 30 minutes, spoken in English). The ABM Meeting on Saturday will be hold at the same time like ELACTA Conference and can be attended by every conference participant. All that is spiced with an informative, sociable and funny framework programme: Guided tours to the famous Athenian Acropolis and through the museum of Acropolis, Greek dancing lessons for beginners, Greek food and Greek wine with a view to the Acropolis together with the lecturers and colleagues from all over the world. Whitsun is the perfect travel time to Greece, summery temperatures without too much heat. Use this opportunity and stay a few days more for holiday.

INTERPRETING

For the main conference we kindly ask all colleagues who are interested in an interpreting service (€ 40,–), to register bindingly via a.hemmelmayr@gmx or info@stillen.at.

These Conference Lectures Might Interest You

The endocrine control of lactation contains complex physiologic mechanisms.
Stelios Grigorakis (Greece)

Among the row of hormones (e.g. Prolactin, oxytocin, cortisol, progesterone, etc.) the thyroid hormones seem to play an essential, not yet well understood role in the breast's function. Therefore undiagnosed and untreated thyroid function disorders, both hyperthyroidism and hypothyroidism, are risk factors for a delayed breastfeeding initiation and insufficient milk supply. Although the mechanism of thyroid function disorders on lactation is not quite understood, presumably it is connected with a defective oxytocin release. If milk supply is affected, early diagnosis of a thyroid function disorder and the appropriate treatment are crucial for the mothers being able to produce enough breast milk for their children.

Initiation of complementary feeding.
Carlos González (Spain)

During the meals often conflicts arise between mother and child. In several countries infant nutrition is strictly under medical supervision, and mothers are encouraged to feed their babies exact portions of certain products in accordance with a rigid schedule. Feeding conflicts initiate early and are likely to last several years.
We will demonstrate that the babies (and not the healthcare professionals) know how much they actually need. After six months of breastfeeding on demand, babies can eat solid food on demand. This new food is not mainly for being fed but for learning. Breast milk is much more nourishing than cereals, fruit, or vegetables. Babies must learn to eat normally. That is why we should offer them normal food (homemade food, the same food that their parents eat) in normal condition (not mashed), enabling them to eat in a normal manner (with their own hands and self-directed). Never ever force a child to eat.

Stone Age mothers and Stone Age babies in a modern world – The significance of our history of being hunters and gatherers for us and our babies today.
Eveline Kirkilionis (Germany)

The hunter-gatherer lifestyle accounted for approximately 90 % of the history of mankind. Most of our genetic attitudes derive from the time of hunters and gatherers. This period had such a significant impact on mankind and demanded a special kind of child care, so that until today our infants show characteristic features and adaptations to this lifestyle. Anthropologists address this as "Hunter-Gatherer-Childcare-Model" (HGC-Model). Striking aspects regarding childcare were – amongst others – close body contact between mother and child (or another carer who is close to the child), breastfeeding on demand, co-sleeping and adaptation of the babies to being carried.

Besides, being carried during its first year guaranteed the survival of the child throughout human history. This is the explanation of a variety of behavioural characteristics and needs, e.g. the calming effect of being carried or the increased attentiveness in upright position. Neglecting this adaptations can lead to illnesses. An obvious example for this is the hip dysplasia or even hip luxation.

Certainly the behaviour of the carer is also influenced by the close body contact. It enables parents being more sensitive towards the signals and needs of their child and thus being able to respond to them faster. Besides it reduces stress reactions of mother and child. Furthermore, body contact influences the release of oxytocin and supports parent-child relationship – all this seems to affect breastfeeding as well.

Breastfeeding after caesarean section without uterine contractions and after caesarean section with effective contractions.
Michel Odent (France, UK)

It is common to differentiate between vaginal delivery and caesarean section. In consideration of the reactions of the physiological fetal systems, the initiation of breastfeeding and milk microbiome, the conventional classification of birth mode apparently needs to be altered. Main criterion is contractions: We differ between caesarean section before effective contractions take place on one hand and all other types of delivery (delivery with contractions) on the other, no matter how the child was born. We point out that it is possible to plan a caesarean section with effective contractions and to conduct such a delivery even before emergency stage.

Breastfeeding Counselling

Protection, promotion and support of breastfeeding are important cost-saving measures in healthcare policy. How and by whom are parents counselled, which initiatives have been taken in the different countries? What can we learn from each other, is there any need to catch up? We tried to survey the status quo via a brief questionnaire.

	AUSTRIA	BELGIUM	CROATIA	DENMARK	FRANCE	GERMANY
Annual Birthrate	ca. 80.000	Ca. 127.000 (2014)	ca. 39.000	56.870 (2014)	819.560 (2015)	ca. 700.000
Breastfeeding Commission or similar public authority	No	Yes	Yes, since 2006	The National Board of Health programm	The COFAM (Coordination francaise pour l´allaitement maternel) – but has no official governmental backing or authority	National Breastfedding Commission (NSK)
How many IBCLCs in the country?	425	201	25	220	602	1460 (2015)
From which professions do the IBCLCs come?	Nurses, midwives, ca. 10 % doctors		Nurses	Nurses, health visitors, midwives nurses	No information	Ca. 50 % (pediatric) nurses
Other professional accreditations	Lactation Contultants (EISL)	UCLL Genk and Arteveldehogeschool Ghent	No	No	University course on human lactation	Lactation Consultant (EISL); Breastfeeding Companion DAIS
Voluntary breastfeeding counsellors?	La Leche League, AFS, Lactation Consultants	vzw Borstvoeding, LLL Vlaanderen, VBBB	RODA, Izvor and Klub trudnica Split	LLL and Forældre og Fødsel.	La Leche League, Solidarilait	LLL and AFS
Peer counseling program?	No	Yes, from vzw Borstvoeding	No	Mothers' groups, but not specialized in breastfeeding questions	15 peer counselling networks Trained by ARPAL (Association Relais Parentailté Allaitement)	None known
What other groups of professionals besides IBCLCs do breastfeeding counselling in the framework of their activity?	Midwives, nurses on maternity units. pediatricians, gynecologists, GPs, social workers in parent counselling	Midwives, nurses, pediatricians, GPs	Visiting nurses and midwives	Midwives before and after birth and in the hospital, nurses, obstetrical departments, neonatolgy, ambulatory health workers in the community, doctors	Midwives, many mother-baby clinics (PMI) many infirmaries	(Pediatric) nurses, pediatricians, gynecologists, midwives, naturopaths

in Europe

	GREECE	LUXEMBURG	NETHERLANDS	ROMANIA	SLOVAKIA	SLOVENIA
	89.189 (2014)	6.829 (2014)	175.181 (2014)	185.322 (2014)	55.000 (2013)	21.165 (2014)
	National Committee advising Ministry of health and 2 BFHI coordinators	Yes	National Breastfeeding Council	Yes, Breastfeeding Committee at the Ministry of Health, but not functional.	Slovakian Pediatric Association in cooperation with the Institute for Breastfeeding Promotion and the Slovakian Committee for UNICEF	National Breastfeeding Promotion Committee
	70	25	400	26	1	53
	Pediatrians 60 %, Midwives 25 % Other 15 %		Nurses, post-partum health visitors, midwives, volunteers	Pediatricians	Nurses	Nurses, midwives, ca. 15 % doctors
	No	No	Breastfeeding coach	No	Basic course and breastfeeding seminars from IPD	No
	La Leche League, Facebook Breastfeeding Support Groups	La Leche League, AFS breastfeeding counsellors	La Leche League, Breastfeeding Naturally		Mamila	Društvo svetovalcev za laktacijo in dojenje Slovenije – Slovenian IBCLC Organization; La Leche League
	No	No	Yes, with the aforementioned organizations LLL + VBN	No	No	?
	Pediatricians, midwives, nurses, nutritionists, doulas, psychologists, pharmacists	All those on maternity units: Midwives,Nurses, Nursing Assistants, Pediatric Nurses, Doctors	Gynecological nurses, Pediatric nurses, Postpartum nurses, Pediatricians, Gynecologists, Breastfeeding coach	No one officially	Nurses, midwives, doctors	Nurses, midwives, doctors, nutritionists

	AUSTRIA	BELGIUM	CROATIA	DENMARK	FRANCE	GERMANY
Breastfeeding knowledge of medical personnel	In their training, midwives are given basic knowledge about breastfeeding. This is scarcely considered in the training of other health care professionals.	Continuing education between 2-4 hours	Doctors have no continuing education. Nurses have only a little continuing education on breastfeeding.	Many doctors have no special education about breastfeeding, but have special knowledge about breast diseases and child development. With nurses, health care workers and midwives, breastfeeding is included in the basic education, prescribed by the „National Board of Health Standards for Breastfeeding“	About two hours of instruction about the value of human milk and about breastfeeding.	Breastfeeding knowledge has an insigificantly small place, almost none among doctors.
Challenges in cooperative work	Cooperative work is not always easy. Breastfeeding counselling frequently not perceived as a special area of professional knowledge	Different information about breastfeeding.	Croatia has an excellent National Breastfeeding Committee that works well with all interest groups, particularly since Croatia has been connected with the „World Breastfeeding Trends Initiative“. Difficulties often occur in the basic work due to the different levels of knowledge and different attitudes towards the topic of breastfeeding between members of the various health care professions.	Generally, the conditions for breastfeeding are good, both for the mothers and babies.	Respect, appreciation of these additional competencies.	To promote cooperation and not to regard it as competition. Exchange of knowledge.
Is professional breastfeeding counselling reimbursed by the health insurance companies?	No	Midwives can bill for breastfeeding counselling, but do not need special training for this.	No	There are local health care workers who are employed by the local communities.	In the first 6 weeks after birth, midwives can visit mothers for breastfeeding problems as often as necessary.	Only in exceptional cases for IBCLCs ((i.e. for babies with clefts and prematures) after investigation by the relevant worker. Midwives can bill a maximum number of breastfeeding consults until the end of the first year of life.
Online or telephone hotline	Various question pages, LLL leaders offer telephone counselling.	Voluntarily by midwives, nurses and IBCLCs.	Under the name Telefoncic, UNICEF Croatia offers advice for parents on various topics, including breastfeeding. The personnel were trained by an IBCLC.	Yes, by hospitals and local health care workers. There are some ambulatory breastfeeding clinics and telephone counseling, which is carried out by IBCLCs.	LLL France, Solidarilait, Babyfood and formula companies	

	GREECE	LUXEMBURG	NETHERLANDS	ROMANIA	SLOVAKIA	SLOVENIA
	Nursing personnel and doctors have minimal education on breastfeeding. Midwives have somewhat more instruction about breastfeeding knowledge during their training.	Doctors are not trained in Luxemburg, but abroad. The breastfeeding information for nurses is minimal.	3 – 6 hours of instruction about breastfeeding by doctors, often sponsored by infant formula companies.	No information available	Nurses and midwives: general information about breastfeeding during their education; Pediatric nurses: 8 hours of education during special training; Doctors: 0	A few hours for doctors and nurses. More education for midwives. Some nurses and midwifery students have the possibility of taking special courses on breastfeeding; 20 hours of theory and 25 hours of practical education
	Lack of cooperation/ communication, lack of trust	Frome time to time, very good cooperation between midwives and IBCLCs and, with others, again difficult cooperation.	Bottle feeding seems to be the norm. Doctors want to know exactly how much the babies are drinking.	There are some organizations for mothers and IBCLCs which work together (for events for mothers and professionals).	Expansion of professional counselling for breastfeeding (offered by breastfeeding counsellors and IBCLCs); close cooperation among breastfeeding counsellors, IBCLCs and doctors; introduction of BFHI standards in all maternity hospitals and of neonatal-BFHI standards in all children's hospitals; peer counselling program for breastfeeding.	Lack of recognition of IBCLCs
	No	Only for midwives on a doctor's prescription. But midwives do not need any special professional training for it.	Yes, however from the fee-based supplementary insurance (very common in the Netherlands). IBCLCs must also be members of the national association NVL. Doctors or midwives must refer the mother and/or the baby.	No	No	No
	Alkioni, an Espa program of BFHI, private hospitals, midwifery associations	LLL and Initiativ Liewensufank	Online counselling over Facebook groups,answered partly by mothers, partly only by IBCLCs. LLL and Breastfeeding Naturally offer telephone counselling.	Several organizations (Pro Mama Center and other voluntary organizations). Counselling is done by IBCLCs or La Leche League members.	Online counselling (mamila, o.z.); Telephone hotlines of obstetrical and children's hospitals	By IBCLCs and LLL

An Epigenetic Memory of Pregnancy in the Mouse Mammary Gland

Camila O. dos Santos, Egor Dolzhenko, Emily Hodges, Andrew D. Smith, and Gregory J. Hannon

Photo: Karl Grabherr

Improved preparation, more breastfeeding experience, earlier breastfeeding consultation often help improving the second breastfeeding experience:

A PDF version of this article (prior to editing and typesetting) is available on: www.ncbi.nlm.nih.gov/pmc/articles/PMC4439279/ The final version of the article is published as: Cell Rep. 2015 May 19; 11(7): 1102– 1109. doi:10.1016/j.celrep.2015.04.015.

Pregnancy is the major modulator of mammary gland activity. It induces a tremendous expansion of the mammary epithelium and the generation of alveolar structures for milk production. Anecdotal evidence from multiparous humans indicates that the mammary gland may react less strongly to the first pregnancy than it does to subsequent pregnancies.

Here, we verify that the mouse mammary gland responds more robustly to a second pregnancy, indicating that the gland retains a long-term memory of pregnancy. A comparison of genome-wide profiles of DNA methylation in isolated mammary cell types reveals substantial and long-lasting alterations. Since these alterations are maintained in the absence of the signal that induced them, we term them epigenetic. The majority of alterations in DNA methylation affect sites occupied by the Stat5a transcription factor and mark specific genes that are upregulated during pregnancy. We postulate that the epigenetic memory of a first pregnancy primes the activation of gene expression networks that promote mammary gland function in subsequent reproductive cycles. More broadly, our data indicate that physiological experience can broadly alter epigenetic states, functionally modifying the capacity of the affected cells to respond to later stimulatory events.

Comment:
The study focusing on the areas molecular biology, biochemistry, medicine, cancer research and genetics, has been discussed in various publications in connection with breastfeeding: As a result to changes in DNA the mammary gland's response to pregnancy hormones would be faster and stronger during a subsequent pregnancy. As a consequence, if milk supply had been insufficient with the first child, there is hope for increased milk supply in a subsequent pregnancy. The authors quote several web links leading to discussions on these issues among mothers.

Only experts who work in these areas are able to evaluate such a special study. However, on looking through the whole study, it is important to add that the results cannot be easily transferred on to the field of breastfeeding.

The study provided no indication as to how many mice have been examined; perhaps only a few. The changes have not been analysed during a real pregnancy of the mouse, but during a false pregnancy, simulated via implanted pellets that released oestrogen and progesterone over a period of two months. It is unclear whether the same effects can be observed during a genuine pregnancy, let alone a pregnancy of a woman. The milk supply of the mice has been measured indirectly via the determination of milk proteins. However, even the authors themselves question the sensitivity of these measuring method. They found out that although initially the milk supply of the mice was higher and could be achieved more quickly, however, in the long term it remained the same, regardless of a preceding pregnancy.

The authors declare that there is no conflict of interest. The elaborate study was funded by research funds by CSHL Flow Cytometry Shared Resource, CSHL Histology Shared Resource, Cancer Center Support Grant 5P30CA045508, NIH Grand Opportunity award #1 RC2 CA148507 (GJH), P01 award # 2P01CA013106 (GJH), NIH grant R01 H6005238 (ADS). A closer investigation would be necessary in order to clarify which interests are behind these research funds.

Regardless of the results, this study is invasive for the experimental animals: implantation of hormone pellets and "reaping" of mammary gland cells and/or the whole mammary gland. They do not specify whether the mice were killed before or afterwards.

Concerning breastfeeding differences between first and subsequent pregnancy, breastfeeding consultation practice shows the following aspects as being important:

The question is whether the results of this study can at all be transferred on to breastfeeding in the face of the above described aspects of study design.

Furthermore the authors refer to anecdotal evidence for increased milk supply with the second child and quote from forums. Those forums contain statements about higher as well as lower milk supply with the second child. Breastfeeding consultation would rather require a study that objectively clarifies if milk supply is effectively higher ***in the long term*** with second or further child, e.g. via evaluation of course of body weight of a larger number of children (from booklet of paediatric routine examinations) linked with the information on parity and duration of exclusive breastfeeding. Although the study quotes from three previous studies that compared milk supply of primiparae and secundipara. But two of them compare milk supply on fourth/fifth day after delivery, the third compares milk supply of 22 women having their first and second child after one and after four weeks – it detects a higher milk supply one week and the same amount of milk supply four weeks after delivery. First of all it is important to clarify if the phenomenon – increased milk supply with the second child in the long term – actually occurs and after that it should be examined what the reason might be.

Reasons for the described phenomenon can be observed in practice as well. Many mothers do not prepare for breastfeeding during their first pregnancy, expect breastfeeding to work automatically, since it is "something quite natural". Due to framework conditions – many medical interventions during delivery, high caesarean section rates, differing support during the first days after delivery, economic interests – often the formative first days for developing milk supply are waisted without being optimally used and afterwards breastfeeding cannot develop in a "natural way", as anticipated. As a result of this experience, prior to a second pregnancy, women who care about breastfeeding obtain (more) detailed information on it, dare to ask for all the favourable conditions needed, have more experience and ask for help earlier, if needed. Additionally it may occur that the first child's too short frenulum was detected after three months and that the milk supply was low during that time, and that the second child's short frenulum was treated on the second day – or that the thyroid medication of the second child suffering from Hashimoto has continuously been well adjusted. As far as I am concerned, these are important aspects that might as well be influenceable through breastfeeding consultancy measures, and in individual cases they are for sure weightier than the memory effect of the mammary gland we cannot influence.

Epigenetics is a rather new field of research and especially in terms of infant nutrition it poses exciting new questions. In how far do breast milk or artificial infant food affect epigenetic regulation mechanisms and as a result impact the health of following generations? Which time frame is provided? These and more questions will be answered in an interesting lecture by Dr. Andreja Tekauc Golob, IBCLC, at the ELACTA Conference in Athens.

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www.stillunterstuetzung.de

La Leche League International (LLLI)

The mission of LLLI is "to help mothers worldwide to breastfeed through mother-to-mother support, encouragement, information, and education, and to promote a better understanding of breastfeeding as an important element in the healthy development of the baby and mother."

Author: LLLI

"As a woman grows in mothering, she grows as a human being; and every other role she may fill in her lifetime is enriched by the insights and humanity she brings to it from her experiences as a mother." – The Founders of La Leche League International, 1964

Founded in 1956 in a western Chicago suburb, USA, La Leche League originated when seven nursing mothers came together to broach the lack of good information and support surrounding breastfeeding. With the availability of formula and doctors pushing supplemental feeding, only 20% of US babies were breastfed following WWII. In an interview for the organization's 50th anniversary, co-Founder Marian Thompson recalls, "It struck me as unfair that women who wanted to do the very best for their babies couldn't get any help."

The organization increased its credibility with the support of Dr. Gregory White, a strong advocate of breastfeeding and husband of co-Founder Mary White, and repeated endorsements from Princess Grace of Monaco. Since its humble beginning, La Leche League International has developed a presence in 72 countries with over 3,000 groups that gather mothers together for monthly support.

LLLI Leaders are accredited volunteers who have breastfed their own babies for at least a year and are specially trained by LLLI to help mothers with breastfeeding. Nearly 7,000 La Leche Leaders around the world offer monthly Group meetings with a simple purpose: to help women who want to breastfeed their babies. A common theme repeated at LLLI meetings is "take what you need and leave the rest," acknowledging that every mother-baby relationship is unique and each mother knows her own baby best. Some Leaders also do home and/or hospital visits.

Additional services provided by the organization include telephone and email help, social media communities, and online Help Forums. The nonprofit's core publications include: *The Womanly Art of Breastfeeding* (now in its 8th edition), *Feed Yourself, Feed Your Family*, and *Sweet Sleep*. LLLI also publishes a free online bimonthly nursing and parenting journal, Breastfeeding Today.

Celebrating its 60th year this October, La Leche League International will continue to bring communities of support to mothers throughout the world. The purpose remains the same: *Happy Mothers, Breastfed Babies*.

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