Breastmilk is the best food for the infant in the first months of life. It meets the nutritional needs for the healthy growth and physical development of the child, and from an emotional standpoint it ensures the formation of a good mother-child bond and an appropriate secure attachment to the mother, both of which are essential for healthy development into an independent and confident individual. For all of these reasons, breastfeeding is considered the preferred method of feeding and nurturing the infant and the young child.

The superiority of maternal milk over any other food (artificial formula) for the nutrition and development of the baby in the early months of life has been proven extensively in numerous scientific studies, which point at higher risks for several health problems in children who have not been breastfed, among which we would like to underscore a higher risk of SIDS and mortality in babies during the first year of life, as well as a higher risk for contracting gastrointestinal, respiratory and urinary infections, and for these infections to be more severe and lead to hospitalisation. In the long-term, children who were not breastfed have higher incidences of atopic dermatitis, allergies, asthma, celiac disease, inflammatory bowel disease, obesity, diabetes mellitus, multiple sclerosis and cancer. Girls who were not breastfed are at higher risk for breast cancer later in life. Babies who were not breastfed perform worse on intelligence tests and have a higher risk of suffering from hyperactivity, anxiety, and depression, and to be victims of child abuse. On the other hand, their mothers are at a higher risk for post-partum haemorrhage, vertebral and hip fractures in
postmenopausal age, ovarian cancer, uterine cancer, rheumatoid arthritis, cardiovascular disease, hypertension, anxiety and depression.

The mother that breastfeeds protects the environment by lowering the consumption of electricity and water, as well as the generation of various environmental pollutants that are produced during the manufacturing, transportation, and distribution of maternal milk substitutes and the wares used to administer them.

THE SUPERIORITY OF MATERNAL BREASTMILK

The superiority of maternal milk is determined mainly by its composition, which adapts to the needs of the nursing child and changes throughout the breastfeeding stage, throughout the day, and even during each feeding.

Colostrum is the first milk. It is yellowish and contains a large amount of proteins and immunoglobulins (anti-infective substances), and provides a high number of calories in a small volume. It is the ideal food for the first few days, since the baby has a small stomach and needs to get frequent and small feedings.

The composition of breastmilk also changes during a single feeding. In the early part of the feeding, the milk has a higher sugar and water content, quenching the baby’s thirst. Afterward, its fat content increases gradually, providing more calories to sate the child. This is why it is important and recommended that the child finishes feeding on one breast before he is offered the other one (if he releases the first one spontaneously), which he will accept later if he is still hungry. To prevent breast engorgement or milk retention, it is recommended that each feeding begin with the breast that the infant did not feed from or fed from the least in the previous feeding.
Some of the beneficial effects of breastfeeding in the psychomotor development of the baby are not directly related to the composition of the milk, but have to do with the act of breastfeeding, which involves the frequent proximity and intimate contact of mother and child: there is mutual gazing, the baby feels held, and direct sucking on the mother’s breast triggers the secretion of hormones such as oxytocin and prolactin. All of this forms a special bond, leading to more psychologically balanced children who show fewer behavioural, hyperactivity, depression, and anxiety-related problems even in adolescence.

For all the reasons noted above, and in agreement with the World Health Organization (WHO) and the American Academy of Pediatrics (AAP), the Lactation Committee of Spanish Association of Paediatrics (AEP) recommends exclusive breastfeeding for the first six months of the child’s life, and to continue breastfeeding in combination with other foods to complement the child’s nutrition until two years of age or older, for as long as the mother and child desire.

BREASTFEEDING INITIATION

The optimal beginning:

If mother and baby are both healthy, and regardless of the method of delivery, it is important that the newborn is placed on top of his mother in close skin-to-skin contact, and that mother and child are allowed to maintain this contact without interruption or interference at least until the baby has fed from the breast for the first time, and ideally for as long as the mother and baby want to.

The newborn has innate abilities that will kick into place at birth if we allow it. If he is placed face-down on his mother’s stomach, he can reach the breast on his own using his senses (especially touch
and smell) and his reflexes. He will crawl toward the breast, smell it, touch it with his hands and then his mouth, and eventually will manage to latch on to the breast spontaneously, with a fully open mouth, taking in the nipple and a large portion of the areola.

Skin-to-skin contact is not only important for proper establishment of breastfeeding, but also helps the newborn adjust better to life outside the womb and to establish an affective bond with his mother. For these reasons, early contact must be encouraged in all newborns regardless of the feeding method that is going to be implemented later on.

Hospital routines such as newborn identification and the Apgar test can be performed while the baby rests on his mother. Taking the baby's weight and administering the dose of vitamin K, prophylactic eye treatment and the hepatitis B vaccine can wait until the first two hours post-birth have been spent in skin-to-skin contact or when the baby has completed his first feeding at the breast. These procedures are bothersome and painful to the baby, but if we perform them while the baby is nursing (and if this were not possible, following administration of glucose or sucrose), the pain and discomfort of the shots will be lessened.

The capacity of the newborn to latch spontaneously and correctly to the mother’s breast remains until the third or fourth month of life, which is very important when it comes to addressing any problems with breastfeeding. It is recommended that this method, known as “breast crawl”, be used whenever the mother wishes, but especially if there are difficulties with the latch-on.

**At the hospital:**

Having the mother and child room-in together and without restrictions 24 hours a day encourages breastfeeding, allowing the baby to access the breast whenever he wants. It is known that women
who have their newborn with them at all times are less worried and rest better. Furthermore, the baby is calmer because his needs can be met faster: for nutrition, and for touch, warmth, affection, and security. Having mother and baby in the same room also makes it easier for the healthcare staff to offer ongoing and efficient support to the mother.

In general, right after birth newborns are alert and active for a span of about two hours. In this early period, if the baby was delivered without the use of drugs and there is no interference, most babies succeed in feeding at the breast on their own while in skin-to-skin contact. After this they go through a sleeping phase (a physiological lethargy to “recover” from the birth) that may last between 8 and 12 hours. It is not advisable to force the baby to feed during this time: if he is kept in skin-to-skin contact, the baby will feed at the breast again whenever he needs to.

It is usual for the newborn to breastfeed frequently after the first day of life, between 8 and 12 times a day, and for these feedings to happen at irregular intervals and more frequently at night. In fact, some mothers refer to the second night as “mad cow night”. However, some infants continue to be very sleepy, ask to nurse little, and feed less than they need to. In these cases it is advisable that they are placed in skin-to-skin contact, which helps them respond to the mother’s scent and to nurse of their own accord. At times, it may be necessary to help them wake up by removing their clothing and dressing them again, massaging their feet in circles, or caressing their backs gently from bottom to top.

The main stimulus for milk production is the baby’s sucking and the emptying of the breast, so the more the baby nurses the greater the milk supply. The breast does not run out of milk, the more the baby takes, the more the mother produces.
It is important to nurse on demand, whenever the baby asks for it and for as long as he wishes. This way we are sure that he is obtaining everything he needs, which sometimes may be nourishment, and others warmth, love, or protection. The earliest hunger cues are licking his lips, rooting, sticking out the tongue, mouthing his hands… this is the ideal time to start breastfeeding. It is not good to wait for the baby to cry to bring him to the breast, since crying is a late hunger cue and it will not be easy for the baby to latch on until he has calmed down.

The newborn that breastfeeds adequately and on demand does not need any fluids outside of breast milk. It is neither necessary nor advisable to offer them water or saline solutions unless it is medically indicated. Thus, it is advised that the paediatrician is consulted before giving the baby any “supplements” or any food other than breast milk.

At home following discharge:

Once mother and baby arrive home, the baby should continue to be breastfed on demand. It is important that the mother makes an appointment with the healthcare centre or the paediatrician to do a check-up on the baby 24 to 48 hours following discharge.

In this first visit, in addition to ascertaining that the baby is healthy, it is important that an assessment of breastfeeding be made. If the baby nurses often and produces stools at least 3 times a day, it is a sign that he is getting all the milk he needs. If the mother feels pain, thinks she is not producing enough milk, or the baby is crying too much or feeds too little, a lactation expert should be consulted to address the difficulties, since in most cases there is no need to resort to bottles, pacifiers or supplements. It is also very helpful to contact the closest support group or the breastfeeding workshop in the healthcare centre. In these groups, other mothers who have more
experience with breastfeeding can provide support and make it easier to initiate breastfeeding.

Whenever difficulties or questions arise, it is important to go to the nearest healthcare centre or to consult with the paediatrician or midwife and to get in touch with a breastfeeding support group. Bottles and other supplements do not solve the problems and may even jeopardize the establishment of breastfeeding. They should be offered only when medically indicated, and once all the other options recommended above have been exhausted.

BREASTFEEDING TECHNIQUE

Most problems in breastfeeding are due to problems with breastfeeding technique, either an inadequate nursing position, or an incorrect latch-on, or a combination of both.

A good latch-on

Good breastfeeding technique prevents the emergence of complications such as cracked and painful nipples, ensures the correct emptying of the breast, and enables the production of a milk supply that meets the particular needs of the baby.

To achieve a good latch-on it is important that the whole body of the baby is facing the mother, and that the baby takes in most of the areola when he opens his mouth, especially the lower part (where his chin is) so when he actively moves his tongue he does not harm the nipple. The indicators of a good latch-on are: the jaw of the baby touches the breast, the mouth is open wide, the lower lip is turned out (everted), and the cheeks appear full or flattened (not sunken) when he suckles. Also, a greater portion of areola should be seen above than below the lips. If the baby has latched on properly, nursing does
not hurt. In most cases, pain results from an incorrect position or latch-on.

**Nursing positions**

There is no single appropriate position for breastfeeding. What matters is that the mother be comfortable, the latch-on correct, and that the baby is facing and right against the mother’s body. We will proceed to explain a few positions that can facilitate the beginning of a happy and long-lasting breastfeeding experience.

**Biological nurturing position:**

The so-called biological nurturing position is based on the study of maternal and newborn reflexes. The mother will be leaning backwards (forming an angle between 15 and 65º) and facing up, and the baby will be facing down, in close skin-to-skin contact with the mother’s body. This position allows the baby to be relieved from his weight and to perform the crawling and rooting reflexes. It furthermore ensures that his face touches the breast. The mother will help him reach the breast by setting boundaries with her arms. This position triggers a series of reflexes on the pair that will facilitate a good latch-on, efficient feeding, and a greater milk supply.

The biological nurturing position can be used at any time, but it is especially appropriate in the first few days and whenever there is some problem with the latch-on (soreness, cracked nipples, breast refusal...).

**Seated position:**

The seated position is usually more comfortable when the feet are propped up on a stool, and with the mother reclining slightly, in the biological nursing position, in case there has been an episiotomy,
since much of the soreness is alleviated by lifting the affected area off the chair.

The baby must be placed with his body facing and pressed against the mother. This way the mother can hold him by placing a hand on his back, with the baby’s head nestled against her forearm. She can use the other hand to bring the breast to the baby’s mouth, and as he opens it she can push him gently toward the breast so he can take in a good portion of the areole. This is the most frequently used position after the first few days, when the mother can move better and is more comfortable handling the baby. It is not necessary to hold the baby’s buttocks with the hand of the arm on which he rests, since this usually pushes the baby’s head very close to the elbow. This can make his neck bend or impede its stretching, making it harder for the baby to latch on correctly and swallow with ease.

**Side-lying position:**

In this position, the mother lies on her side with the head slightly raised (on a pillow) and the baby lying also on his side, on the bed, with his body facing and pressed against the mother. To facilitate latching on, the mother can bring the baby close to the breast by pushing gently on his back when he opens his mouth.

This is a very comfortable position for night feedings and the first few days, although it tends to be more uncomfortable and less efficient than the biological nurturing position.

**The underarm position or football hold:**

In this position the baby is placed under the mother’s arm with his legs tucked back and his head at the level of the breast, with the nipple facing the nose. This is a very comfortable position to nurse twins and premature babies. It is important that the neck is supported, but not the head, since the latter needs to lean back with the neck
bent (in deflexion) so the infant can latch on better and swallow with
greater ease.

**The straddle position:**

With the mother in a sitting position, the baby straddles on one
of the mother’s thighs with his belly pressed against the mother’s. This
position can be helpful in cases of cracked nipples or for babies who
have a significant gastroesophageal reflux, premature babies, or
babies with cleft lips or palates, with a small jaw (retromicrognathia) or
with problems related to hypotonia. In these cases, it may be
necessary to cup the breast from below while holding the baby’s chin.

**BREASTFEEDING ON DEMAND**

Breastfeeding on demand means offering the breast whenever
the baby asks for it, (keeping no count of feedings) and for as long as
he wants it (regardless of the duration of each feeding). It is better not
to remove the baby from the breast, but to let him release it of his own
accord.

Babies want to nurse when they are making licking motions,
yawn, take their hands to their mouths, or calling sounds. It is not
necessary to wait for them to cry.

Babies need to hold on to the breast not only for feeding, but
also to sooth themselves. On the other hand, lactation hormones are
released whenever the baby sucks on the breast, even if the baby is
not extracting milk. To avoid nipple confusion, the use of pacifiers and
artificial teats is discouraged until breastfeeding is well established (for
at least the first 4 to 6 weeks). Furthermore, using artificial teats can
lead to incorrect latch-ons and cracked nipples.

Systematic use of nipple shields should also be discouraged.
They are only useful in special cases, and ought to be prescribed by
an expert in lactation. It may be easier for the baby to find the nipple
when it is covered with the shield, but he will have a harder time sucking out the milk, especially at the end of the feeding, when the milk has a higher fat content.

HOW LONG SHOULD BREASTFEEDING CONTINUE?

Exclusive breastfeeding is recommended up to six months of age, with continued breastfeeding along with complementary foods up to two years of age or beyond.

It is well proven that the baby does not need anything besides breastmilk up to six months of age, since it provides him with all the necessary nutrients, and on the other hand early introduction of other foods can cause problems for the baby.

Starting at 6 months, and up to one year of age, other foods can be gradually introduced following feeding at the breast. This way, the baby will accept these foods more easily, and we will make sure that he is getting all the calories and nutrients that he needs.

Mother and child must choose how long to continue breastfeeding. Breastfeeding beyond two years of age, although infrequent, is still beneficial for both mother and child. When it is time to wean the child, it will be done gradually and slowly to avoid causing problems for either mother or child.

FOODS, BEVERAGES, AND MEDICATION.

The breastfeeding mother does not need to follow a special diet. Optimal nutrition comes from a healthy and varied diet, avoiding additives and pollutants. It is only in specific cases, when there is a disease or nutritional problems, that a physician may recommend taking some supplements.

To ensure that breastmilk provides the amounts of iodine required by the baby, in countries where iodine is not found throughout
the food chain, as is the case of Spain, it is recommended that the mother takes a supplement of 200-300 mcg/day of iodine throughout pregnancy and lactation, in addition to cooking her food with iodized salt and eating fish. This supplement is not necessary in many Latin American countries, since adequate levels of iodine are found across the food chain.

Although it has been demonstrated that the aroma of foods is carried into the milk and can change its smell and taste, no food is forbidden during lactation. The changes that the baby perceives in the taste of breastmilk help him become familiar with various flavours, which will make him more willing to accept complementary foods. Only if it is observed repeatedly that after the mother consumes a certain food the baby shows some kind of ailment (vomiting, diarrhoea, eruptions, discomfort, or refusal to breastfeed) will it be necessary to avoid that particular food.

There are also no mandatory foods during lactation. A healthy and varied diet is recommended, as at any other point in life, along with satiating hunger without resorting to excessive consumption of sweets or snacks. Gentle physical exercise, such as a one-hour long walk a day, will contribute to improving the fitness of the mother and help her return to her pre-pregnancy weight.

No food has been proven to help produce more milk. The best stimulus that helps produce an adequate milk supply is having the baby feed on demand with no restrictions.

Most of the pharmaceutical drugs commonly used are compatible with breastfeeding and it is seldom necessary to discontinue nursing when taking them. If you have questions, you can consult www.e-lactancia.org.

**Caffeine:** excessive consumption of coffee, cola drinks, tea and chocolate should be avoided. In all cases, they should be consumed...
right after breastfeeding. Large doses of caffeine (over 3 cups of coffee) can cause irritability and sleeplessness in the baby, although in some cases lower doses can lead to these symptoms.

**Tobacco**: smoke is very harmful to human health, and pregnancy and breastfeeding can provide a good motivation to quit smoking. If quitting seems impossible, it is important never to smoke around the baby, to not smoke inside the house, and to smoke immediately after a feeding (so that smoking will be as removed as possible from the next feeding). It is always preferable to breastfeed than to feed babies breastmilk substitutes, since breastfeeding decreases the risk of respiratory infections and asthma to which they are most susceptible. Children of smoking mothers or fathers should not sleep with their parents in the same bed (co-sleeping).

**Alcohol**: alcohol is also harmful to the health of the mother and of the child. Chronic alcoholism is incompatible with breastfeeding. Although having wine or beer in moderation does not harm the mother’s health, it could hurt the nursing baby and it is better to avoid it. In any case, the baby should not be breastfed in the three hours following alcohol intake, and co-sleeping should be avoided when alcohol has been consumed.

**Phytotherapy**: although it is often thought that medicinal plants are harmless, most of them contain active substances that are often not standardised (it is not known which substances they contain or in which amounts) and may be toxic to the breastfed baby. Having a good source of information on this kind of products is a must. Consult the page on the subject of medications and breastfeeding at [www.e-lactancia.org](http://www.e-lactancia.org).

**Other drug abuse**: no drug use is compatible with breastfeeding, except for methadone in doses less than 20 mg a day.
Environmental pollutants. The growing concern about environmental pollutants has led the Breastfeeding Committee of the Spanish Association of Paediatrics to publish a document on this issue, which can be accessed in full on the following web address: http://www.aeped.es/sites/default/files/documentos/contaminantes_comite_lm_aep_0.pdf

COMPLEMENTARY FOODS.

By six months of age most babies can sit upright with some support and start showing an interest in other foods, can express through gestures that they are feeling hungry or sated, and have lost the reflex that made them expel food from their mouths (extrusion reflex). All of the above indicates that the baby is ready to consume other foods. On the other hand, from the sixth month of life babies start needing nutrients beyond those provided by breastmilk, so it is recommended that other foods start to be offered to them at this age.

We must remember that these are foods that, as their name denotes, complement the basic nutrition of the baby, which continues to be breastmilk. So it is recommended that these foods are offered following breastfeeding until about one year of age. It is also advisable that only small amounts of the new foods are offered at first, perhaps a single teaspoon, which can be increased little by little.

It is recommended that no more than one new food is introduced each day to detect potential allergies or intolerances, and that the foods offered are foods usually found at the family table, gradually introducing the child to a healthy and varied diet.

From six months of age, except in those families where there is a history of allergies, the baby can start trying practically all foods, but remember that he should not have too much fibre. You can get
more information in the frequently asked questions section: http://www.aeped.es/faq/lactancia-materna#t48n145

THE PACIFIER AND BREASTFEEDING

The subject of pacifier use in breastfed babies is a source of controversy among healthcare professionals, parents, and society at large. The Lactation Committee of the Spanish Association of Paediatrics has recently published a scientific paper that reviews the evidence on this subject, which can be consulted at the following address:

http://apps.elsevier.es/watermark/ctl_servlet?_f=10&pident_articulo=90002200&pident_usuario=0&pcontactid=&pident_revista=37&ty=112&accion=L&origen=elsevier&web=www.elsevier.es&lan=es&fichero=37v74n04a90002200pdf001.pdf

The recommendations offered in this paper can be summarised as follows:

- Exclusive breastfeeding is recommended for the first six months of life to protect against sudden infant death syndrome (SIDS).
- Pacifier use must be avoided in nursing infants until breastfeeding is well established, usually after the first month of life, which is also the time that the risk for SIDS starts.
- Pacifier use might be a sign that there are issues with breastfeeding. If the child is sucking on a pacifier, he is indicating that he wants to nurse and should be offered the breast.
- In the case of children hospitalised in neonatal units, when the baby cannot nurse directly at the breast, he can be given a pacifier to suck on in combination with sucrose or glucose to alleviate his pain during aggressive procedures.
- In bottle-fed children, it is very important that the pacifier is used to prevent SIDS, since they are not protected by sucking on the breast.
It is recommended that use of a pacifier is discontinued by one year of age to avoid adverse effects related to its prolonged use, such as dental problems, otitis media, etc.

There are other means to soothe the baby, such as skin-to-skin contact and non-nutritive suction methods other than the pacifier.

THE FATHER, THE FAMILY, AND BREASTFEEDING

The birth of a new member of the family is always a joyous and anticipated occasion, but in most cases it also brings many changes to the family dynamic.

Although only the mother can breastfeed, the father plays an essential supportive role in establishing and maintaining lactation.

For the couple to be able to support each other, it is advisable that both members are informed about breastfeeding and the behaviour of the newborn. Therefore, it is advised that they both attend the prenatal visits with the midwife, paediatrician, or support group. An informed father will offer better support at the time of the baby’s birth.

Skin-to-skin contact is essential to the newborn, as it facilitates his adjustment to extrauterine conditions. If the mother is unable to engage in it, it is convenient and desirable that the father does it in her stead.

In the first few days, many women question their ability to lactate. The father’s unconditional support at such times will be essential to reassure the mother and make her feel confident, and thus they will be able to overcome the obstacles together.

The father can also take care of domestic chores, of caring for other children, changing diapers, bathing the baby, holding him, soothing him, or can enjoy skin-to-skin contact with the baby while the
mother rests. The latter is usually very satisfying for both father and child, and helps build life-long bonds between them.

The father also plays a significant role as a buffer for those comments that others tend to make and that may at times undermine the mother’s confidence. He can also manage the visits, which can be tiresome to the mother in the first few days, ensuring the quiet, privacy and comfort that the mother needs.

The rest of the family also plays an important supportive role as long as they respect the parents’ choices and privacy. They can relieve the parents from various chores unrelated to baby care that need to get done, so the parents can enjoy more time with their baby.

**THE LABOUR RIGHTS OF THE PREGNANT AND LACTATING WOMAN:**

There are several legal measures in place to facilitate the reintegration of the mother into the workforce. You can find more information on this topic in the frequently asked questions section:

http://www.aeped.es/faq/lactancia-materna#t48n145

Information can also be obtained at the following address:

http://www.seg-social.es/Internet_1/LaSeguridadSocial/index.htm

**SLEEP, CO-SLEEPING, AND BREASTFEEDING**

A baby’s sleep is a source of concern for parents, and often for the entire family. Babies need close contact, especially with their mothers, in the first years of life (and particularly in the early months), and their sleep patterns are different from those of adults.

It is known that the hormones that make lactation possible provide the breastfeeding mother with a deeper and more restorative sleep, and it has also been demonstrated that when the mother sleeps with her baby, she instinctively adopts a protective stance that ensures breastfeeding, sleep for both mother and baby, and protection against
problems such as sudden infant death. It is also proven that co-sleeping facilitates breastfeeding and that, except in high-risk situations, breastfeeding protects the baby from sudden infant death syndrome.

The decision of where the baby sleeps is tied to the parents’ cultural background and the kind of relationship they wish to establish with their children. It is important that before making their choice, parents are informed by healthcare professionals (physicians, paediatricians, and nurses) on certain situations that may make co-sleeping riskier for children, especially in infants younger than 6 months. In this regard, it is important to take into account the following recommendations:

1. The safest sleeping arrangement for infants younger than six months is in their crib, on their backs, near the parents’ bed. There is scientific evidence that this practice lowers the risk of SIDS by more than 50%.

2. Breastfeeding has a protective effect against SIDS and, on the other hand, co-sleeping is a practise that encourages breastfeeding maintenance, although it is also a factor that increases the risk of SIDS and is thus not recommended in the following situations:
   - Infants younger than 3 months.
   - Prematurity and low birth weight.
   - Parents that consume tobacco, alcohol, drugs, or sedatives.
   - Tiredness, especially extreme tiredness, such as right after delivery.
   - Co-sleeping on soft surfaces, such as water mattresses, couches, or armchairs.
   - Sharing the bed with other family members, other children, or several people.
3. Parents who wish to be closer to their baby during the night have the option of placing the crib by their bed or using a “side-car” crib (a separate sleeping surface attached to the parents’ bed) that facilitates breastfeeding and does not interfere with the frequency of feedings.

More information available in the frequently asked questions section.: [http://www.aeped.es/faq/lactancia-materna#t48n145](http://www.aeped.es/faq/lactancia-materna#t48n145)
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