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# Preparing for Breastfeeding in Women with Diabetes

**A**ccording to the World Health Organization (WHO), health authorities and national and international scientific societies, breast milk is the natural and optimal food for the newborn (NB). Exclusive breastfeeding (EBF) is recommended within the

first 6 months of life because it provides all the necessary nutrients for the growth and development of the infant. From then on, breastfeeding should continue at least until 2 years of age, along with the consumption of complementary foods (CF).

Breastfeeding (BF) has undeniable benefits for both mother and infant. It favors the **establishment of the mother-child bond**, which is fundamental for raising a healthy child. Furthermore, it is associated with a reduced risk of childhood infections, reduces the risk of autoimmune diseases (asthma, dermatitis, etc.) and other serious metabolic diseases such as obesity and diabetes. Finally, BF increases IQ scores. In the mother, it is associated with a lower risk of breast and ovarian cancer, as well as type 2 diabetes mellitus (T2DM).

Numerous factors have been described as being associated with not initiating exclusive breastfeeding (EBF) or abandoning it before 6 months, such as: maternal age below the age of majority, low socioeconomic or educational levels, unsupportive workplace conditions, inadequate childbirth and postpartum care, low birth weight, perception of "not having enough milk," previous negative breastfeeding experiences, end of pregnancy by cesarean section, and poor prenatal advice and/or support on EBF.

Undoubtedly, teaching mothers before the birth of their newborns and the breastfeeding decision made beforehand are key factors in breastfeeding success and in the prevention of future childhood diseases. Women with diabetes may have more diffi-

culties in the initiation and establishment of breastfeeding due to multiple factors. EBF is a fundamental aspect of infant and maternal health, especially in the context of type 1 diabetes (T1DM) and gestational diabetes (GD).

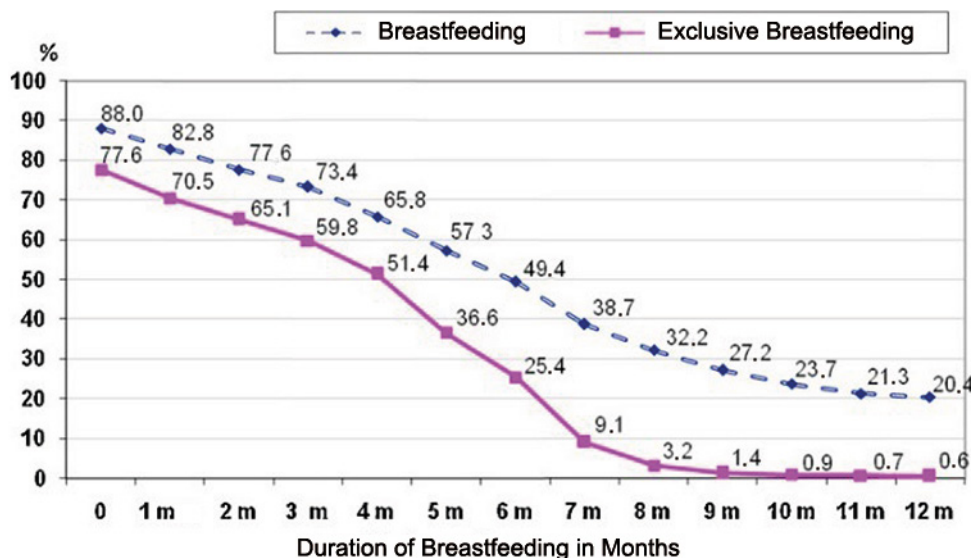
This article explores the importance and necessary value of BF preparation in women with diabetes who decide to breastfeed, as well as the benefits that this practice entails for both the mother and the baby.

There are factors that can be acted upon to improve BF outcomes. Speaking of numbers, in Spain, according to the 2017 National Health Survey, BF was the feeding method used in 73.9% of infants within the first 6 weeks of life, a figure that dropped down to 63.9% at 3 months and 39% at 6 months.

Given these figures, it is convenient to stop and analyze the different factors related to the initiation and maintenance of EBF, since both the initiation and the rapid abandonment of breastfeeding are related to factors that act jointly at both the individual level of the mother-baby dyad and at the socioeconomic and cultural level. Some of these factors will be impossible to modify, but work could be done on others to achieve better adherence to EBF.

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## TEACHING MOTHERS BEFORE THE BIRTH OF THEIR NEWBORNS AND THE BREASTFEEDING DECISION MADE PREVIOUSLY ARE KEY FACTORS IN BREASTFEEDING SUCCESS AND IN THE PREVENTION OF FUTURE CHILDHOOD DISEASES



» In Spain, a new push on BF is really needed to improve its figures, which will undoubtedly require government commitments and investments, but also unwavering support from the scientific community and civil society for its promotion, protection, and support, including **psychological support** for families and work prior to pregnancy in this regard, educating on BF and doing **interdisciplinary work (midwife, lactation consultant, gynecologist, endocrinologist)**.

#### *Preparation for BF in women with diabetes involves several key factors:*

**1. Education and awareness:** It is essential that mothers receive information about BF and its relationship with diabetes, in addition to its benefits, especially for babies of mothers with diabetes. This includes understanding how diabetes behaves during this stage, how it can affect milk production, and the risk of hypoglycemia, which occurs more frequently during breastfeeding due to the additional energy expenditure.

**2. Glucose management:** Maintaining stable blood glucose levels is crucial. Frequent monitoring of glucose levels and adjustments in insulin after delivery are recommended as needed, and modifications should be made as breastfeeding is established.

**3. Consultation with health care professionals:** Mothers should work closely with endocrinology, pediatrics, and lactation consulting professionals to develop a BF plan that is tailored to their specific needs. This may include strategies to manage hypoglycemia or hyperglycemia during lactation and a prenatal assessment where a comprehensive evaluation of the mother's health status is carried out, including diabetes control and identifying potential complications that may affect breastfeeding.

**4. Emotional and psychological support:** Pregnancy and breastfeeding are an emotional challenge, especially for mothers with diabetes. Having a support network, whether from family, friends, or support groups, can be beneficial. Having a psychological support team is essential for good diabetes

control during this stage of a woman's life.

As a strategy for planning breastfeeding in women with diabetes, the following is included:

#### *Training on breastfeeding techniques:*

- Offer workshops or informative sessions on proper breastfeeding techniques.
- Instruct on how to initiate breastfeeding immediately after delivery and how to detect breastfeeding problems (latch and milk transfer problems, mastitis, cracks, milk blebs, etc.).

#### *Postpartum planning:*

- Establish a clear plan for the initiation and maintenance of breastfeeding after birth.
- Coordinate with a multidisciplinary team (doctors, nurses, nutritionists, lactation consultants, pediatricians) to monitor both maternal and infant health and offer the necessary tools.

#### *Prenatal colostrum banking:*

- Encourage prenatal colostrum expression before delivery (from the 37th week of pregnancy) if there is no medical contraindication.
- Provide information on how to express, store, and offer colostrum to the newborn without the method interfering with the initiation of BF.
- Ensure that mothers know the benefits of colostrum for the infant, especially in terms of immunity\* and nutrition.

*\* Impact of colostrum: research has shown that colostrum has immunological properties that can benefit infants, especially those whose mothers have medical conditions such as diabetes.*

#### *Continuous support:*

- Provide emotional and psychological

support to mothers during the breastfeeding process.

- Create support groups where mothers can share experiences and feelings, gaining confidence in their ability to breastfeed and in making their own decisions.

#### *Monitoring and adjustments:*

- Conduct regular follow-up to assess progress in breastfeeding and adjust the plan as needed.
- Monitor blood glucose levels and make dietary or therapeutic adjustments if necessary.

#### *Promotion of self-care:*

- Encourage healthy lifestyle habits that help mothers manage their diabetes during this stage, in which there is a great difference in glycemic variability and insulin needs.

## **BREASTFEEDING. BENEFITS FOR MOTHER AND BABY**

Breastfeeding offers numerous benefits for all infants, and in the case of a mother with diabetes, these benefits can be even more significant. In addition to the benefits of breastfeeding that we already know (it is easily digestible, it adjusts to the infant's needs due to its adaptive capacity, an emotional bond develops, optimal intellectual development of the infant, it prevents postpartum hemorrhages in the mother, etc.), but in the context of diabetes, the benefits go further, and EBF can become especially beneficial in infants of mothers with diabetes because it has the capacity to:

- Improve glucose management: breast milk can help regulate the infant's blood glucose levels.
- Reduce the risk of developing childhood obesity, which is crucial since children of diabetic mothers may have a higher risk of developing overweight.

- Protect against diseases: various »

» studies suggest that breastfeeding may have a protective effect against the development of autoimmune diseases, as it contains antibodies and other immunological components that help protect the infant against infections and diseases, although the exact mechanisms are not yet fully understood.

- Reduce the risk of type 2 diabetes mellitus: different studies suggest that babies exclusively fed with breast milk have a lower risk of developing type 2 diabetes mellitus in the future.

Of note, genetic predisposition plays a significant role in the development of type 1 diabetes mellitus. While it is true that breastfeeding can offer benefits, it does not eliminate the risk if there is a family history or associated genetic factors.

#### *Regarding the mother:*

- **Improves insulin resistance** and therefore facilitates the management of DM.
- Helps the uterus return to its initial state thanks to the baby's sucking and the contractions it causes in the uterus.

- Prevents postpartum hemorrhages.
- Reduces the risk of breast and ovarian cancer, hypertension, and cardiovascular diseases.
- Strengthens the mother-child bond, produces emotional well-being.
- **Protects** the mother from **DM** in GD.
- Improves the calcium content of bones upon reaching menopause.
- Promotes the recovery of pre-pregnancy weight. **D**



## CONCLUSIONS

Work prior to pregnancy, educating on breastfeeding, preparing and offering tools for a good start and maintenance of it, in addition to interdisciplinary work, would give a boost to the increase in breastfeeding rates, which is so important, especially in women with diabetes, given the benefits it entails for mother and baby.

Every drop counts.

## REFERENCES

1. Ramiro González M.D., Ortiz Marrón H., Arana Cañedo-Argüelles C., Esparza Olcina M.J., Cortés Rico O., Terol Claramonte M., et al. Prevalencia de la lactancia materna y factores asociados con el inicio y la duración de la lactancia materna exclusiva en la Comunidad de Madrid entre los participantes en el estudio ELOIN. *An Pediatr.* 2018;89:32–43. doi: 10.1016/j.anpedi.2017.09.002.
2. Asociación Española de Pediatría. Recomendaciones sobre lactancia materna del Comité de Lactancia Materna de la Asociación Española de Pediatría.
3. 16.Oribe M., Lertxundi A., Basterrechea M., Begiristain H., Santa Marina L., Villar M., et al. Prevalencia y factores asociados con la duración de la lactancia materna exclusiva durante los 6 primeros meses en la cohorte INMA de Guipúzcoa. *Gac Sanit.* 2015;29:4–9. doi: 10.1016/j.gaceta.2014.08.002.
4. <https://www.cambridge.org/core/journals/british-journal-of-nutrition/article/short-duration-of-breastfeeding-as-a-riskfactor-for-cell-autoantibodies-in-5-year-old-children-from-the-general-population/546DA9A6BDFC4E9EF3AEBE94D6308435>
5. <https://www.boe.es/buscar/doc.php?id=BOE-A-2024-18715>