

## **GOAT MILK-BASED FORMULA:**

### ANOTHER INFANT FEEDING OPTION?

In the United States, over 2.7 million infants rely on formula for some portion of their nutrition.

We typically think of infant formula as being made from cow or soy milk, but as of late 2023 there's a lesser-known third option: goat milk infant formula.

How does it compare to traditional infant formula in terms of nutrition, preparation, and taste?

### LET'S FIND OUT.

### WHY DO WE NEED INFANT FORMULA?



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The American Academy of Pediatrics and the World Health Organization advise that babies should receive only breast milk for the initial 6 months of their lives and continue breastfeeding while gradually introducing appropriate foods until age 2.

Although it is ideal for babies to be breastfed for a variety of reasons (nutritional profile, sharing of antibodies between mother and baby, protection for baby against short & long-term illnesses), there are **reasons why some can't or don't breastfeed:** 

- Issues with milk production and latching
- Concerns with infant weight & nutrient intake
- Mother taking medications during breastfeeding
- Insufficient parental leave & work support
- Cultural norms & overall lack of support

A family might decide to exclusively use infant formula if they are two fathers, have used a surrogate, or have adopted a child. It's also worth noting that there doesn't need to be a specific reason to stop breastfeeding; some mothers simply choose not to.

The majority of infants in the U.S. depend on infant formula to some extent for their nutritional needs.

### **WHAT FORMULA ARE WE USING NOW?**

Currently in the United States, the most common bases for infant formula include cow's milk and soy milk.



Soy milk-based formulas can serve as a suitable alternative for vegan babies and those with

galactosemia or congenital lactase deficiency.

### AS OF 2023:

There's also an alternative option available: infant formula based on goat milk. In July of 2023 the US FDA gave the green light for a goat milk-based infant formula and in October of 2023 the AAP stated that:

Goat milk-based infant formula is an appropriate source of nutrition for healthy term infants.









### SAFETY & REGULATORY APPROVAL



Results from a recent meta analysis offer confidence that **goat milkbased infant formulas, when compared to cow milk-based formulas, are safe and well received by infants who cannot be breastfed.** 

This meta analysis examines the impact of goat milk-based infant formula on growth and safety in infants. This analysis included four infant studies encompassing 670 infants in total. The findings indicated that **growth and safety indicators were comparable** between infants fed goat milk-based formulas and those fed cow milk-based formulas. In summary, the study concludes that **goat milk-based formulas are safe and appropriate for use in infants from birth onward.** 

*In vitro* research indicates that **goat milk proteins can be easier to digest** when compared with cow milk proteins, due to the less compact structure of the protein aggregate. However, we do not yet have comprehensive human data to definitively determine whether goat milk-based formulas provide distinct health advantages compared to cow milk-based formulas.

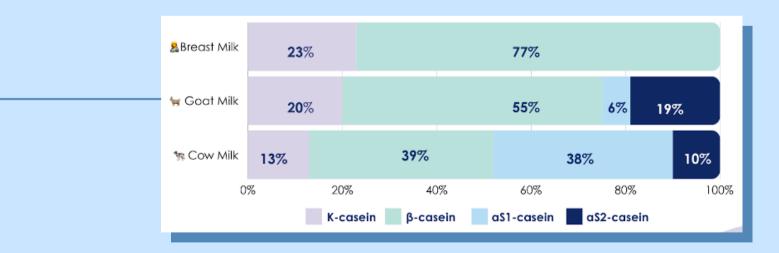


Kabrita stands out as the sole Europeanproduced goat milk-based infant formula that complies with all FDA requirements.



Kabrita, like many other infant formulas, adjusts its whey-to-casein protein ratio from 80:20 to 60:40 to **more closely mirror the ratio found in mature human breast milk**. *In vitro* research indicates that Kabrita goat milk-based formula is digested at a faster rate and more similar to breast milk compared to cow's milk formula.

Compositionally, goat's milk is more similar to mature human breast milk than cow's milk. Some research suggests that **this difference in protein composition may facilitate easier digestion for some infants.** 



The Kabrita goat milk formula incorporates a fat blend containing sn2-palmitic acid, mirroring the fat composition of human breast milk. Studies suggest this addition may **enhance calcium and fat absorption**, as well as **promote consistent stool formation** 

### COMPARING NUTRIENTS (2/3)



Similar to human breast milk, goat's milk contains oligosaccharides, which are nutrients in infants that function as prebiotics.

#### Goat milk contains 5x more oligosaccharides than cow milk.



In addition to the naturally occurring oligosaccharides found in goat milk, the Kabrita goat milk formula supplements their product with galacto-oligosaccharides. This addition is aimed at replicating the natural oligosaccharide content present in human breast milk.

Certain studies have indicated the anti-inflammatory properties of mixtures enriched in goat Milk Oligosaccharides (gMOS). Additionally, gMOS demonstrate prebiotic potential, particularly by fostering the growth of bifidobacteria preferentially.

However, it is worth mentioning that the **oligosaccharides currently added to infant formula differ structurally from those naturally occurring in human milk**, suggesting that their prebiotic and immunomodulatory effects may also vary.

### COMPARING NUTRIENTS (3/3)

Docosahexaenoic acid (DHA), an omega-3 fatty acid, and arachidonic acid (ARA), an omega-6 fatty acid, are vital long-chain polyunsaturated fatty acids found in human breast milk and are dependent on the mother's diet. They **serve as essential nutrients crucial for infant development.** 

Although experts recommend adding the fatty acids DHA and ARA to infant formula, only Europe requires it by law. This practice has been widespread for over two decades due to the recognized benefits of these nutrients for infant development.

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Maintaining a balanced ratio of DHA and ARA is crucial, as excessive DHA intake may hinder the benefits of ARA. Thus, it's recommended to include ARA in at least equal amounts to DHA.

Many infant formulas, including Kabrita's, are fortified with DHA and ARA.



DHA



# HOW DOES IT TASTE?

Based on independent sensory evaluations, Kabrita formula exhibits **noticeably fewer off-flavors when compared to cow's milk formulas.** Cow's milk formula was noted for its pronounced fishy and metallic taste, while **Kabrita tasted notably closer to the traditional "milk" flavor.** 

Many people report that this product does not have the traditional 'earthy' or 'goaty' taste that many goatbased products have.





### 1 CAN MY BABY HAVE THIS IF THEY HAVE A DIAGNOSED COW'S MILK PROTEIN ALLERGY (CMPA)?

**No.** If someone is allergic to cow's milk, there is a strong likelihood of experiencing an allergic reaction to goat's milk as well. The allergic reaction is due to the protein found in cow's milk, and there is a significant risk of cross-reactivity with goat's milk.

### 2 DO YOU PREPARE IT THE SAME WAY YOU WOULD COW-BASED INFANT FORMULA?

**Yes!** It is prepared in the same way. Note that the specific instructions written on each formula should be followed exactly as written! Formula preparation can vary from brand to brand, and country to country!

### **3 HOW DOES THE COST COMPARE?**

Compared to premium cow milk-based infant formulas, Kabrita Goat Milk-Based Infant Formula is slightly cheaper. Kabrita Goat Milk-Based Infant Formula comes in around the same price as the other goat milk-based infant formulas available on the US market via Enforcement Discretion (meaning these products are here as part of 'Operation Fly Formula' to help alleviate the infant formula crisis of 2022 and do not meet all the US FDA infant formula requirements).

### **IN SUMMARY...**



### **REGULATORY REVIEW:**

Goat milk-based infant formula, such as Kabrita, is emerging as an alternative option in the United States. Globally, goat milk-based infant formula has been enjoyed by babies for a long time (in the EU, for over a decade). **Kabrita is the sole European-produced infant formula based on goat milk that complies with all FDA requirements.** 

### **NUTRITION:**

The **Kabrita goat milk-based formula may offer certain nutritional advantages**, such as the presence of sn2-palmitic acid to enhance calcium and fat absorption and promote consistent stool formation, as well as the presence of goat oligosaccharides that have prebiotic potential, particularly by preferentially fostering the growth of bifidobacteria.

### TASTE:

Kabrita formula is **generally well-received in terms of taste** – it is noted for its absence of typical "earthy" or "goaty" flavors often associated with goat-based products.

Supported by the American Academy of Pediatrics, goat milkbased infant formula can be included among the safe and effective choices available for families, offering a valuable option for infant feeding.