

BYHEART

# Meet the First New Infant Formula to Rewrite the Recipe in Decades

Clinically proven, next-to-breast milk benefits and certified cleanest ingredients\*—*finally in the same bottle.*



For decades, every new infant formula brand has taken small steps towards developing a better bottle for baby—dialing up only one ingredient or benefit, relying on older clinical data—but ByHeart is about leaping.

- ✓ We patented a protein blend that gets closest to breast milk, by combining alpha-lactalbumin (the first US infant formula at breast milk levels) with lactoferrin and partially hydrolyzed proteins
- ✓ We proved next-to-breast milk benefits in the largest clinical trial by a new infant formula brand in over 15 years
- ✓ We're the very first easy-to-digest infant formula in the US with no soy, corn syrup, maltodextrin, or palm oil
- ✓ We're the first US infant formula to receive Clean Label Project certification, with their highest tier "Purity Award"

We worked with leading global experts in infant nutrition and breast milk research to rewrite the recipe

## OUR SCIENTIFIC ADVISORY BOARD



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\*Based on Clean Label Project, Purity Award certification

# Breast Milk is Our Blueprint

We spent over five years obsessing over breast milk—studying its nutrients, analyzing its unique benefits—and made it the blueprint for our infant formula.

## Our Patented Protein Blend

Our patented protein blend is designed to get closest to breast milk by combining functionality and tolerability using intact proteins and partially hydrolyzed proteins in a whey predominant ratio (80:20) for improved outcomes and to drive easy digestion for baby.

### WHAT'S IN OUR BLEND

- **Alpha-lactalbumin:** the most abundant protein in breast milk, known for its high proportion of essential amino acids.<sup>1</sup> We are the only US formula to provide it at breast milk levels.
- **Lactoferrin:** the most abundant protein in colostrum, known for its role in supporting the development of the immune system.<sup>2</sup>
- **Partially hydrolyzed whey proteins:** to mimic the hydrolysis of proteins in the mammary gland to support easy digestion.<sup>3</sup>

## Breast Milk Doesn't Skim Its Fats, *So Neither Do We*

We chose to use **organic, grass-fed whole milk** instead of the skim milk base traditionally used in infant formula, to retain naturally occurring nutrients (like cholesterol, sphingomyelin, and other milk fat globule membrane (MFGM) components) that support infants' development and growth.

## Our Carbs All Come from Lactose—*Just Like Breast Milk*

We use lactose as our formula's primary carbohydrate rather than added glucose like many other formulas, which often include corn syrup and maltodextrin and can change the composition of the gut microbiome.<sup>4</sup> Lactose and our lactose-derived prebiotic GOS work hand-in-hand to keep baby's gut balanced and digestion smooth, as well as supporting nutrient absorption.<sup>5, 6</sup>

## Our Patented Protein Blend Gets Closest to Breast Milk

60% more of breast milk's two most abundant proteins, Alpha-lac and Lactoferrin.

Breast Milk



ByHeart



Others



### WHY IT MATTERS

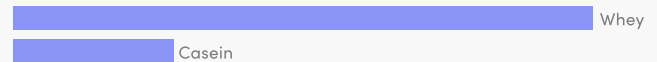
For easier digestion, nutrient absorption, immune and microbiome support.

Our 80:20 whey to casein ratio mirrors early breast milk.

Breast Milk



ByHeart



Others



### WHY IT MATTERS

For optimized protein digestion and absorption.

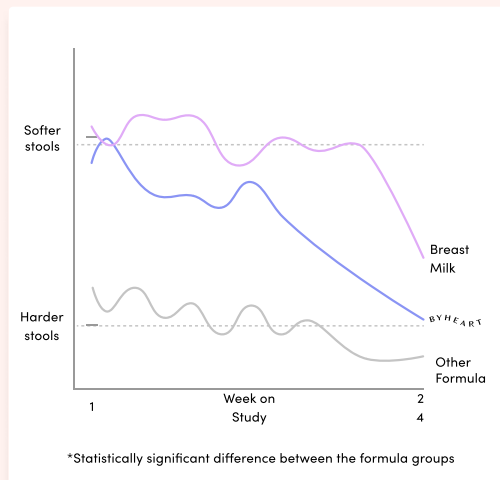
# Our Clinical Trial

To prove our formula's quality and safety, we conducted a double blind, randomized, controlled clinical trial in the US. With 311 infants enrolled and followed from birth (less than 14 days old) for 6 months, it was the largest clinical trial by a new infant formula brand in over 15 years. We even added a breast milk reference arm to see how we laddered up to nature's gold standard itself.

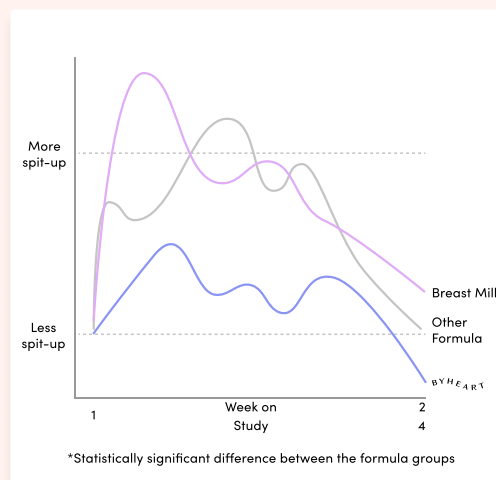
## The Results

### GASTROINTESTINAL TOLERANCE

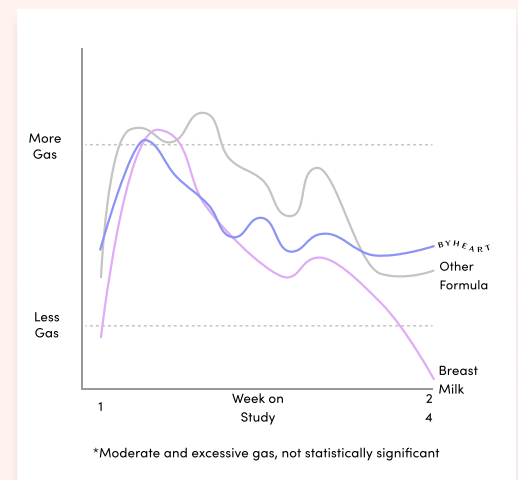
#### Softer Stools



#### Less Spit-Up



#### Less Gas



The addition of alpha-lactalbumin or hydrolyzed protein to infant formula reduces spit-up in infants.<sup>7,8</sup>

Whole milk has more of the triglyceride palmitic acid in the favorable sn-2 position than traditional vegetable oils, more palmitic acid in this position increases both fat and calcium absorption for improved stool consistency and bone density.<sup>9</sup>

Gastric emptying of whey protein is faster than casein.<sup>10</sup>

We don't add palm oil. Formulas with palm oil result in harder stool consistency and alterations in bone mineralization.<sup>11</sup>

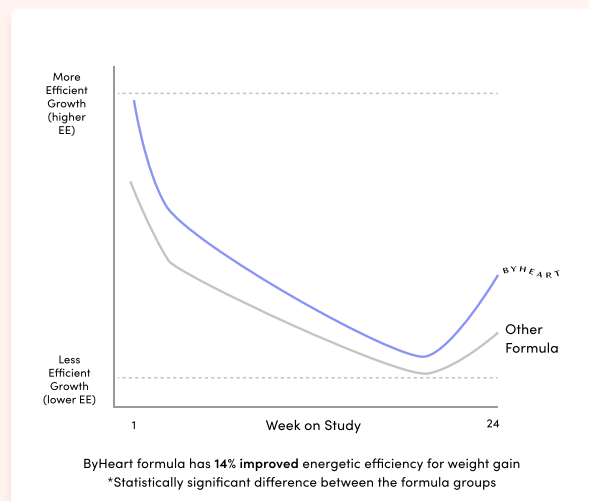
Adding GOS to infant formula results in softer stool consistency.<sup>5</sup>

Lactoferrin has been shown to promote the growth of several Bifidobacterium species.<sup>12</sup>

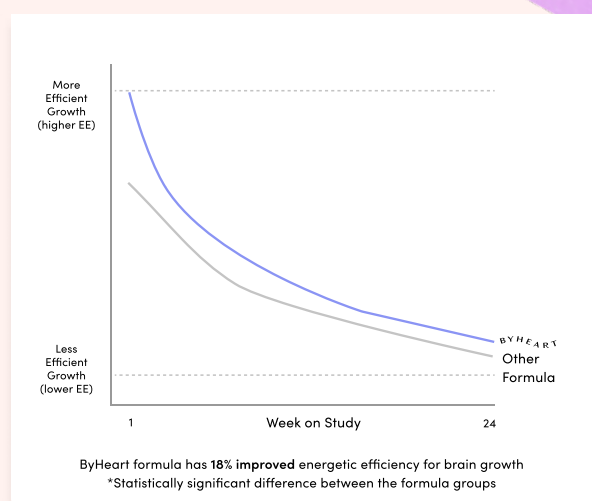
Based on advances in breast milk research, our formula is functional, clean, and gets closer to breast milk with clinical outcomes that prove its high-quality ingredients drive efficient growth and easy digestion.

## GROWTH

### More Efficient Weight Gain



### More Efficient Brain Growth



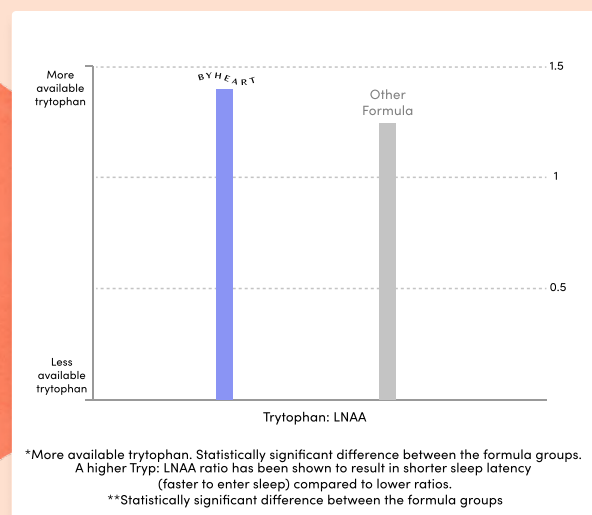
Our clinical trial showed that the high quality ingredients in our formula resulted in a higher energetic efficiency, which allowed infants to consume less formula and protein while achieving healthy growth. Energetic efficiency per ounce of formula was 14% higher for weight and 18% higher for head circumference.

Energetic efficiency (EE) is a measure of the impact of macronutrient components on growth.<sup>13</sup>

The organic, grass-fed whole milk in our formula supplies more of the fats that support brain development, like cholesterol and sphingomyelin.<sup>14</sup>

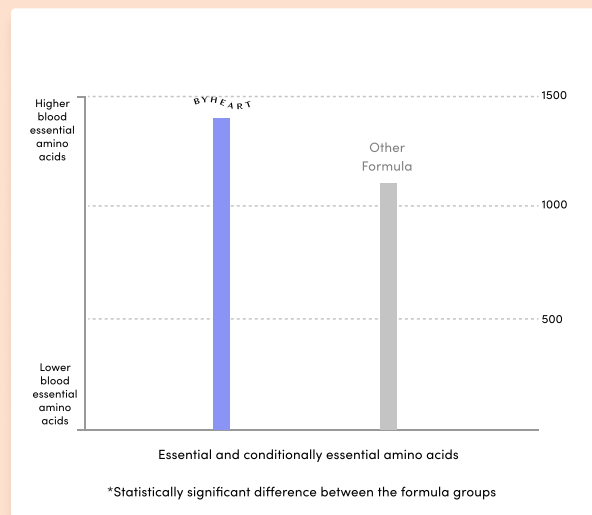
## AMINO ACID LEVELS

### Faster to Sleep



Alpha-lactalbumin is high in tryptophan, a precursor to serotonin. Higher amounts of available tryptophan decreases sleep latency in infants.<sup>15,16</sup>

### Enhanced Nutrient Absorption



Alpha-lactalbumin is known for its high proportion of essential and conditionally essential amino acids, and particularly as a source of tryptophan, typically the most limiting amino acid for infant growth.<sup>1</sup>

# Whole Nutrition Infant Formula

## NUTRIENTS PER 100 KCAL

(5 FL OZ, WHEN PREPARED AS DIRECTED)

SEE USE BY DATE AT  
THE BOTTOM OF CAN

<b>PROTEIN</b>	g	2	<b>WATER</b>	g	133
<b>FAT</b>	g	5.6	<b>LINOLEIC ACID</b>	mg	700
<b>CARBOHYDRATE</b>	g	10			

## VITAMINS

VITAMIN A	IU	300	NIACIN	mcg	1000
VITAMIN D	IU	60	FOLIC ACID	mcg	16
VITAMIN E	IU	2	PANTOTHENIC ACID	mcg	500
VITAMIN K	mcg	9	BIOTIN	mcg	3
THIAMIN (B1)	mcg	80	VITAMIN C		
RIBOFLAVIN (B2)	mcg	140	(ASCORBIC ACID)	mg	12
VITAMIN B6	mcg	60	CHOLINE	mg	26
VITAMIN B12	mcg	0.3	INOSITOL	mg	6

## MINERALS

CALCIUM	mg	78	COPPER	mcg	67
PHOSPHORUS	mg	46	IODINE	mcg	15
MAGNESIUM	mg	8	SELENIUM	mcg	2.8
IRON	mg	1	SODIUM	mg	36
ZINC	mg	0.7	POTASSIUM	mg	107
MANGANESE	mcg	15	CHLORIDE	mg	63

**INGREDIENTS:** ORGANIC GRASS-FED WHOLE MILK, ORGANIC LACTOSE, ORGANIC VEGETABLE OILS (ORGANIC HIGH OLEIC SUNFLOWER, ORGANIC LOW ERUCIC RAPESEED, ORGANIC COCONUT, ORGANIC SUNFLOWER), ORGANIC GALACTOOLIGOSACCHARIDES†, ALPHA-LACTALBUMIN\* WHEY PROTEIN, WHEY PROTEIN HYDROLYSATE, LESS THAN 1%: LACTOFERRIN°, DHA ALGAL OIL\* (SCHIZOCHYTRIUM), MORTIERELLA ALPINA OIL‡, VITAMIN A PALMITATE, VITAMIN D3, VITAMIN E ACETATE, VITAMIN K1, THIAMIN HYDROCHLORIDE, RIBOFLAVIN, VITAMIN B6 HYDROCHLORIDE, VITAMIN B12, NIACINAMIDE, CALCIUM PANTOTHENATE, FOLIC ACID, BIOTIN, ASCORBIC ACID, MIXED TOCOPHEROLS, ASCORBYL PALMITATE, L-CARNITINE, INOSITOL, CALCIUM PHOSPHATE, SODIUM CITRATE, CALCIUM CARBONATE, POTASSIUM CITRATE, FERROUS SULFATE, POTASSIUM CHLORIDE, MAGNESIUM PHOSPHATE, CALCIUM CHLORIDE, ZINC SULFATE, CUPRIC SULFATE, MANGANESE SULFATE, POTASSIUM IODIDE, SODIUM SELENATE, POTASSIUM BICARBONATE, CHOLINE CHLORIDE. **CONTAINS:** MILK

\* FIRST U.S. INFANT FORMULA AT BREAST MILK LEVELS

° A KEY PROTEIN FOUND IN BREAST MILK AND COLOSTRUM

† A PREBIOTIC FIBER

‡ OMEGA-3 FATTY ACID

§ OMEGA-6 FATTY ACID

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131 VARICK STREET

11TH FLOOR

NEW YORK, NY 10013

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JOIN THE

## Better for Babies Network



Help us transform infant nutrition and ensure that access to quality nutrition and education is possible for more physicians and more families. Join our medical community for exclusive events with fellow experts, first access to infant nutrition education programs, opportunities to get involved with our research, and more.

### We're Continuing to Study Nutrition in Infants

We want to continue to evolve our science and investigate early nutrition biomarkers for long term outcomes—and we would love your help. We're currently accepting new participants to our long term study on babies' health. Get in touch to learn more, by emailing [medical@byheart.com](mailto:medical@byheart.com).



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