

Formula Algorithm for Infants on Georgia WIC

Stanley Cohen, MD, FAAP
Tatyana Hofmekler, MD, MSc
Kylia Crane, RDN, LD

Revised 2022

In accordance with federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, this institution is prohibited from discriminating on the basis of race, color, national origin, sex (including gender identity and sexual orientation), disability, age, or reprisal or retaliation for prior civil rights activity.

Program information may be made available in languages other than English. Persons with disabilities who require alternative means of communication to obtain program information (e.g., Braille, large print, audiotape, American Sign Language), should contact the responsible state or local agency that administers the program or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339.

To file a program discrimination complaint, a Complainant should complete a Form AD-3027, USDA Program Discrimination Complaint Form which can be obtained online at: <https://www.usda.gov/sites/default/files/documents/ad-3027.pdf>, from any USDA office, by calling (866) 632-9992, or by writing a letter addressed to USDA. The letter must contain the complainant's name, address, telephone number, and a written description of the alleged discriminatory action in sufficient detail to inform the Assistant Secretary for Civil Rights (ASCR) about the nature and date of an alleged civil rights violation. The completed AD-3027 form or letter must be submitted to USDA by:

- (1) mail: U.S. Department of Agriculture
Office of the Assistant Secretary for Civil Rights
1400 Independence Avenue, SW
Washington, D.C. 20250-9410;
- (2) fax: (833) 256-1665 or (202) 690-7442; or
- (3) email: program.intake@usda.gov

This institution is an equal opportunity provider.

Georgia Chapter

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN®



GEORGIA
WIC
Women, Infants & Children

DPH
GEORGIA DEPARTMENT OF PUBLIC HEALTH

Formula Algorithm for Infants on Georgia WIC

Stanley Cohen, MD, FAAP;
Tatyana Hofmekler, MD, MSc; and Kyliya Crane, RDN, LD

Tier 1

Breastmilk¹
"Routine" Cow's Milk Based Protein Formula

Tier 2

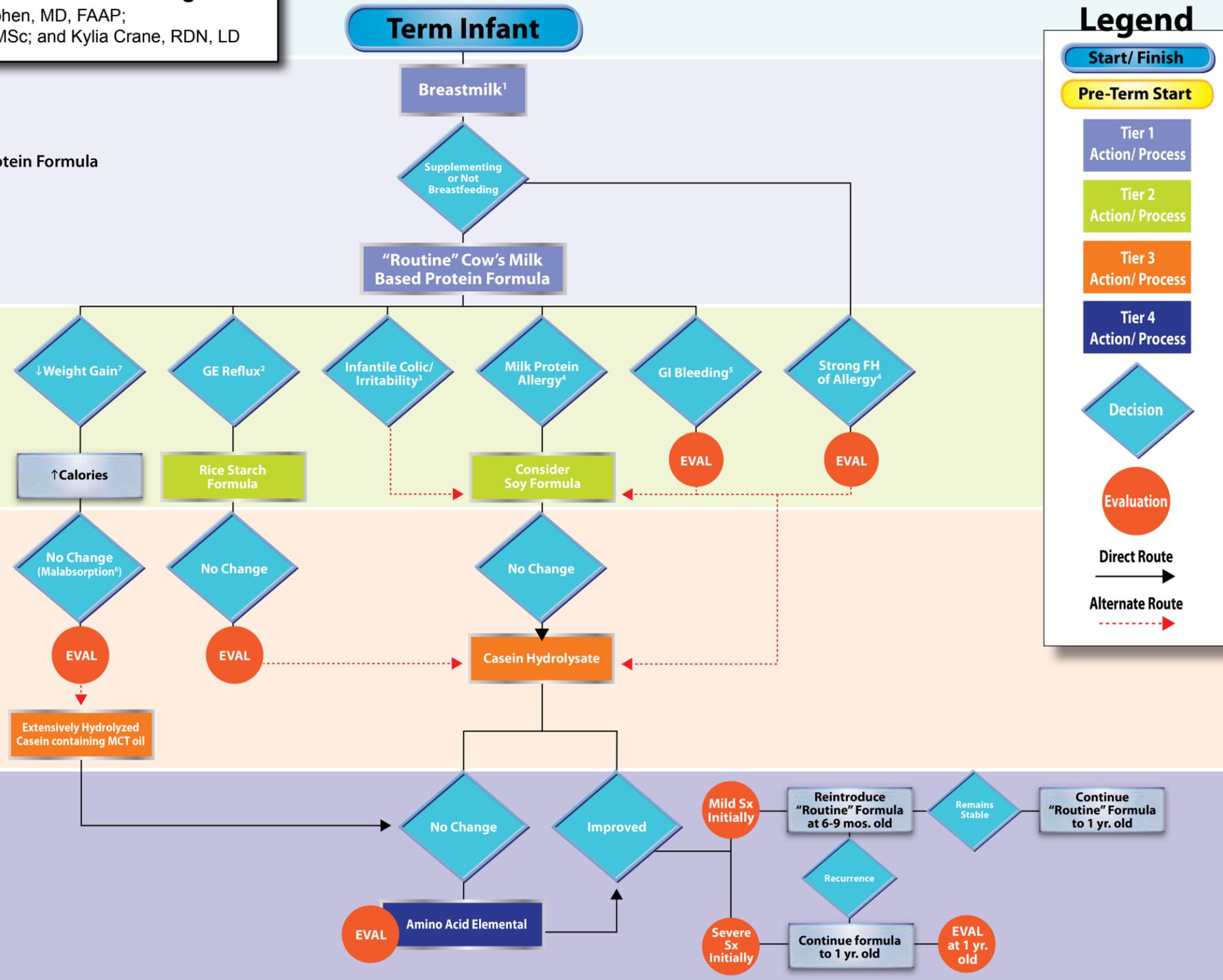
Rice Starch Formula
Soy Formula

Tier 3

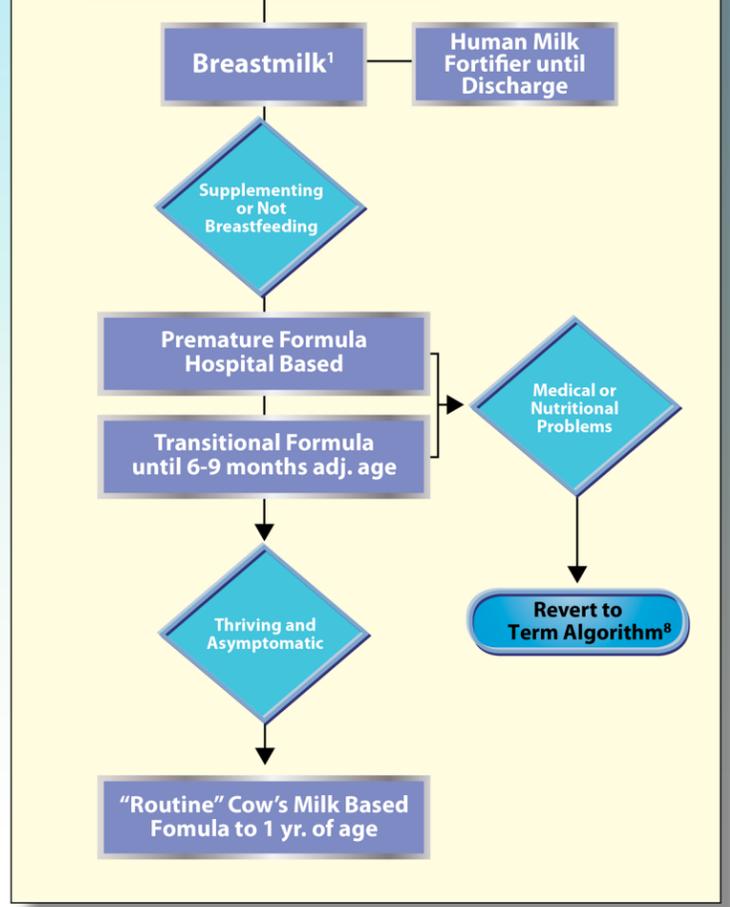
Extensively Hydrolysed Casein containing MCT oil
Casein Hydrolysate

Tier 4

Amino Acid Elemental



Pre Term Infant (<37 weeks)



Georgia Chapter

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN®



The Formula Algorithm for Infants on Georgia WIC and Resource Guide, Revised 2022, was developed by Stanley Cohen, MD, FAAP, Tatyana Hofmekler, MD, MSc and Kyliya Crane, RDN, LD of the Georgia Chapter of the American Academy of Pediatrics for the Georgia Special Supplemental Nutrition Program for Women, Infants and Children (WIC). This algorithm and resource guide may be reproduced with written permission from the Georgia Special Supplemental Nutrition Program for Women, Infants and Children (WIC) and with acknowledgement of authorship.

Whole Cow Milk with Vitamin D should be started at 1 year of age unless formula is indicated.

- Breastmilk should be promoted as the optimal feeding method. Breastfeeding should be considered and encouraged when common conditions arise with guidance from a physician. This guide can assist with prescribing formulas when breastfeeding is not desired, if a supplemental formula is introduced, or if breastfeeding is medically counter indicated.
- Gastroesophageal reflux (ICD-10 K21.0, K21.9) is common in infants. The concern arises when the reflux causes weight loss, failure to thrive, feeding difficulties, or if it is associated with intermittent torticollis, respiratory illnesses/symptoms. Rice starch formulas are effective but is limited if a gastric acid blocker is simultaneously used. Alternatively, infant cereal can be added to the current formula increasing caloric density by adding five(5) calories per teaspoon of infant cereal. If these products are not effective, a hydrolyzed product can be used.
- Infantile colic is distinguished by inconsolable irritability for approximately 2-4 hours per day between three (3) weeks and four (4) months of age. When irritability occurs outside those time parameters, other conditions including allergies, Gastroesophageal reflux, or infection should be considered. Irritability is so non-specific it can represent reflux, allergy, intestinal spasm, or a non-GI cause. Lactose intolerance is either genetic (usually starting in children after 5 years of age and rarely in infancy) or secondary and transient beginning as a result of damage to the intestinal villi (in which case the cause should be identified). Lactose-reduced formulas have only been helpful in exceedingly rare situations. Consider a trial of hydrolysate formula for possible milk protein allergy (also alleviating lactose-intolerance). Should that trial fail, reevaluation and progression along the algorithm are warranted.
- Formula-induced allergies may present with a rash (atopic dermatitis/eczema), vomiting, wheezing, and/or cough. Allergies should be diagnosed carefully so that infants are not excluded from some formulas unnecessarily. Cow milk allergy (ICD-10 Z91.011, K52.5) is the predominant cause. Studies demonstrate that over half of infants with a cow's milk allergy or non-IgE reactions to milk will tolerate soy. Soy formulas are less expensive than employing an extensively hydrolyzed casein formula. *However, there is evidence that soy formula may lead to developmental changes later in puberty, making their use more cautionary. If a strong family history of allergy exists (evidence of atopy marked by asthma, eczema, allergic rhinitis, or food allergy in a first-degree relative) there is growing evidence that early introduction of allergenic foods is protective against future IgE allergies. Thus, remaining on a cow's milk-based formula is appropriate for most. However, this is evolving research and the physician can use a soy formula or an extensively hydrolyzed casein formula in patients with strong family history of allergies. Soy formula remains an area of controversy, and as a result, either option is warranted.
- Rectal bleeding (ICD-10 K62.5) in an infant, when an infection is not the cause, can result from infant formula/food or a food in the mother's diet (usually milk or dairy products). Prompt evaluation, possibly including endoscopy, is usually needed to differentiate the cause. The benign condition of lymphoid hyperplasia must be distinguished from Food Protein-Induced Enterocolitis (FPIES), which can result in severe vomiting, diarrhea, dehydration and potentially in life-threatening shock. If the mother is supplementing, consider eliminating intact milk based proteins from the mother's diet. The greater cross-reactivity to soy (30-64%) necessitates quick transition to an extensively hydrolyzed casein formula.
- Malabsorption (ICD-10 K90.4) results in partially digested fat in the stool and often in distention, weight loss, a lack of weight gain or failure to thrive. The underlying cause should be identified so it can be treated effectively and resolved when possible. Changing the formula is often only a temporary measure, but until evaluation can occur, an extensively hydrolyzed casein formula with medium chain triglycerides (MCT) would be indicated. The presence of failure to thrive may implicate other factors or conditions to consider - these children should be promptly referred for evaluation if they do not respond to a formula change within days, at which point an amino acid formula may be indicated.
- Decreased weight gain may result from numerous causes and is often associated with inadequate caloric intake or caloric loss (vomiting or diarrhea). Diarrhea, malabsorption, or vomiting require a thoughtful evaluation and may require a temporary or enduring formula change. When these symptoms are not present, and inadequate intake is the predominant symptom, formula change is generally ineffective. Carefully guided concentration of the formula is recommended.
- Soy protein-based formulas are not recommended for preterm infants. American Academy of Pediatrics, Committee on Nutrition. Use of Soy-Protein-Based Formulas in Infant Feeding. Pediatrics. 2008. Vol 121/Issue 5.
- Note: It is usually unnecessary to change formulas because of less frequent or difficult bowel movements. High sugar syrup and prune juice can loosen stools, but in doing so, they often cause considerable gas and discomfort. Extra water (2-4 oz.) during the day, glycerin suppositories and/or a small amount of a laxative, such as dioctyl sodium succinate, may be useful as the first option for constipated infants.
- The algorithm and resource guide can be used to assist pediatricians and families in finding alternative formulas to fit nutritional needs within the corresponding formula category tiers. Additionally, Georgia WIC's website, wic.ga.gov, provides current information on formula resources and any applicable recalls.

Formula Algorithm for Infants on Georgia WIC Resource Guide

Stanley Cohen, MD; Tatyana Hofmekler, MD, MSc; & Kyla Crane, RDN, LD

Table 2 Pre-Term Infant on other side →

Table 1) Term Infant 20 Calorie Formulas*

Tier	Formula Category	WIC Approved Formula	Manufacturer	Form	Size	Composition	Medical Documentation Required	Indication/ICD-10 (Other potential diagnoses may be indicated and are not limited to only those listed)
Tier 1	"Routine" Cow's Milk Based	Enfamil® Infant	Mead Johnson Nutrition	Powder	12.5 oz.	20 kcal per fl oz., 60:40 whey-to-casein ratio, intact protein, lactose, soy oil, prebiotics, Docosahexaenoic Acid (DHA)	No	Healthy term infants who are not exclusively breastfed Kosher and Halal
				Concentrate	13 oz.			
				Ready to Use	32 oz.			
Tier 2	Soy	Enfamil® ProSobee®	Mead Johnson Nutrition	Powder	12.9 oz.	20 kcal per fl oz., soy protein isolate, dairy-free, lactose free, DHA	No	Parental Request Kosher and Halal Vegetarian / Vegan Families Cow's milk allergy / Z91.011 Galactosemia / E74.21 Lactose Intolerance/ E73.9 Galactosemia/E7421
				Concentrate	13 oz.			
				Ready to Use	32 oz.			
	Rice Starch	Enfamil® A.R.™	Mead Johnson Nutrition	Powder	12.9 oz.	20 kcal per fl oz., 20:80 whey-to-casein ratio, lactose, rice starch, maltodextrin, prebiotics	No	Effective August 2022, Georgia WIC will no longer require medical documentation for the issuance of Enfamil A.R. contract formula for infants. Gastro-Esophageal Reflux (GER)/Gastro-Esophageal Reflux Disease (GERD) GERD with esophagitis / K21.0 GERD without esophagitis / K21.9
				Ready to Use	2 oz.			
					8 oz.			
			Ready to Use	32 oz.				
Tier 3	Casein Hydrolysate	Gerber® Good Start® Extensive HA®	Nestle Nutrition	Powder	14.1 oz.	20 kcal per fl oz., hypoallergenic, 100% whey protein, 49% MCT oil, 90% maltodextrin, Probiotic B. Lactis, DHA	Yes	Cow's milk allergy / Z91.011 (try soy except if strong family history of allergy) Soy protein allergy / Z91.018 Food Protein-Induced Enterocolitis (FPIES) / K52.21 Malabsorption / K90.4
		Nutramigen®	Mead Johnson Nutrition	Concentrate	13 oz.	20 kcal per fl oz., hypoallergenic, lactose-free, corn syrup solids, modified corn starch		
				Ready to Use	2 oz. 32 oz.			
		Nutramigen® with probiotic LGG	Mead Johnson Nutrition	Powder	12.6 oz.	Same composition as Nutramigen with probiotic Lactobacillus GG (Only in powdered form)		
	Similac® Alimentum®	Abbott Nutrition	Powder	12.1 oz. 16 oz.	20 kcal per fl oz., hypoallergenic, 70:30 whey-to-casein ratio, lactose-free, sucrose, modified tapioca starch, 33% Medium Chain Triglyceride (MCT) oil			
			Ready to Feed	8 oz. 32 oz.				
	Extensively Hydrolyzed Casein Containing MCT Oil	Pregestimil®	Mead Johnson Nutrition	Powder	16 oz.	20 kcal per fl oz., hypoallergenic, lactose-free	Yes	Malabsorption / K90.4
				Ready to Use	2 oz.			
Tier 4	Amino Acid Elemental	Alfamino® Infant	Nestle Nutrition	Powder	14.1 oz.	20 kcal per fl oz., hypoallergenic, free amino acid formula, lactose-free, gluten-free, fat blend containing MCT oil	Yes	Short bowel syndrome / K91.2 Necrotizing enterocolitis / P77.9 Eosinophilic esophagitis / K20.0 Severe allergy to cow's milk / Z91.011 with failure to Tier 3 formula Multiple food protein intolerance / K52.21 Gastrointestinal (GI) Impairment / K92.9 Malabsorption / K90.4
		EleCare®	Abbott Nutrition	Powder	14.1 oz.	20 kcal per fl oz., amino acids, sucrose, soy, and gluten-free, hypoallergenic, 33% MCT oil		
		Neocate® Infant DHA/ARA	Nutricia	Powder	14 oz.	20 kcal per fl oz., hypoallergenic, amino acids, dairy free, sucrose, soy-free, gluten-free, MCT oil		
		PurAmino™	Mead Johnson Nutrition	Powder	14.1 oz.	20 kcal per fl oz., 100% free amino acids, MCT oil		

State WIC agencies are required by law to competitively bid infant formula rebate contracts with formula manufacturers in which the manufacturers provide a rebate for formula purchased by WIC participants. This translates into more women, infants, & children who can receive WIC benefits. The current WIC Formula Rebate Contract is with Mead Johnson Nutrition. *For formula fed infants that were delivered preterm, early term, and term, deciding the calorie density/nutrient content of the formula (20-30 kcal) should be determined based on the evaluation and weight of the infant. The following formulas are rebated and DO NOT require Medical Documentation: Enfamil Infant, Enfamil ProSobee, Enfamil Gentlease, & Enfamil AR. Enfamil 24 is a rebated contract formula however it DOES require Medical Documentation.

Formula Algorithm for Infants on Georgia WIC Resource Guide

Stanley Cohen, MD; Tatyana Hofmekler, MD, MSc; & Kyla Crane, RDN, LD

Table 1 Term Infant
on other side →

Table 2) Pre-Term Infant 20-30 Calorie Formulas*

Category	WIC Approved Product	Manufacturer	Form	Size	Composition	Medical Documentation Required	Indication/ICD-10
Human Milk Fortifier	Enfamil® Human Milk Fortifier Acidified Liquid	Mead Johnson Nutrition	Liquid	5 mL vial	Commercially sterile liquid, contains milk & soy ingredients, MCT oil	Yes	Intended for breast-fed babies who were born prematurely or with a low birth weight as a nutritional supplement added to human milk Prematurity / Low Birth Weight / P07.2, P07.3, P07.10, P07.14-P07.18
	Enfamil® Human Milk Fortifier	Mead Johnson Nutrition	Powder ¹	0.71 g packet	Contains milk & soy ingredients, MCT oil	Yes	Intended for breast-fed babies who were born prematurely or with a low birth weight as a nutritional supplement added to human milk Prematurity / Low Birth Weight / P07.2, P07.3, P07.10, P07.14-P07.18
	Similac® Human Milk Fortifier	Abbott Nutrition	Powder ¹	0.9 g	Powdered, contains milk & soy ingredients	Yes	Intended for breast-fed babies with a low birth weight as a nutritional supplement added to human milk Prematurity / Low Birth Weight / P07.2, P07.3, P07.10, P07.14-P07.18
Premature Formulas 24 Cal with increased amounts of protein, vitamins & minerals ²	Enfamil® Premature 20, 24, 30	Mead Johnson Nutrition	Ready to Use	2 oz.	60:40 whey -to-casein ratio; corn syrup solids, lactose, 40% MCT oil, increased protein, calcium, phosphorus, & vitamin D	Yes	Preterm/low birth weight infants with increased calorie, protein, vitamin, & mineral requirements. Prematurity / Low Birth Weight / P07.2, P07.3, P07.10, P07.14-P07.18
	Similac® Special Care® 20, 24, or 30 with Iron	Abbott Nutrition	Ready to Feed	2 oz.	Non-fat milk, whey protein concentrate, corn syrup solids, lactose, 50% MCT oil, Lutein, increased protein, calcium, phosphorus, & vitamin D	Yes	Preterm/low birth weight infants with increased calorie, protein, vitamin, & mineral requirements. Prematurity / Low Birth Weight / P07.2, P07.3, P07.10, P07.14-P07.18
Transitional Formulas 22 Cal with increased amounts of protein, vitamins & minerals ²	Enfamil® NeuroPro™ Enfacare	Mead Johnson Nutrition	Powder ¹	12.8 oz.	Non-fat milk, whey protein concentrate, corn syrup solids, lactose, MCT oil, Lutein, increased calcium, phosphorus, & vitamin D	Yes	Preterm/low birth weight infants with increased calorie, vitamin, & mineral requirements. Prematurity / Low Birth Weight / P07.2, P07.3, P07.10, P07.14-P07.18
				13.6 oz.			
	Ready to Use	2 oz.					
	Similac® Neosure®	Abbott Nutrition	Powder ¹	13.1 oz.	Non-fat milk, whey protein concentrate, corn syrup solids, lactose, MCT oil, increased calcium, phosphorus, & vitamin D	Yes	Preterm/low birth weight infants with increased calorie, vitamin, & mineral requirements. Prematurity / Low Birth Weight / P07.2, P07.3, P07.10, P07.14-P07.18
Ready to Feed			2 oz.				
			32 oz.				

¹ Enterobacter sakazakii Infections Associated with the Use of Powdered Infant Formula - Tennessee, 2001. The Centers for Disease Control and Prevention (CDC) MMWR 2002(Apr 15):51:14;298-300.

Available at <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5114a1.htm>

² To bridge the change from preterm to standard infant formulas in formula-fed infants, "transitional" formulas with intermediate nutrient density have been developed for feeding the preterm infant as weight approaches 2000 g and the time of hospital discharge nears. These formulas may be mixed to 22 or 24 kcal/oz. In general, there is a paucity of data on what to feed the preterm infant after hospital discharge, especially if the goal is to achieve "catch-up" growth. How fast these preterm infants (and especially those born small for gestational age) should demonstrate catch-up growth after hospital discharge is an area of critical need of research given the increased risk of these infants developing metabolic syndrome later in life. Pediatric Nutrition Handbook, AAP2009

Adapted from Source: Nutrition4Kids.com, Stanley Cohen MD and Bailey Koch, RD, CSP