

Probiotics and Prebiotics

Digestive Microorganisms

What are probiotics? Probiotics are microorganisms (live bacteria) that have a beneficial effect on our health. The microorganisms most frequently considered probiotics are strains of lactobacilli and bifidobacteria. However, there are many different beneficial species (or strains) in the human digestive tract (also known as the gut or intestine). Probiotics may be taken as a powder or in capsule form; probiotics are also found in fermented foods, like yogurt, kefir, kimchi, sauerkraut, miso and tempeh.

What are prebiotics? Prebiotics promote the growth of healthy bacteria in the digestive tract. They actually serve as food for probiotics. Bananas, onions, garlic, leeks, artichokes, asparagus, oatmeal and legumes are all considered prebiotics.

Humans are dependent on certain gut microorganisms for optimal health. **What do digestive microorganisms do?**

- They **break down undigested food**. This releases micronutrients (like vitamin K) so we can then absorb and use them.
- They **defend the digestive tract** from invasion by harmful microorganisms by competing with them.
- They **stimulate the immune system of the digestive tract**. This maintains a healthy balance that aids in the defense against harmful pathogens. This healthy balance is also involved in maintaining **oral tolerance** (when the digestive tract knows that the food we eat is foreign to our bodies but is harmless and can be safely allowed to enter our body).

Research indicates that symptoms of a food allergy or sensitivity in infants (especially eczema, an allergic rash) **may** be reduced when:

- Pregnant mothers maintain a good bacterial balance in their digestive tract by taking certain strains of probiotics, and/or
- Infants are given probiotics directly to impact their intestinal flora.

There is NOT agreement on which strains are the most helpful, and whether certain geographic regions are more likely to be helped by a certain strain. Research continues!

Specific Probiotic Products

Gerber SOOTHE contains **one strain of bacteria** (*Lactobacillus reuteri*) that is found in the intestines of healthy breastfed babies. This strain has been shown in a few small research studies to result in less crying (“colic”), spitting up and constipation in both breastfed and formula fed infants. It is an oil-based product that is given via spoon. Gerber SOOTHE is available at drug stores. (This strain is NOT present in the Therbiotic Infant Formula, but IS present in both LifeSpace Powders described below.)

Klaire Labs Therbiotic Infant Formula is a **mixture of 10 different bacteria** (10 strains) of Lactobacilli and Bifidobacteria that are normally found in a healthy breastfed infant’s intestines. Several of the bacteria are felt to help the immune system in the gut wall learn to tolerate foreign proteins – especially lactobacillus rhamnosus, which has been shown to decrease the allergic skin rash called eczema in infants and toddlers. Some mothers have told us they feel their baby has also experienced improvement in other food sensitivity symptoms, but this has not been scientifically proven. This probiotic preparation may also be a good choice if you or your baby have recently been on antibiotics and you wish to replenish the good bacteria in your digestive system which may have been decreased by the antibiotics. The infant probiotic comes in a powder, which can be mixed with breastmilk or



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formula and given once a day for infants 6-12 months of age. Per the manufacturer: "*If the infant or child has a medical condition, taking prescription drugs, or under the age of 6 months, consult your healthcare professional before using this product.*" **This product is available at MilkWorks.**

LifeSpace Probiotic Powder for Infant is a powder made in Australia containing 6 strains, INCLUDING *Lactobacillus reuteri* (see Gerber SOOTHE info), and is recommended by the manufacturer for infants from 1-6 months old.

LifeSpace Probiotic Powder for Baby is a formulation of 10 strains meant for 6-36 months. **Both of these products are available at MilkWorks.**

Probiotics containing multiple strains may be preferred if you are wanting to try to improve the microflora after your baby was born via C-section or has received antibiotics. *It is fine to give both the Therbiotic Infant Formula and Gerber SOOTHE products at the same time. If giving LifeSpace Probiotic (infant or baby), it should not be necessary to give an additional probiotic.*

MilkWorks also carries two products formulated for adults:

LifeSpace Probiotic for Pregnancy and Breastfeeding contains 15 strains of bacteria felt to be beneficial to pregnant and lactating women.

Therbiotic Complete contains high doses of 7 strains of Lactobacilli, 4 strains of Bifidobacteria and *Streptococcus thermophiles* for mothers who feel they need a more comprehensive probiotic to optimize their gut health (8 of these strains are the same as found in the Infant formulation).

Therbiotic brands contains no allergic ingredients and are not grown on any ingredients that are likely to cause a reaction in individuals who are highly allergic. They are dairy, corn, soy, gluten and casein free, and contain no sugar, starch, artificial sweeteners, flavors, salicylates or preservatives. Gerber SOOTHE drops contain sunflower oil, medium chain triglyceride oil, and silicon dioxide. LifeSpace probiotics contains a small amount of Lactoferrin (cow's milk derived), but no gluten, yeast, egg, artificial colors and flavors, fructose or preservatives.

How to Handle and Store Therbiotic Probiotics:

Refrigeration is recommended, but the capsules and infant powder are stable at room temperature for short periods of time. If you are traveling, carry only the amount that you will consume. You may keep them outside a refrigerator for a week or two at room temperature.

- Store bottles in the refrigerator with the cap tightly closed whenever possible.
- Avoid handling the capsules and putting them back in the bottle.
- Use a dry spoon to measure the infant powder and do not dip your finger into the bottle.
- Do not mix with hot food or beverages. High temperatures will kill the live microorganisms. Mix or take the probiotics with cold or slightly warm liquids or foods.

How to Handle and Store LifeSpace Probiotics:

- Store in a cool, dry place below 86 degrees F.
- Add to baby's bottle immediately prior to consumption. Mix powder well, ensuring all powder has dispersed/dissolved fully.
- Do not heat milk after adding probiotic powder.

All probiotic products are live cultures of friendly bacteria. Their effectiveness can be adversely impacted by prolonged exposure to high temperatures and humidity.

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