

# Probiotic Formulas

## Notes on usage

These probiotic formulas maintain the beneficial bacteria in the GI tract. The microflora in the GI tract often becomes depleted by antibiotic use or imbalanced by poor diet choices. Further complications can arise when the opportunistic microorganisms feed off of undigested food molecules, creating gas and releasing toxic waste into the blood stream.

### How can the use of probiotics impact overall health?

- **Digestive Support** – Beneficial bacteria produce enzymes such as protease, lipase, and lactase to further assist with protein and fat digestion as well as reduce problems associated with lactose intolerance. Probiotics also produce B vitamins, particularly folic acid and B12, which are biocatalysts in food digestion.
- **Immune Support** – Probiotics produce the natural antibiotic-like substance acidophilin and inhibit the growth of toxin producing microorganisms. Probiotics aid in the production and augmentation of immune bodies and their functions.
- **Elimination** – Probiotics act as natural stool softeners and facilitate healthy and timely elimination of waste.

### General Indications

- Prevention and Wellness
- Digestive Disorders
- Constipation
- Diarrhea
- Inflammatory Bowel Disorders
- Gas and Bloating
- Dysbiosis
- Frequent antibiotic use
- Weakened immunity
- Lactose Intolerance
- Viral / Bacterial Infections
- Yeast infections

### General Information

The Probiotic formulas are:

- in cellulose capsules (Transbiotic™ is in a Delayed Release capsule)
- safe during pregnancy and lactation
- safe for pets
- contains no known gluten
- GI tract stable and require no enteric coating (store under refrigeration to maintain optimum activity)

### Special Notes

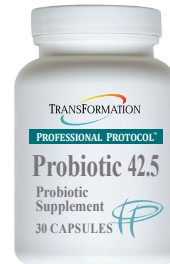
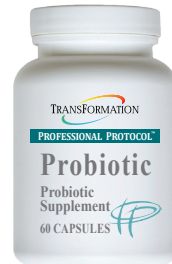
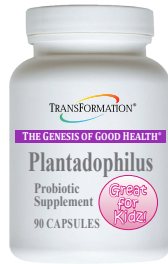
- Most probiotics from *Lactobacillus* are acid stable and survive the GI tract. However, some probiotic products have an enteric coating to enhance shelf life and/or eliminate the need for refrigeration. TEC prefers refrigeration over enteric coating and uses highly stable probiotic strains. The bacteria are dormant at low temperatures and when introduced to the warm environment of the human GI tract, they become live cultures and colonize in the human GI tract.
- “Lacto” bacillus denotes lactic acid-producing or acid-loving. They prefer a pH of 6.5-6.8. “Lacto” does not indicate a relation to lactose or dairy, as is commonly misunderstood.

### Dosing

- The recommended usage listed on the bottles is maintenance dosage. For therapeutic dosage, more may be taken based on need.



# Probiotic Formulas



Genus	Species	Plantadophilus	Probiotic	Probiotic 42.5	Transbiotic™
<i>Lactobacillus</i>	<i>Plantarum</i>	2,000,000,000 cfu	3,000,000,000 cfu	8,250,000,000 cfu	250,000,000 cfu
<i>Lactobacillus</i>	<i>Acidophilus</i>		1,000,000,000 cfu	6,667,000,000 cfu	250,000,000 cfu
<i>Lactobacillus</i>	<i>Salivarius</i>		300,000,000 cfu	6,500,000,000 cfu	
<i>Bifidobacterium</i>	<i>Longum</i>		200,000,000 cfu	6,000,000,000 cfu	
<i>Bacillus</i>	<i>Coagulans</i>		210,000,000 cfu	5,500,000,000 cfu	
<i>Lactobacillus</i>	<i>Casei</i>		225,000,000 cfu	1,500,000,000 cfu	250,000,000 cfu
<i>Bifidobacterium</i>	<i>Bifidum</i>			5,000,000,000 cfu	
<i>Lactobacillus</i>	<i>Rhamnosus</i>			1,500,000,000 cfu	
<i>Bifidobacterium</i>	<i>Infantis</i>			1,000,000,000 cfu	
<i>Lactobacillus</i>	<i>Bulgaricus</i>			1,000,000,000 cfu	
<i>Bacillus</i>	<i>Subtilis</i>				1,000,000,000 cfu
Jerusalem Artichoke			20 mg	10 mg	
Lactoferrin			10 mg		
PreforPro®					15 mg
<b>TOTAL ACTIVITY (per capsule)</b>		<b>2,000,000,000 cfu (2 billion cfu)</b>	<b>5,105,000,000 cfu (&gt; 5 billion cfu)</b>	<b>42,917,000,000 cfu (&gt; 42.5 billion cfu)</b>	<b>1,750,000,000 cfu (1.75 billion cfu)</b>

Recommended Usage

3 capsules

1-2 capsules

1 capsule

1 capsule

## FAQ's

### What are probiotics?

The human body is host to many different bacteria that reside in the mouth, small intestine, large intestine, vagina, and skin. This “flora” that normally inhabit a bodily organ consists of beneficial, neutral, and potentially pathogenic microorganisms. In a healthy individual, the beneficial are dominant. The natural flora found in the human intestines is referred to as native microbionics and is unique to our individual diet, lifestyle, and environment.

### What's the difference between probiotics and enzymes?

Probiotics and enzymes are similar in that they both support healthy digestion. Digestive enzymes are proteins that catalyze the breakdown of food into nutrients for absorption into the blood stream. Probiotics are live supplemental microorganisms that support the native microbiota. Many probiotic strains are also known for their ability to secrete enzymes and/or metabolize food in the intestines, thereby assisting the digestive process.

### When is the best time to take a probiotic?

For general use or maintenance purposes we suggest taking probiotics at bedtime. The gut is most at rest throughout the night and should allow for unhindered transit to the large intestines. However, if the gut is severely imbalanced we may suggest they also be taken first thing in the morning and/or with meals.

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### **Why isn't eating yogurt enough for probiotic repopulation?**

Yogurt and fermented foods contain “live cultures” that can be beneficial, but they should not be compared to probiotics. Probiotics are specific genera, species, and strains of bacteria that have been isolated and identified with certain characteristics. The live cultures in fermented foods have not been isolated and are not the same as probiotics. Additionally, the colony forming units (cfu) in a supplement are often much more concentrated than in food.

### **Do I need to take a probiotic for life?**

Yes. Taking supplemental probiotics confers health benefits to the host by improving the environment and supporting the existing microbiota. The most current research is showing that the native microbiota is quite hardy and well established, however the microorganisms are mainly transient, giving rise to the need for continual supplementation.

### **If I am on an antibiotic, is it pointless to take a probiotic?**

No. In fact, it is very beneficial to take probiotics while on antibiotics. They support the growth and maintenance of the native microbiota, and many of the strains being studied are actually resistant to antibiotics. Several studies show the beneficial effects of probiotic supplementation, in particular its ability to reduce antibiotic diarrhea.

### **Can I take too many probiotics?**

The general answer is no, however the species, strains, and activity per dose should be suited to the individual's health needs.

### **Can probiotics be used topically?**

Yes. Native microbiota are also located on the skin of the host. For skin irritations that are fungal or bacterial in nature, probiotics may be applied to help balance the beneficial bacteria. Our clinical experience has shown good results in many cases. Open the capsule and moisten the powder making a paste and apply to the affected area on the skin. This can also be done in the mouth or as a rinse (gargle) for the throat.

### **What is the difference between a pre-biotic and a probiotic?**

Prebiotics support and stimulate growth of beneficial and advantageous bacteria. Carbohydrate, fiber, or starch based prebiotics serve as food for the microbiota and probiotics. These prebiotics supply fructo-oligosaccharides (FOS), often in the form of inulin, from foods such as Chicory Root and Jerusalem or Globe Artichoke (Probiotic, Probiotic 42.5). Bacteriophages are also classified as prebiotics since they enhance the growth of beneficial bacteria in the gastrointestinal tract by inhibiting the growth of neutral or potentially harmful bacteria (Transbiotic™). This process creates an availability of space and resources to allow the growth of beneficial organisms.

### **Should I rotate my probiotics?**

If users are taking the single-strain *Plantadophilus* formula for an extended time, we generally suggest they switch to the higher activity and mixed strains in Probiotic so they can have balance. For example, children who have begun eating like an adult from the table can benefit from the switch to Probiotic, and also if constipation is a problem. Similarly, users of Probiotic may want to rotate to maximum strength Probiotic 42.5 when additional support is desired. Transbiotic™ is designed for eliminating *E. coli* and other pathogen transmission from food and water, making it ideal for travelers and those immune to antibiotics, so it may be beneficial to rotate to this formula if using to treat specific infection from *E. coli* for example.

# PLANTADOPHILUS The "original" probiotic formula

This well tolerated, time-tested formula contains the single bacterium *Lactobacillus plantarum*, one of the most versatile probiotics considered a good "starter" as it promotes the growth of other beneficial bacteria.

## Product Highlights

- Provides 2 billion cfu of the plant-source probiotic *L. plantarum* per capsule

SUPPLEMENT FACTS	
Serving Size 3 Capsules	
Amount Per Serving	% Daily Value
<i>Lactobacillus plantarum</i> (6 billion cfu)	375 mg †
† Daily Value not established	

Other Ingredients: Vegetable Capsule (Hyppromellose, Water)

## For Your Information

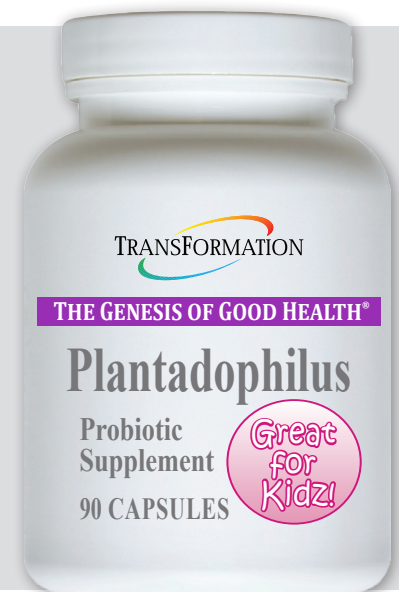
- Isolated from a plant source and naturally found in plant material and the GI tract, *L. plantarum* is GI stable, heat stable, and doubles its population in a short timeframe making it stronger and more stable than many acidophilus products on the market
- Along with promoting digestive health and serving as an effective treatment for IBS, Crohn's, and colitis, *L. plantarum* has shown the ability to destroy pathogens, preserve critical nutrients, vitamins, and antioxidants, produce the beneficial amino acid *L. lysine*, reduce risk of infections and inflammation, and is considered to be anti-pathogenic
- *L. plantarum* promotes production of B vitamins in the intestine and assists the production of enzymes for hydrolyzation of proteins, fat, and lactose
- Very well tolerated and is preferred by those with sensitive GI tracts or who may not tolerate FOS
- Keep refrigerated (when traveling take amount needed for the trip and store at room temp or lower)
- May be safely given to children, pets, and pregnant or lactating women (**for ages 4 and up**—consult your physician for use with younger children)
- As probiotics are meant to be released over an extended timeframe of 10-12 hours, effective dosing is typically once per day which ensures delivery throughout the entire intestinal tract

## Clinical Applications

- First choice for sensitive GI
- Prevention and wellness
- Soothes inflamed GI tract
- Excessive gas and bloating
- Chronic constipation
- Infants and children
- Yeast infections, candida
- Sore throat, mouth sores
- Histamine intolerance

## Dosage

- 3 capsules daily taken at bedtime (if preferred, take in the morning)
- For constipation, diarrhea, or excess gas: increase dose to 3 in the morning and 3 at bedtime
- May be taken with antibiotics to help maintain healthy balance (increase dosage as needed)
- May also be taken with meals for digestive discomfort associated with gas and bloating
- Topical dosage: open capsule, mix with small amount of water to make a paste, apply to fungal infection, fever blister, mouth sore, etc
- Capsule may be opened, mixed into 4 ounces of water, and gargled to relieve sore throat



# PROBIOTIC

Transformation's therapeutic and comprehensive probiotic formula

This is a blend of six bacteria common to the human GI tract. Formulated to mirror the proper ratios of these bacteria as found in the healthy GI tract and therefore maintain optimal flora to reduce gastrointestinal discomfort.

## Product Highlights

- A blend of six bacteria providing just over 5 billion cfu per capsule
- Jerusalem artichoke is a whole food form of inulin, an FOS (fructooligosaccharide) prebiotic that serves as food for the probiotics
- This effective antibacterial agent contains no lactose but is derived from milk so FDA requires allergen statement

SUPPLEMENT FACTS	
Serving Size 1 Capsule	
Amount Per Serving	% Daily Value
Tzyme™ Probiotic Blend (5.1 billion cfu)	84 mg †
<i>Lactobacillus acidophilus</i>	
<i>Lactobacillus plantarum</i>	
<i>Bacillus coagulans</i>	
<i>Bifidobacterium longum</i>	
<i>Lactobacillus salivarius</i>	
<i>Lactobacillus casei</i>	
Inulin (from Jerusalem artichoke root extract)	18 mg †
Lactoferrin (milk concentrate)	10 mg †
† Daily Value not established	

Other Ingredients: Vegetable Capsule (Hypromellose, Water, Gellan Gum), Microcrystalline Cellulose

Contains Milk.

## Clinical Applications

- Prevention and wellness
- Immune support
- Dysbiosis (absence or imbalance of good bacteria)
- Gas / intestinal bloating
- Inflammatory Bowel
- Constipation
- Frequent antibiotic use
- Weakened immunity
- Diarrhea
- Lactose intolerance
- Histamine intolerance
- Viral / bacterial infection

## For Your Information

- May safely be given to children and pregnant or lactating women
- Store in the refrigerator to maintain potency (when traveling, pack only the amount needed; non-refrigeration is acceptable for this short period of time)
- Un-refrigerated probiotics do not go "bad," but they may lose some of their potency over time
- Some forms of FOS may cause gas in some individuals, which is why we use only a small amount of Jerusalem artichoke, a natural whole food form
- Lactoferrin limits the ability of pathogens to thrive, allowing for more good bacteria to populate the microbiome while working synergistically with the probiotics to bolster the innate immune system
- *B. coagulans* (aka *L. sporogenes*) is a gram-positive, spore-forming, lactic acid-producing probiotic
- These six strains were selected based on their synergy, tolerance, and ability to work together to cover the beneficial functions of probiotics—for a maximum strength formula use Probiotic 42.5
- As probiotics are meant to be released over an extended timeframe of 10-12 hours, effective dosing is typically once per day which ensures delivery throughout the entire intestinal tract

## Dosage

- Maintenance: 1 capsule upon rising or at bedtime with at least 8 oz. of water (can be opened and mixed with liquid for those who are unable to swallow)
- Therapeutic: 1-2 capsules at bedtime or 1 in the morning and 1 at bedtime
- More may be taken to relieve constipation: 2 capsules 2 x day morning and bedtime
- May be taken with antibiotics to help maintain healthy balance (increase dosage as needed)
- May be taken with meals to relieve gas and bloating
- Topical application: open capsule and mix with small amount of water to make a paste, then apply to fungal infection, fever blister, mouth sore, etc
- 1 capsule may be mixed in 4 ounces of water and gargled to relieve sore throat

# PROBIOTIC 42.5

Transformation's maximum strength probiotic formula

The demand has never been greater for a maximum strength probiotic formula! These organisms enhance the balance of “friendly” bacteria to support intestinal health and encourage timely elimination thereby supporting overall health.

## Product Highlights

- A higher dose, dairy-free alternative to Probiotic
- Blend of 10 bacteria with 42,917,000,000 cfu/cap
- Jerusalem Artichoke is a whole food form of inulin, an FOS (fructooligosaccharide) pre-biotic that serves as food for the probiotics

SUPPLEMENT FACTS	
Serving Size 1 Capsule	
Amount Per Serving	% Daily Value
Tzyme™ Probiotic Blend (42.5 billion cfu)	280 mg †
<i>Bacillus coagulans, Bifidobacterium bifidum, Lactobacillus acidophilus, Lactobacillus plantarum, Bifidobacterium longum, Lactobacillus salivarius, Lactobacillus bulgaricus, Bifidobacterium infantis, Lactobacillus rhamnosus, Lactobacillus casei</i>	
Inulin (from Jerusalem Artichoke Root)	10 mg †
† Daily Value not established	

Other Ingredients: Vegetable Capsule (Hypromellose, Water), Microcrystalline Cellulose

## Clinical Applications

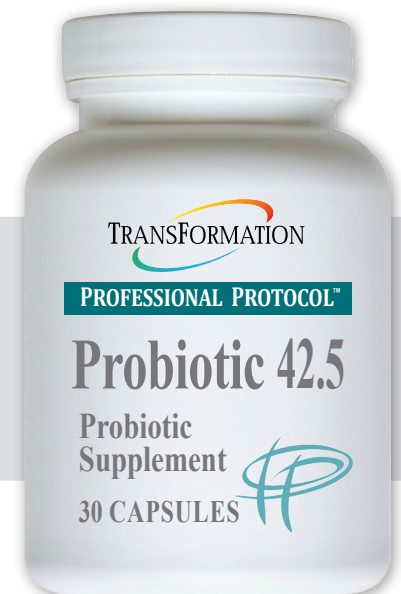
- Constipation
- Inflammatory Bowel
- Lactose intolerance
- Viral / bacterial infection
- Weakened immunity
- Dysbiosis (imbalance or absence of good bacteria)
- Frequent antibiotic use
- Gas / intestinal bloating
- Diarrhea due to antibiotics
- Chronic or long term illness
- Histamine intolerance

## For Your Information

- In addition to the six strains found in Probiotic, Probiotic 42.5 also includes *L. bulgaricus*, *B. bifidum*, *L. rhamnosus*, and *B. infantis* selected based on their synergy and ability to work together for maximum effectiveness with a total activity of over 42.5 billion cfu per capsule
- Although *B. bifidum* is grown on soy, this product contains NO known soy and is completely non-allergenic
- Store in the refrigerator to maintain potency (when traveling, pack only the amount needed—non-refrigeration is acceptable for this short period of time)
- Un-refrigerated probiotics do not go “bad,” but they may lose some of their potency over time
- Some forms of FOS may cause gas in some individuals, which is why we use only a small amount of Jerusalem artichoke, a natural whole food form
- Safe for pregnant and lactating women
- As probiotics are meant to be released over an extended timeframe of 10-12 hours, effective dosing is typically once per day which ensures delivery throughout the entire intestinal tract

## Dosage

- 1 capsule upon rising or at bedtime with at least 8 oz. of water
- More may be taken as needed for discomfort
- May be taken with antibiotics to help maintain healthy balance



# TRANSBIOTIC™

Transformation's spore-based  
probiotic formula with an  
innovative prebiotic

Includes the spore probiotic *Bacillus subtilis* and PreforPro® prebiotic to support the growth of healthy bacteria in the gut through a method that is neither fiber nor starch-based.

## Product Highlights

- Bacterium blend provides 1.75 billion cfu per capsule
- *Bacillus subtilis* is a natural spore probiotic found in our environment, and *Lactobacillus* is found both in nature and in the digestive system
- PreforPro® blend of highly specific bacteriophages which support growth of beneficial bacteria in the gut
- DR capsule increases intact delivery to the small intestine by protecting these organisms from stomach acid

SUPPLEMENT FACTS	
Serving Size 1 Capsule	
Amount Per Serving	% Daily Value
Probiotic Blend (1 billion cfu)	299 mg †
Lactobacillus acidophilus, Bacillus subtilis DE111®, Lactobacillus casei, Lactobacillus plantarum	
PreforPro®	15 mg †
LH01 - Myoviridae, LL5 - Siphoviridae, T4D - Myoviridae, LL12 - Myoviridae	
† Daily Value not established	

Other Ingredients: Delayed Release Capsule (Hypromellose, Pectin, Water)

## Clinical Applications

- Diarrhea
- Inflammatory bowel
- Viral/bacterial infection
- Weakened immunity
- Histamine intolerance
- Frequent antibiotic use
- Dysbiosis
- SIBO
- Food borne illness
- Candida
- UTIs
- Traveler's Diarrhea

## For Your Information

- Works with a broad spectrum of probiotic species, does not cause flatulence commonly seen with other prebiotics, works throughout the entire digestive process, and is stable in varying gut environments
- Convenient, uncomplicated, and practical probiotic can withstand extreme temperatures and environments for a longer shelf life
- Refrigeration not required but recommended for optimum activity—do not freeze
- Excellent alternative for antibiotic therapy without risk of resistance
- While Transbiotic™ has a lower cfu and strain count than Probiotic and Probiotic 42.5, it is just as powerful
- *Bacillus subtilis* is an endospore-forming bacteria that requires a lower cfu than non-spore probiotics due to its high durability and indefinite lifespan, which allows for equal productivity when compared with non-spore probiotics that have higher cfu count but may not contain strains with such durability
- Although *Bacillus subtilis* is of the spore genus, it meets GRAS standards and is easily distinguishable from disease-causing *Bacillus* species
- Non-digestible starch and fiber-based prebiotics can cause unwanted side effects such as gas and bloating, whereas the PreforPro® utilizes bacteriophages to inhibit the growth of potentially harmful bacteria, allowing the growth of beneficial bacteria without these negative side effects
- This formula is designed for eliminating *E. coli* and other pathogen transmission from food and water, making it ideal for travelers and those immune to antibiotics—may be beneficial to rotate with Probiotic or Probiotic 42.5 if using to treat specific infection from *E. coli*

## Dosage

- 1 capsule upon rising or at bedtime with at least 8 oz of water
- More may be taken as needed for discomfort
- May be taken with antibiotics to help maintain healthy balance
- As probiotics are meant to be released over an extended timeframe of 10-12 hours, effective dosing is typically once per day which ensures delivery throughout the entire intestinal tract