



## THE FRIENDLY TRIO + NAG

**Battle of the bugs?** To stay healthy, you need complete protection against infections, superbugs, and food-borne bacteria. Fight foes with friendly bacteria. **Enerex's The Friendly Trio® + NAG** contains 1 billion live cultures of bacteria probiotics of *Lactobacillus acidophilus* KS-13, *Bifidobacterium bifidum* G9-1 and *Bifidobacterium longum* MM-2. Research shows these bacteria are the optimum for a healthy intestinal environment. Its strains are used in over 30,000 hospitals and clinics worldwide. This potent Enerex formula is enhanced with a prebiotic, and N-acetylglucosamine (NAG) for extra digestive support and intestinal repair.

NPN: 80040293

- **Overview**
- **Features**
- **Ingredients**
- **Ailments**
- **Packaging**
- **Testimonials**



### OVERVIEW

#### Protect yourself from the outside world

Beneficial or good bacteria help to keep your entire body balanced and healthy. They create a protective shield from disease-causing microorganisms that are found in every type of public environment you encounter. Good bacteria help defend your body against pathogens including salmonella, yeast infections, mold, food poisoning and viruses.

Balance your digestive system's good bacteria to counteract the bad with specific strains of probiotics — your allies in the fight to stay in harmony.

This general information is provided for educational and interest purposes only and in no way should be interpreted to be diagnosing, advising, or recommending treatment for any illness or health condition nor should it be substituted for proper medical advice or care. The content is "as is" with no representations or warranties, expressed or implied. Always consult a qualified health care professional. Do not disregard, delay, or discontinue medical treatment based on information contained herein.



## The good, the bad, and the ugly...

You carry around about three pounds of bacteria in your intestines all of the time, and even bad bacteria like E. coli and salmonella live happily inside you all of the time without making you ill. In fact, these alien (non-human) life forms make up 90% of you; there are 10 times more bacterial cells in your body than human cells. These also include good bacteria, without which you wouldn't survive.

The problem is that the good and bad can get out of balance because the lurking undesirables increase in numbers. This happens due to:

- daily life situations
- eating too much sugar or processed food, which feed destructive microbes,
- not consuming enough probiotic containing foods like real yogurt, non-vinegar sauerkraut, kim chi, miso,
- or even touching a door knob infected with a virus,
- abuse of antibiotics,
- from pollution,
- and changes to our soil, which traditionally provided healthy bacteria.

Invasions from bad bacteria, also called pathogens, disrupt not only your digestive system, but your immune system, your weight, allergic reactions, skin problems, fatigue, and even autoimmune diseases.

**Enerex's The Friendly Trio® + NAG** probiotics supplement contains 1 billion live cultures of probiotic bacteria called *Lactobacillus acidophilus*, *Bifidobacterium bifidum* and *Bifidobacterium longum*. Enerex chose these three types of bacteria because they have been researched to be the optimum friendly bacteria for a balanced intestinal environment. These beneficial bacteria are of human origin and have been perfected through decades of laboratory culturing. These particular bacteria strains are used in over 30,000 hospitals and clinics worldwide. The Friendly Trio'® cultured human strains have been processed to retain viability at room temperature, meaning unlike many other probiotics supplements, they do not need to be refrigerated.

## But is that enough? What can you do to improve its benefits?

No matter which probiotics you take, in order to ensure consistent benefits they must be replenished daily.

Also, to help ensure that they proliferate, and get the greatest therapeutic benefits, you can take a more complete formula that blends probiotics with other natural ingredients. These include soluble fibre that acts as a "prebiotic." This fibre called FOS (fructo-oligosaccharides

This general information is provided for educational and interest purposes only and in no way should be interpreted to be diagnosing, advising, or recommending treatment for any illness or health condition nor should it be substituted for proper medical advice or care. The content is "as is" with no representations or warranties, expressed or implied. Always consult a qualified health care professional. Do not disregard, delay, or discontinue medical treatment based on information contained herein.



helps to feed the bacteria so that they flourish and “attach” in our GI tract helping to create a healthy home for the new probiotics. And once taken, the prebiotic is broken down as the primary food for your probiotics. **The Friendly Trio**<sup>®</sup> probiotic is also enhanced with N-acetylglucosamine (NAG) for digestive support and repair.

### **What is NAG?**

NAG (N-acetylglucosamine) is a part of the mucous membranes in your digestive, respiratory and urinary tracts.

NAG helps to protect and “rebuild” these and other areas (such as joint cartilage), that may be at risk of degeneration. NAG is an “amino sugar”, a combination of specific sugar compounds, and is a ready-made building material for tissue repair.

NAG is naturally present in our body and is important for our digestive system health. It has three specific functions to support our digestive system’s functions:

1. It is essential for making tissue – it is involved in the process of generating tissue especially for the mucous membranes of the digestive, respiratory, and urinary tracts;
2. Is an important component of the cell coating enhancing the recognition of antigens and receptor functions;
3. Is involved in maintaining the integrity of the cells and tissues of the mucous membranes, keeping them tight together to limit foreign invaders from breaking this tissue down and creating problems.

NAG also:

- Helps to heal areas that may be inflamed or vulnerable to future damage
- Encourages the growth of beneficial bacteria in the entire gastrointestinal tract
- Helps support the immune system and is a component of some enzymes

See more information and research on NAG under Features.

### **What is a prebiotic?**

A prebiotic provides the food that good bacteria require. Good bacteria are living organisms so they need nourishment so a prebiotic enables them to grow more rapidly.

FOS (fructo-oligosaccharides) is a prebiotic made from Inulin, which is a very healthy dietary fibre. Inulin, made from chicory root, helps to keep the stomach, intestines and

This general information is provided for educational and interest purposes only and in no way should be interpreted to be diagnosing, advising, or recommending treatment for any illness or health condition nor should it be substituted for proper medical advice or care. The content is “as is” with no representations or warranties, expressed or implied. Always consult a qualified health care professional. Do not disregard, delay, or discontinue medical treatment based on information contained herein.



bowels healthy by nurturing the growth of *Bifidobacterium* and *Lactobacillus acidophilus*. This fibre also aids in bowel regularity, which helps to prevent a build-up of unhealthy bacteria that thrive on the toxic by-products created from a sluggish elimination system.

FOS also:

- Increases calcium absorption
- Lowers blood lipid levels (removes fats from the bloodstream)
- May aid in cholesterol and triglycerides management
- Is found in over 35,000 plants, which means that humans are widely exposed to Inulin in vegetables so the risk of allergic reaction or intolerance is low
- It may help normalize blood sugar levels

### **Back to basics: What are probiotics?**

“Pro biotic” means “for life.” Probiotics are lactic-acid producing bacteria that live in your intestinal (GI) tract, on your skin, and on mucus membranes (meaning your mouth, nose, anus, vagina). The functions are so important that scientists designated these lactic bacteria as “probiotic,” or agents that protect life.

There are about 1000 different bacterial species that can be found in and on the human body, and types and combinations vary within each person depending on your body’s needs, your health, your lifestyle, and even your mother’s health when she gave birth to you.

These personalized bacteria work to:

- aid digestion breaking down the foods to be able to absorb the nutrients,
- make nutrients (some vitamins are made within the gut),
- reduce infection and diseases in the intestinal tract, and,
- support and work with your immune system to fight all diseases.

### **How do they work?**

Lactic acid bacteria are able to help protect their host (you) against bad bacteria.

When billions of live, active bacteria cells from a probiotic supplement enter your intestines, they reach “receptor sites.” After they stick to these receptor sites, they create a protective shield that stops harmful pathogens from attaching, and stops those already attached from growing in numbers. Also, since probiotics are living organisms,

This general information is provided for educational and interest purposes only and in no way should be interpreted to be diagnosing, advising, or recommending treatment for any illness or health condition nor should it be substituted for proper medical advice or care. The content is “as is” with no representations or warranties, expressed or implied. Always consult a qualified health care professional. Do not disregard, delay, or discontinue medical treatment based on information contained herein.



they consume nutrients, which reduce the amount of nutrients available for harmful bacteria to “eat.”

The cultured human strains of The Friendly Trio<sup>®</sup> have been carefully processed to retain viability at room temperature, meaning unlike many other probiotics supplements, they do not need to be refrigerated.

### **A gut reaction?**

Adding friendly bacteria to your diet has been most well researched for its effects in alleviating digestive issues

Studies have shown that probiotics can help to relieve inflammatory bowel disease (IBS), reduce inflammation in ulcerative colitis, prevent and lessen diarrhea, and decrease constipation in children, adults and the elderly.

In the intestine, there are two main groups of these bacteria: *Lactobacilli* and *Bifidobacteria*. Within these two groups there are various species and strains, each with their own unique properties and benefits. (See more information about these two strains under Features.)

### **Antibiotics are “anti life”**

Although antibiotics have greatly helped to eliminate diseases, and are one of the most important discoveries in medical science, the misuse and overuse of these drugs are also a detriment to health.

Taking antibiotics can create putrefactive (rotting of food) and the growth of infectious microorganisms in your gut that generate toxins. Prolonged use of antibiotics also destroys good, friendly lactic bacteria in the digestive system, leaving it defenseless.

### **When does diet come into play?**

You need a constant and reliable supply of lactic bacteria.

This is especially due to lifestyle habits – like eating junk food, not getting the right daily nutrients, smoking, and lack of sleep, and life situations – like illness, stress, and eating contaminated or under cooked foods that all change your bacterial environment. Certain foods can increase the numbers of good bacteria in your system: fermented

This general information is provided for educational and interest purposes only and in no way should be interpreted to be diagnosing, advising, or recommending treatment for any illness or health condition nor should it be substituted for proper medical advice or care. The content is “as is” with no representations or warranties, expressed or implied. Always consult a qualified health care professional. Do not disregard, delay, or discontinue medical treatment based on information contained herein.



foods such as sauerkraut, kim chi, and miso, fibre found in vegetables such as onions and leeks, and types of plain, lesser processed, unsweetened probiotic yogurt.

## INGREDIENTS

EACH VEGETARIAN CAPSULE CONTAINS:

### Medicinal Ingredients:

<i>Lactobacillus acidophilus</i> (KS-13)	0.8 billion cfu
<i>Bifidobacterium bifidum</i> (G9-1)	0.1 billion cfu
<i>Bifidobacterium longum</i> (MM-2)	0.1 billion cfu
N-acetylglucosamine (NAG)	300 mg

### Non-Medicinal Ingredients:

FOS\* (fructo-oligosaccharides), Chicory 50 mg Hypromellose (vegetarian cellulose-complex capsule)

There are no other ingredients added to this formula.

\*FOS (Prebiotic) increases the volume of The Friendly Trio® in the digestive tract by up to 10 times.

The Friendly Trio® is a registered trademark of Wakunaga of America Inc.

### Directions:

ADULTS: Take 1 capsule 3 times daily with meals or as directed by a health care practitioner.

## FEATURES

### Probiotic protection from the pros

If you need extra protection against chronic infections, superbugs, a compromised digestive system, Candida and food-borne bacteria, consider a more advanced probiotic that not offers friendly bacteria, but also provides a prebiotic and support for your intestines.

**Enerex's The Friendly Trio® + NAG** contains 1 billion live cultures of *bacteria* strains of *Lactobacillus acidophilus*, *Bifidobacterium bifidum* and *Bifidobacterium longum*. We chose these types because research shows these three bacteria are the optimum for a healthy, balanced intestinal environment. . These beneficial bacteria are of human origin and have been perfected

This general information is provided for educational and interest purposes only and in no way should be interpreted to be diagnosing, advising, or recommending treatment for any illness or health condition nor should it be substituted for proper medical advice or care. The content is "as is" with no representations or warranties, expressed or implied. Always consult a qualified health care professional. Do not disregard, delay, or discontinue medical treatment based on information contained herein.



through decades of laboratory culturing. These particular bacteria strains are used in over 30,000 hospitals and clinics worldwide. The Friendly Trio<sup>®</sup> cultured human strains have been carefully processed to retain viability at room temperature so they do not need to be refrigerated.

**Enerex's The Friendly Trio<sup>®</sup> + NAG** is enhanced with a prebiotic called FOS and N-acetylglucosamine (NAG) for extra digestive support and intestinal repair.

The formula is a daily maintenance probiotic and prebiotic that can be used by anyone that wants to improve their digestion, in addition to those that may be healing from illness, are required to take antibiotics, or that need extra help. It is enhanced with NAG (N-acetylglucosamine) to nourish and support a healthy intestinal lining, and with FOS (fructo-oligosaccharides), a prebiotic that promotes the growth of beneficial bacteria throughout the digestive tract. See studies on NAG under NAG Research.

### **The Friendly Trio<sup>®</sup>**

One capsule of **Enerex The Friendly Trio<sup>®</sup>** provides 1 billion live cells of *L. acidophilus*, *B. bifidum*, and *B. longum*. These unique human strains are selected specifically to function in the human intestinal tract, making this formula far more effective than dairy or soil-based probiotics because the good bacteria is able to remain longer and multiply.

Within this formula, *Lactobacillus acidophilus* bacteria predominantly colonize (make themselves at home in) the upper to lower part of the small intestines. And *Bifidobacterium bifidum* and *Bifidobacterium longum* colonize primarily the lower part of the small intestines and the large intestine (colon).

### **What else you should know:**

- Combining these strains may help suppress harmful bacteria and the substances they produce along the entire intestinal tract.
- This formula is ideal both for those who have been exposed to antibiotics and would like to restore their intestinal bacteria, and also for those who would simply like to assure a surplus of beneficial bacteria in their intestinal tract.
- Friendly bacteria may assist in the body's normal response to yeast infections from *Candida albicans*.
- This formula offers guaranteed stability at room temperature and does not require refrigeration.

This general information is provided for educational and interest purposes only and in no way should be interpreted to be diagnosing, advising, or recommending treatment for any illness or health condition nor should it be substituted for proper medical advice or care. The content is "as is" with no representations or warranties, expressed or implied. Always consult a qualified health care professional. Do not disregard, delay, or discontinue medical treatment based on information contained herein.



- It is suitable for all ages including children over two years of age and the elderly. (See a healthcare practitioner if unsure of your condition.)

### **Despite their microscopic size, the story behind probiotics is enormous.**

They may be small and simple-celled, but the health effects of probiotics reach almost every aspect of the body. Since the discovery of their potential health benefits in 1908 (which won the Nobel Prize), probiotics have been explored by scientists around the world.

### **Lactic bacteria are your body's companions**

Although scientists have not uncovered all there is to know about the various abilities of the bacteria in our body, they do understand certain aspects of the two common groups of lactic acid bacteria.

These microorganisms, which have the ability to transform sugars into lactic acid and acetic acid, decrease the pH level of (meaning they increase the acidity in) the intestines and produce substances that suppress harmful bacteria. This, of course, is good for us.

As mentioned in the Overview, these lactic bacteria are normally present in the digestive tract, on the skin, and in sensitive, tender, mucous membranes like the nose and vagina. There they fulfill numerous functions and protect against harmful microbes.

### **Why do supplements have to use bacteria derived from other humans to add to your army?**

Human strains of probiotic supplements are preferred over dairy or soil based sources.

Since each mammal, including humans, has a unique blend of intestinal bacteria that helps protect them from pathogenic bacteria, it is not always effective to introduce bacteria from one mammal into another. Benefits tend to be brief and unreliable. Human strains have been shown to resist stomach acid when taken with food, and are more adapted to the internal environment of the human digestive tract. They are the supplement of choice since they are more likely to survive and colonize the human digestive tract.

This general information is provided for educational and interest purposes only and in no way should be interpreted to be diagnosing, advising, or recommending treatment for any illness or health condition nor should it be substituted for proper medical advice or care. The content is "as is" with no representations or warranties, expressed or implied. Always consult a qualified health care professional. Do not disregard, delay, or discontinue medical treatment based on information contained herein.



## Probiotic Research

What does modern science say about good bacteria?

### 1. Infections and immune system

A) A 2004 review states that encouraging evidence is emerging which shows that probiotics may prevent and manage skin diseases, and prevent postoperative skin infections.

In relation to immunity, the review states, "There is also strong evidence that certain probiotic strains are able to enhance immune function, especially in people with less than adequate immune function such as the elderly." It also says there is unequivocal evidence that probiotics can be effective in treating acute infectious diarrhea in children, and preventing diarrhoea cause by antibiotics. However, major gaps exist in scientific knowledge regarding how they work, the optimum dose, and length of treatment for different probiotic strains.

(HS Gill, F Guraner, "Probiotics and human health: a clinical perspective," *Postgrad Med Journal*, 2004;80:516-526, Department of Primary Industries, Victoria, Australia, Massey University, Palmerston North, New Zealand, and University Hospital Vall d'Hebron, Barcelona, Spain)

B) As we age, there are gradual decreases in numbers of Bifidobacteria in the intestine, a factor that may reduce our resistance to infections

A 2001 study also wanted to find out whether supplementing with the known immune-stimulating probiotic *Bifidobacterium lactis* could increase the abilities of the immune system in elderly people. Thirty healthy volunteers 63 to 84 years participated in a trial lasting nine weeks, in which they drank milk twice daily, or consumed milk supplemented with B. lactis.

Results showed changes in their leukocytes, phagocytes, and tumor-cell-killing activity in blood samples. T-lymphocytes and the tumour-reducing activity of natural killer cells also increased after B. lactis was consumed. The greatest changes were found in people who had the poorest immune response before treatment. Therefore the researchers concluded that Bifidobacterium may be an effective dietary supplement for increasing some aspects of immunity in the elderly.

(Harsharnjit S Gill, Kay J Rutherford, Martin L Cross, Pramod K Gopal, "Enhancement of immunity in the elderly by dietary supplementation with the probiotic Bifidobacterium lactis HN019," *Am J Clin Nutr*, 2001,

This general information is provided for educational and interest purposes only and in no way should be interpreted to be diagnosing, advising, or recommending treatment for any illness or health condition nor should it be substituted for proper medical advice or care. The content is "as is" with no representations or warranties, expressed or implied. Always consult a qualified health care professional. Do not disregard, delay, or discontinue medical treatment based on information contained herein.



vol. 74 no. 6 833-839, Massey University, New Zealand, and New Zealand Dairy Research Institute, New Zealand)

## 2. Diarrhea

According to this 2010 US study, *Lactobacillus* and *Bifidobacterium* species work by lowering the pH of the intestines, decreasing colonization of invading pathogens, and changing the host's (the person's) immune system response to invaders

Probiotic benefits of one species or strain do not necessarily hold true for others. The study states that the strongest evidence for the effectiveness of probiotics has been to treat acute diarrhea, most commonly due to a virus.

It advises that a probiotic should contain several billion microorganisms (indicated on the label) to increase the chance that the good bacteria will take up residence in the gut, displacing the bad bacteria. The study concludes, "Probiotics have demonstrated efficacy in preventing and treating various medical conditions, particularly those involving the gastrointestinal tract, and are generally considered safe and well tolerated."

(Nancy Toedter Williams, Pharm.D., "Probiotics", *American Journal of Health-System Pharmacy*, March 15, 2010 vol. 67 no. 6 449-458, College of Pharmacy, Southwestern Oklahoma State University, OK. doi: 10.2146/ajhp090168 )

## 3. Dermatitis/eczema

To prove effectiveness of probiotics in treating or preventing atopic dermatitis (eczema) in children, 13 trials were reviewed in this 2008 study

Four trials showed a significant decrease in eczema after probiotics were given to infants and children for one or two months, while two other trials' results showed that eczema was significantly reduced after treatment with Lactobacilli only in children with a type called "IgE-associated eczema." In four of six trials, improvement was shown, with decreased inflammation.

Regarding prevention of rashes in babies, in two trials, infants at high risk for eczema who received probiotics developed it less frequently during the first 2 years of life than infants who didn't. In these trials, mothers were given Lactobacillus with or without other probiotics peri-natally, followed by treatment of the infants with probiotics for the first six months of life. "Probiotics seemed to be effective for the prevention of

This general information is provided for educational and interest purposes only and in no way should be interpreted to be diagnosing, advising, or recommending treatment for any illness or health condition nor should it be substituted for proper medical advice or care. The content is "as is" with no representations or warranties, expressed or implied. Always consult a qualified health care professional. Do not disregard, delay, or discontinue medical treatment based on information contained herein.



dermatitis, and were also found to reduce the severity of it in half of the children evaluated, but more studies need to be conducted.”

(Betsi Gregoria, Evangelia Papadavid, Matthew Falagas MD, “Probiotics for the Treatment or Prevention of Atopic Dermatitis”, *American Journal of Clinical Dermatology*, April 2008, Volume 9, Issue 2, pp 93-103)

#### 4. IBS symptoms

Recent studies have shown that there are differences in the type/makeup of the intestinal bacteria between people with IBS and healthy individuals.

This review states that manipulating the intestinal microbes with probiotics, prebiotics or antibiotics can affect intestinal functions that occur from IBS. The review studied several trials comparing the effects of probiotics in IBS, and despite differences in dosages and probiotic species used, they all showed improvement in IBS symptoms. Some studies that use probiotics in children with IBS also show there may be benefits.

(Ringel, Yehuda MD\*; Ringel-Kulka, Tamar MD, MPH, “The Rationale and Clinical Effectiveness of Probiotics in Irritable Bowel Syndrome”, *Journal of Clinical Gastroenterology*, December 2011, Volume 45, Issue – p, S145–S148, doi: 10.1097/MCG.0b013e31822d32d3)

#### 5. Ulcerative Colitis

The aim of a 2007 study was to evaluate how effective probiotics is for mild to moderate symptoms of colitis.

Twenty patients with colitis took probiotics for 4 weeks. Clinical symptoms and fecal samples were examined before and after probiotics were taken, and then results were analyzed. Results showed remission in 45% of patients; some positive effect was shown in 10%; no response was found in 40%, and 5% had worsening symptoms. The biggest difference was that their bacterial environment increased in Bifidobacteria, a primary good bacteria for a healthy gut.

(Yukiko Tsuda, Yasushi Yoshimatsu, Hiroshi Aoki et al., “Clinical effectiveness of probiotics therapy in patients with ulcerative colitis refractory to conventional therapy”, *Scandinavian Journal of Gastroenterology*, 2007, Vol. 42, No. 11, Pages 1306-1311, Sakura Medical Center, Toho University, Japan)

#### 6. Vaginal Yeast Infections

Probiotics have been researched as a possible preventative for those that have recurrent vaginal candidiasis (also called *Candida albicans* or yeast infections).

This general information is provided for educational and interest purposes only and in no way should be interpreted to be diagnosing, advising, or recommending treatment for any illness or health condition nor should it be substituted for proper medical advice or care. The content is “as is” with no representations or warranties, expressed or implied. Always consult a qualified health care professional. Do not disregard, delay, or discontinue medical treatment based on information contained herein.



A 2006 review of studies showed vaginal candidiasis was associated with low Lactobacilli in the vagina and that Lactobacilli can reduce the growth of *Candida albicans* and/or its adherence on the vaginal wall. The results of some clinical trials support the effectiveness of Lactobacilli, especially *Lactobacillus acidophilus*, *Lactobacillus rhamnosus*, and *Lactobacillus fermentum*, taken either orally or intra-vaginally.

This is done to colonize the vagina with good bacteria and/or prevent the infection of the vagina by *C. albicans*. This review states that the available evidence for the use of probiotics to prevent recurrent vaginal yeast infections is limited, however, probiotics may be considered in women with frequent recurrences (more than three times per year), especially for those who have adverse effects from using antifungal creams.

("Probiotics for prevention of recurrent vaginal candidiasis: a review"  
*Journal Antimicrob. Chemother*, 2006, 58 (2): 266-272. doi: 10.1093/jac/dkl246)

## NAG Research

N-acetylglucosamine (NAG) is a special form of glucosamine. It is used by the cells lining your digestive tract to produce a "slippery" barrier of mucous that helps protect your digestive lining. When NAG is lacking in the digestive tract then ingestion of various foods is much less likely.

Since your digestive tract has such a high demand for NAG, it will take NAG from other areas of the body when needed, which can cause dryness of the eyes, mouth or skin. NAG may also reduce inflammation and extend the life of skin cells. It helps to make hyaluronic acid, the vital component to youthful, healthy skin, lubrication of joints and eye health.

What does modern science say about N-Acetylglucosamine (NAG)?

### 1. Skin healing and anti-aging

A 2013 study tested cultured human skin to see how supplementing with NAG would change the properties of the skin layer of cells called the mesothelial layer. The tests showed that with NAG more collagen was produced, hyaluronic acid was increased. Fibroblasts cultured with NAG demonstrated improved healing on injured layers of cells (by 34%), and ageing of the skin in the presence of NAG was slightly less pronounced.

This general information is provided for educational and interest purposes only and in no way should be interpreted to be diagnosing, advising, or recommending treatment for any illness or health condition nor should it be substituted for proper medical advice or care. The content is "as is" with no representations or warranties, expressed or implied. Always consult a qualified health care professional. Do not disregard, delay, or discontinue medical treatment based on information contained herein.



(A. Połubinska, J. Cwalinski, E. Baum, "N-Acetylglucosamine modulates function of the skin fibroblasts," June 2013, Society of Cosmetic Scientists, DOI: 10.1111/ics.12067)

## 2. Kidney disease

A 2006 study tested the anti-inflammatory potential of N-acetylglucosamine on uremia, a serious complication of chronic kidney disease and renal failure that has increased urea (a large component of urine) in the blood. It showed that, in rats, NAG had an anti-inflammatory effect throughout the system for those animals that had uremia. It states, "This confirms the potential use of this compound (NAG) as a diuretic agent (reducing fluid) in peritoneal dialysis (a treatment commonly used for kidney disease) that also decreases inflammation."

(A. Breborowicz, A. Polubinska, G. Wu, et al. "N-acetylglucosamine reduces inflammatory response during acute peritonitis in rats." Poznan Medical School, Poznan, Poland. *Blood Purification* , 2006, 24(3):274-281, DOI: 10.1159/000091303)

## 3. Ulcerative Colitis

A study in 2000 investigated the effectiveness of NAG supplements in children with severe ulcerative colitis and Crohn's disease who were unresponsive to conventional treatment. Patients were given NAG orally or rectally, 3–6 g daily. Eight of 12 children who received oral NAG showed clear improvement. Of the children with Crohn's, 4 out of 7 showed improvement and were able to avoid surgery (followed up to 2.5 years later). Researchers concluded that NAG supplements may be useful in IBD, and can be absorbed from the gut and directly incorporated into the natural glycosaminoglycans within the intestine's mucous.

(Salvatore S, Heuschkel R, Tomlin S, et al. "A pilot study of N-acetyl glucosamine, a nutritional substrate for glycosaminoglycan synthesis, in paediatric chronic inflammatory bowel disease." *Aliment Pharmacol Ther.* 2000;14(12):1567-1579)

## 4. Candida albicans Yeast Infection

Here are two studies that showed NAG blocks *Candida albicans* from attaching to the gastrointestinal mucosa layer and stimulates the growth of beneficial *Bifidobacteria*:

(Petschow BW, Talbott RD. "Response of Bifidobacterium species to growth promoters in human and cow milk." *Pediatr Res.* 1991;29(2):208-213) and (Ghannoum MA, Abu-Elteen K, Ibrahim A, Stretton R. "Protection against *Candida albicans* gastrointestinal colonization and dissemination by saccharides in experimental animals." *Microbios.* 1991;67(271):95-105.)

This general information is provided for educational and interest purposes only and in no way should be interpreted to be diagnosing, advising, or recommending treatment for any illness or health condition nor should it be substituted for proper medical advice or care. The content is "as is" with no representations or warranties, expressed or implied. Always consult a qualified health care professional. Do not disregard, delay, or discontinue medical treatment based on information contained herein.



## 5. IBS/bowel disease

One clinical study found that NAG is deficient in patients with inflammatory bowel disease compared to non-IBD patients. This appears to be due to a defect in making NAG within the body.

(Burton AF, Anderson FH. "Decreased incorporation of 14C-glucosamine relative to 3H-N-acetyl glucosamine in the intestinal mucosa of patients with inflammatory bowel disease." *Am J Gastroenterol.* 1983;78(1):19-22)

## AILMENTS

### Digestive & Gastro-Intestinal (G.I. Tract)

**The many pros of probiotics! Enerex's The Friendly Trio® + NAG** contains 1 billion live bacteria of *Lactobacillus acidophilus*, *Bifidobacterium bifidum* and *Bifidobacterium longum*. This Enerex formula is enhanced with a prebiotic, and N-Acetylglucosamine (NAG) for extra digestive support, intestinal lining repair, and integrity of the whole gastrointestinal tract. Enerex chose *L.acidophilus*, *B. bifidum* and *B. longum* because they have been researched to be the optimum friendly bacteria for healthy intestines, and, along with NAG, they help relieve IBS and colitis symptoms, diarrhea and constipation. These beneficial bacteria are of human origin and have been perfected through decades of laboratory culturing. These particular bacteria strains are used in over 30,000 hospitals and clinics worldwide.

### Probiotics & Bowel Health

**Battle of the bugs?** To stay healthy, you need complete protection against infections, superbugs, and food-borne bacteria. Fight foes with friendly bacteria. **Enerex's The Friendly Trio® + NAG** contains 1 billion live cultures of *bacteria* strains called *Lactobacillus acidophilus*, *Bifidobacterium bifidum* and *Bifidobacterium longum*. Research shows these bacteria are the optimum for a healthy, balanced intestinal environment. These beneficial bacteria are of human origin and have been perfected through decades of laboratory culturing. These particular bacteria strains are used in over 30,000 hospitals and clinics worldwide. This Enerex formula is enhanced with a prebiotic, and N-acetylglucosamine (NAG) for extra digestive support and intestinal repair.

This general information is provided for educational and interest purposes only and in no way should be interpreted to be diagnosing, advising, or recommending treatment for any illness or health condition nor should it be substituted for proper medical advice or care. The content is "as is" with no representations or warranties, expressed or implied. Always consult a qualified health care professional. Do not disregard, delay, or discontinue medical treatment based on information contained herein.



## PACKAGING

**Why should you care about Enerex The Friendly Trio + NAG's bottle? We chose this packaging because it protects the product and the planet.**

Enerex products are housed in recyclable BPA-free PETE plastic containers to provide the best protection against oxidation, moisture, sunlight, and “chemical migration” from container to product (so the supplements don't acquire toxins from the plastic). In all of these areas, PETE is virtually equal to that of glass but without the larger environmental footprint left by glass packaging (it's very heavy to transport, using more fossil fuel).

PETE plastic is far superior to that of HDPE plastic: HDPE plastic is used for the majority of products on the market, but unlike more costly PETE bottles, HDPE plastic starts to immediately degrade the product inside because it doesn't provide a protective barrier to oxygen or moisture. Studies show high concentrations of chemicals that have migrated from HDPE bottles to the product inside compared to PETE and glass bottles.

## TESTIMONIALS

*Please leave a testimonial if you really like this product.*

This general information is provided for educational and interest purposes only and in no way should be interpreted to be diagnosing, advising, or recommending treatment for any illness or health condition nor should it be substituted for proper medical advice or care. The content is “as is” with no representations or warranties, expressed or implied. Always consult a qualified health care professional. Do not disregard, delay, or discontinue medical treatment based on information contained herein.