The Way to A Patient’s Heart is through their stomach

Maintaining Gastrointestinal Health: Patients and Natural solutions
Dear Practitioner,

46% is too much.

Gastrointestinal problems come in all shapes and sizes, affecting young and old alike. While 46% of the population suffers from some sort of G.I. issue, it may also be one of the most under treated categories of ailments.

Whether out of embarrassment by patients to mention G.I. problems or a pervasive attitude that these problems are just a fact of life, it behooves all practitioners to uncover and help treat this endemic set of problems that causes a variety of pain and discomforts that can significantly reduce their quality of life.

Natural solutions.

Increasingly, millions of Americans are turning to natural solutions for all sorts of ailments. That’s why our world class team of scientists and doctors have now come together to create GI Benefits…because 46% is too much.

To your patients’ and your practices’ good health,

Dom Orlandi
President
DaVinci Laboratories of Vermont

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.
**G.I. Problems are Big Problems**

**Introduction**
If the way to one’s heart is through their stomach, then the opposite is equally true. Gastrointestinal problems of all sorts weigh on the hearts, minds…and stomachs of millions daily. Some problems are temporary and minor irritations while others are ongoing and life-altering.

While many people may not want to discuss gastrointestinal problems, they are as pervasive as they are irritating.

- An estimated 1.4 million Americans have Inflammatory Bowel Disease, and about 30,000 new cases are diagnosed each year.
- More than one half million people in the United States suffer from Crohn’s Disease.
- Each year 130,000 Americans are diagnosed with colorectal cancer, the second most common form of cancer in the United States.
- Diverticular disease occurs in 10 percent of people over age 40 and in 50 percent of people over age 60 in Western cultures.
- About half of all people over age 60 have diverticulosis.
- The US Department of Health and Human Services estimates that about 7 million people in the US alone suffer from GERD.
- H. pylori bacteria are responsible for seventy five percent of stomach ulcers worldwide.

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**Enter Natural Solutions**

**Prescription for a Problem**
There is a reason why, per capita, the U.S. spends more on pharmaceuticals than any other country in the world. And it’s not because our health is worse than any other country.

As we know, many doctors still take a completely pharmaceutical approach to dealing with their patients’ issues. This is fueled by the massive profits—and even bigger marketing budgets—of the pharmaceutical industry.

According to the Department of Health and Human Services, at least half of all Americans take at least one prescription drug, with one in six taking three or more medications. A recent National Health and Nutrition Examination Survey revealed that prescription drugs compose the fastest growing element of our total health care expenditures. Drug expenditures have risen at least 15 percent every year since 1998.

This has far-reaching consequences, even beyond the exorbitant burden of the cost of health care in the United States. What are we getting for all this expense? A remedy that may be of bigger concern than the ailment.

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The Natural Solution Your Patients Are Seeking
There’s no wonder that patients are increasingly seeking natural, preventative and non-prescription remedies for all sorts of ailments. And gastrointestinal issues appear to be at the forefront of this movement.

Harvard Medical School has estimated that one out of every two persons in the United States, between the ages of 35 and 49 years, has used at least one alternative therapy. Between 1991 and 1997 the use of herbal medicines in the United States grew by 380% while the use of vitamin therapy increased by 130%.

The findings from the National Health Interview Survey (NHIS), suggests that in 1990 Americans made an estimated 425 million visits to providers of complementary care. This number exceeded the number of visits to U.S. primary care physicians (388 million) and was associated with an annual expenditure of approximately $13.7 billion, three-quarters of which were paid out of pocket. And that was a decade ago!

“These new findings confirm the extent to which Americans have turned to CAM approaches with the hope that they would help treat and prevent disease and enhance quality of life,” said Stephen E. Straus, M.D., Director, National Center for Complementary and Alternative Medicine.

Increasingly, clinicians are using prebiotics for patients with a variety of intestinal conditions.

We know that a variety of lifestyle changes may be helpful. At DaVinci® Laboratories, we recommend creating a total wellness package to support your patients’ gastrointestinal health. The best hope for compliance is actually achieving relief.

Indeed, increased clinical research is showing that there are a variety of natural solutions that support gut health. G.I. Benefits by DaVinci® Laboratories is at the leading edge of this movement.

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Common Natural Solutions for Gastrointestinal Benefits

**Zinc Carnosine** helps stabilize small bowel integrity by strengthening the stomach’s mucosal defenses and acts as an antioxidant, minimizing free radical damage to gastric mucosal cells. We use PepZin GI®, a unique, patented form of elemental Zinc bound to L-Carnosine which studies have shown is more effective than Zinc and L-Carnosine alone.

It supports gut repair processes by sticking to the stomach wall and acting as a buffer to gastric acid, serving as an antioxidant. Zinc Carnosine helps support a healthy microbial balance in the stomach, and may help support the body’s ability to manage undesirable bacteria.

**L-Glutamine**, a free-form amino acid, serves to fuel intestinal cells and maintain villi. It plays a principal role in protein metabolism, cell volumizing, and anti-catabolism.

**Arabinogalactans** is a well known source of dietary fiber that offers powerful benefits as a prebiotic. It is a phytochemical that supports the immune system, aids regularity and supports the production of beneficial bacteria.

The non-absorbed fiber is eagerly fermented by the distal gut microflora, resulting in an elevated production of short-chain fatty acids (SCFA) — primarily butyrate, but also propionate. SCFAs are critically important to the health of the colon and are the principal energy source for the colonic epithelial cells.

Larch arabinogalactans acts as a food supply to friendly intestinal bacteria. Like the well-known fructooligosaccharides, AG is considered a “prebiotic.”

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**Zinc Carnosine**
(a patented chelated molecule)

**Q.** What is Zinc Carnosine?

**A.** Zinc Carnosine is a dietary supplement ingredient to support optimum gastrointestinal health. Elemental Zinc bound to L-Carnosine helps stabilize small bowel integrity by strengthening the stomach’s mucosal defenses. It also acts as an antioxidant, minimizing free radical damage to gastric mucosal cells. It supports gut repair processes by sticking to the stomach wall and acting as a buffer to gastric acid, serving as an antioxidant. Zinc Carnosine helps support a healthy microbial balance in the stomach, and may help support the body’s ability to manage undesirable bacteria.

**Q.** Why PepZin GI®?

**A.** A unique ingredient combining elemental zinc and the dipeptide L-carnosine, both known for their anti-oxidant and membrane stabilizing effects. Research suggests it helps the body balance the microbial levels in the stomach.

**Q.** What is the mode of action?

**A.** Zinc-carnosine dissolves in the stomach to support absorption. This allows it to come in contact with the stomach lining and exert localized tissue-supportive effects, such as:

- Supporting tissue repair and helping protect the stomach lining
- Protecting the integrity of stomach mucosa cells through antioxidant properties
- Supporting proper inflammatory response

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PepZin GI® is a registered trademark of Hamari Chemicals, LTD. Osaka, Japan
**N-acetyl-glucosamine**, a form of glucosamine, is a building block of connective tissues to hold cells together. It forms an important substrate in the connective tissue lining of the intestinal tract and musculoskeletal system.

**Slippery Elm Bark**, a demulcent substance, reduces bowel transit time, absorbs toxins from the bowel, increases fecal bulk and dilutes stool materials (thereby reducing stool contact with the intestinal mucosa). It supports beneficial bacteria in the gut and provides an excellent substrate for bacterial fermentation.

The anthroquinones and anthrones in the aloe latex support the increase of colonic peristalsis and intestinal water content by opening chloride channels of the colonic membrane to cause a net reduction of liquid absorption by the colon.

The anthroquinone glycosides reach the colon mostly undigested, although some are metabolized by enzymes produced by intestinal bacteria.

**N-Acetyl Glucosamine** is included at advanced levels to support the integrity of the mucosal lining. N-acetyl glucosamine plays a crucial role in building the molecules that form the foundation of the mucosal barrier.

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Marshmallow Root has been used since Egyptian antiquity to soothe the gut. This sweet, mucilaginous herb has expectorant properties and also soothes tissue, while supporting the body’s ability to control bacteria.

Marshmallow contains polysaccharides that form a protective layer on the stomach lining and help stabilize stomach acid levels.

Stevia Leaf Extract may be relatively new to the United States market, but has been used by herbalists in Paraguay and Brazil for hundreds of years. It also has a negligible effect on blood glucose, and may even support glucose tolerance. Therefore, it is also attractive as a natural sweetener to those on carbohydrate-controlled diets.

G.I. Benefits: An Uncommon Solution to a Common Problem

DaVinci’s G.I. Benefits is the most advanced formula on the market today for optimal gastrointestinal health.

This comprehensive formula has been designed for gut health to soothe the digestive tract lining, promote regularity, microbial balance and support proper immune function.

Life’s Not Easy With G.I. Problems

That’s why sufferers line up for the right solution. But if they won’t swallow it, it can’t help. That’s why G.I. Benefits is offered in a convenient powder that mixes easily into any non-carbonated beverage or other functional food powder.

**Supplement Facts**

<table>
<thead>
<tr>
<th>Each Scoop (13.06 g) Contains</th>
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<tbody>
<tr>
<td>Calories</td>
<td>50</td>
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<tr>
<td>Total Carbohydrates</td>
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<tr>
<td>Sugars</td>
<td>2 g</td>
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<tr>
<td>Fiber</td>
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<td>Protein</td>
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<tr>
<td>Vitamin C</td>
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<tr>
<td>Calcium</td>
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<td>Iron</td>
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<tr>
<td>Sodium</td>
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<tr>
<td>Zinc Carnosine</td>
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<tr>
<td>L-Glutamine</td>
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<tr>
<td>Arabinogalactans</td>
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<tr>
<td>Deglycyrrhizinated Licorice</td>
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<tr>
<td>(Glycyrrhiza glabra) Root Powder</td>
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<tr>
<td>Aloe Vera Leaf Extract (200:1)</td>
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<tr>
<td>N-Acetyl Glucosamine</td>
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<tr>
<td>(from shrimp and crab)</td>
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<tr>
<td>Slippery Elm (Ulmus rubra) Bark</td>
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<tr>
<td>Marshmallow (Althaea officinalis) Root</td>
<td>100 mg</td>
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<tr>
<td>Stevia Leaf Extract</td>
<td>60 mg</td>
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</tbody>
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**Suggested Use**

G.I. Benefits is available in a convenient, crystalline powder which mixes easily into any beverage or other functional food powder and is free of any ingredient that causes gas and or bloating.

As a dietary supplement, mix one scoop (13.06 g) with cold water or juice once daily.

**Warning:** Persons with liver or kidney disorders or Reye’s syndrome should not take this product. Those who are pregnant or nursing should consult a healthcare practitioner before taking this or any nutritional product.

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About DaVinci Laboratories

About DaVinci® Laboratories
For 40 years, DaVinci® Laboratories has led the industry with the formulation of innovative, nutritional supplements exclusively for health care professionals. DaVinci® Laboratories, a division of FoodScience® Corporation (FSC), has been known as a company that sets new standards of quality and safety in products for humans and companion animals.

FoodScience® Corporation employs more than 200 dedicated individuals who share a mission to provide veterinarians and physicians with powerful products backed by science to complement traditional therapies. We are committed to using pure and highly researched ingredients in products that are safe, effective, and developed to meet the diverse needs of our unique customer base.

Safety and Quality
DaVinci® Laboratories holds a current Good Manufacturing Practices (cGMP) certification from the Natural Products Association. They review all elements of the manufacturing process to ensure that our products meet their established specifications for quality. These include identity, purity, potency, composition, and contaminants. In addition, our flexible facilities allow for custom formulations and private labeling for customers who are interested in marketing their own brand of nutritional products.

DaVinci® Research
DaVinci® and FSC offer the largest number of original formulations ever developed by a single company, including five U.S. patents for N, N-Dimethylglycine (DMG) in the areas of immune response and joint support, as well as our patented Glucosamine, MSM, and Perna formula using GlycOmega™ brand Perna canaliculus for joint and connective tissue support.

DaVinci® Specialty Formulations
Ongoing research and development at DaVinci® Laboratories has resulted in the most exclusive line of specialty products, some of which include: pure N,N-Dimethylglycine (Gluconic® DMG); the most complete and powerful multiple vitamin/mineral formulas available (Daily Best™, Kid’s Mighty Vites™, Omni™, Omni™ Jr, Spectra™, Spectra™ Man, Spectra™ Senior, Spectra™ Woman, Spectra™ Multi Age, Ultimate Prenatal™); and unique glycosaminoglycan products (Cartilage+™, Disc-Discovery®, Perna® and Perna® Plus). DaVinci® was also the first nutritional supplement company in the United States to introduce Evening Primrose Oil (Gamma-Lin™) to health practitioners in 1980 as well as the first company to offer doctors an efficient and accurate protocol for evaluating the quality of Oil of Evening Primrose.

DaVinci® supports research at the following institutions: University of Southern California Medical School, Los Angeles; Medical University of South Carolina, Charleston; Institute For Child Behavior Research, San Diego; San Diego State University; Northern Kentucky University, Highland Heights; Florida Medical School, Tampa; University of Bridgeport, Bridgeport, Connecticut; Clemson University College of Sciences, Clemson, South Carolina.

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