



## Medical Journalist Report of Innovative Biologics

by Morton Walker, DPM

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Freelance Communications

484 High Ridge Road • Stamford, Connecticut 06905 USA

Phone 203-322-1551 • Fax 203-322-4656

Email: mortwalk@compuserve.com • Website: www.Drmortonwalker.com

### Homeostatic Soil Organisms for One's Primal Defense

During 1996, at the age of nineteen, Jordan Rubin of Palm Beach Gardens, Florida had arrived at death's door, suffering from the most severe symptoms of Crohn's disease. This condition is a chronic, inflammatory, abnormality of the bowel showing overlapping clinical, epidemiologic, and pathologic findings. But medical science has determined no definite cause for the condition. It produces numerous, serious discomforts by exhibiting four common and characteristic disease patterns: (a) inflammation with pain and tenderness in the right lower part of the abdomen; (b) recurring acute intestinal obstructions that bring on deeply painful spasms of the intestinal wall, swelling of the abdomen, persistent diarrhea, and vomiting; (c) inflammation and chronic partial intestinal obstruction causing subtle but serious malnutrition and chronic debility; (d) abnormal channels (fistulas) with many pus-filled pockets of infection (abscesses) that produce fever, painful masses in the abdomen, and severe weight loss. Jordan Rubin showed all four of these disease patterns.<sup>1</sup>

For more than two years the young man experienced between twelve and 30 usually bloody bowel movements per day. They came on all night too, allowing him to sleep no more than one hour at any given time.

Laboratory tests showed that Jordan had no iron in his blood, and his serum measurement for albumin indicated muscle wasting (cachexia). By laboratory standards, this patient's blood was like that of a dead man. His body was affected by candidiasis, amoebiasis, cryptosporidiosis, extreme intestinal dysbiosis, acute electrolyte imbalance, elevated C-reactive protein, anemia, chronic fatigue, arthritis, diabetes, hair loss, and leukocytosis. The chance for recovery by conventional treatment methods remained discouraging, because Jordan also exhibited malabsorption syndrome for food nutrients. He could not assimilate the nutrients in food even if he had any appetite, which had been lacking for him for over a year. Jordan had dropped so much weight, from 180 to 104 pounds, he looked like a survivor of a Nazi death camp (see Photograph 1).

Jordan Rubin's quality of life was nonexistent. To find some viable therapy, he consulted over 70 health practitioners worldwide and tried more than 200 different nutritional products, including several probiotic preparations. As he explained to me, "During the two years of my illness, despite

my ongoing search for treatment, I was never granted even one day of reprieve from the symptoms of Crohn's disease. The excessive amounts of emotional, physical, and mental distress caused me to want to die. All I could do was pray to a compassionate God that the cure for Crohn's disease would someday be found.

"And then," he added with a smile, "it happened!"

#### The Cure for Crohn's Disease Comes to Jordan Rubin

Most people are unaware of the groundbreaking findings of Nobel laureate Elie Metchnikoff, PhD, the Russian bacteriologist who more than 91 years ago documented a direct link between human longevity and the necessity of maintaining a healthy balance between those beneficial and pathological microorganisms residing within the human gut. Dr. Metchnikoff's 1908 Nobel prize in physiology had been awarded for his discovery of phagocytes and other immune system components, but his accurate description of vital elements in the body's intestinal flora is equally important.<sup>2</sup>

Dr. Metchnikoff came to believe that human beings could live to the age of 150 years if they kept the organisms within their intestines in a state of homeostatic balance. This, he said, could be accomplished by consuming live, fermented foods. Such a concept expressed way back in 1909 by this great scientist forms the foundation for the cure of Crohn's disease that came to Jordan Rubin.

Jordan was able to regain his health by supplementing the small amount that he could eat with homeostatic soil organisms (HSOs™) which reversed the degenerative process of his Crohn's disease. The HSOs™ detoxified Jordan's intestinal tract, increased his ability to absorb nutrients from food, and boosted his immune system, especially in its ability to phagocytize viruses and bacteria. Moreover, the HSOs™ turned really aggressive against pathological molds, yeasts, fungi, and parasites of all types which permeated his gut. They stimulate the formation of lactoferrin (the iron-binding protein found in neutrophils which exerts antimicrobial activity by withholding iron from any harmful microorganisms that the patient ingests).

Homeostatic soil organisms are super probiotics (the opposite of antibiotics). They restore balance to an autointoxicated gastrointestinal tract in a specific manner.

Upon being swallowed, the HSOs™ activate and bring about gut restoration by attaching themselves to the intestinal mucosa. On the gut wall they reproduce to form colonies along the course of "receptor sites" which had previously been established by harmful bacteria and other pathological microorganisms. These pathogens are crowded out or eaten up by the probiotics so that symptoms of illness they had been producing tend to terminate eventually. The time factor for symptomatic healing is dependent upon the volume of pathogens lodged at the gut's receptor sites. No matter what the number of bad bacteria or other pathogens, HSOs™ implant themselves and bring about gut restoration.

Medical Journalist Ann Louise Gittleman, MS, like myself a proponent of supplementing with HSOs™, affirms that once colonized in the GI tract, these super probiotics eventually balance the colonic pH to set the stage for restoring all body systems. She assures us that the survival of some of the gut's most important resident microorganisms such as *Lactobacillus acidophilus* depends on the visiting HSO™ byproduct and the HSO-produced acidic colonic pH.<sup>3</sup>

Ingesting HSOs™ allows people to achieve optimum health by supplying them with the nutrients they would ordinarily be receiving had they eaten food derived from nutrient-dense soil. HSOs™ are beneficial bacteria which live in pure, nutrient-rich soil and are responsible for providing plants (vegetables and fruits) with those nutrients they require. The HSOs™ are absorbed by plants and become their protectors against harmful invaders. In that way the HSOs™ keep plants healthy and loaded with nutritional components as a source of food for humans. The same thing occurs for humans when we ingest the friendly organisms as nutritional supplements. These friendly organisms keep the human GI tract in a state of homeostasis by increasing intestinal absorption and keeping it free of parasites, yeasts, molds, other fungi, harmful bacteria, viruses, and additional pathogens such as spirochetes, rickettsiae, chlamydiae, protozoa, and helminths.

In large measure, the probiotic content of each person's gastrointestinal tract is an integral part of his or her immune system. While not generally known by the average individual, probiotics are absolutely essential for effective functioning of the gastrointestinal system. They synthesize the B-complex vitamins, crowd out yeast and parasites, help regulate blood cholesterol levels, and produce antibiotic compounds.

### The Original Reason for Jordan's Two Years of Misery

How Jordan Rubin's gastrointestinal tract came to be so out of balance to bring on his affliction is no puzzle. As occurs with so many young people who leave home and head out on their own, Jordan's two years of misery were probably brought on inadvertently by a bad diet and stress.

"Crohn's disease began for me during my first year away at college. I did not take care of myself. While I had grown up under the supervision of my dad, Herb Rubin, DC, an advocate of holistic health who never allowed processed food or refined sugar in our home, on my own his food rules were forgotten. I stayed up late to pursue my studies or to carouse with the guys. Sleeping was a waste of time. But then I came under much scholastic stress — constantly on the run — and for the first time ate lots of junk food," Jordan admits. "My body wasn't able to cope, and it broke down."

During that first college year, this student followed the lifestyle patterns of most people in the United States which cause them to develop a disproportionately high ratio of bad to good bacteria in the gut. While the normal ratio of friendly microorganisms to harmful ones usually runs at 85 to 15%. Jordan's wrong proportions probably ran in the opposite direction. In fact, stool analysis does show that the average resident of North America possesses a pathogenic gut content of about 55%, so that he or she remains in a subclinical state of disease. Symptoms may not show up, but illness lies waiting to manifest itself just under the surface. Eventually, abdominal dysfunction flares up in response to any stress that tips the balance further into the pathologic realm. Check your local pharmacy and count the vast number of commercial products used for digestive problems.

The good and bad microorganisms fighting it out in a person's gut get out of balance because of a series of unhealthy lifestyle practices. To name just a few: (a) too much alcohol; (b) eating foods impregnated with pesticides, herbicides, antibiotic residues, and hormonal pollutants; (c) the overconsumption of sugars and other refined carbohydrates; (d) the distress of too much stress; and (e) the lack of nutrition from living fresh foods grown in nutrient-rich soil. Such conditions are the precursors for assorted GI tract dysfunctions such as malabsorption syndrome, celiac disease, lactose intolerance, polyps, intestinal obstruction, colon cancer, diarrhea, constipation, inflammatory bowel diseases, diverticular diseases, irritable bowel syndrome, appendicitis, ischemic bowel disease, fistulas, fissures, hemorrhoids, peritonitis, hernia, small intestine dysbiosis, leaky gut syndrome, and more.<sup>4</sup>

### Development of a New and Potent Probiotic Product

When I first interviewed Jordan Rubin over the telephone during the spring of 1997, he had gone through two full years of misery attempting to control Crohn's disease. He succeeded! The young man had cured himself by supplementing daily with HSOs™. From ages nineteen to 21, his appearance changed in a highly remarkable manner (see Photograph 2). My medical journalist article resulting from our interviews was published in the August/September 1997 issue of the *Townsend Letter for Doctors & Patients*. It was illustrated with Jordan's before-and-after photographs which became an inspiration for readers from all over the world.<sup>5</sup> People suffering with bowel disease contacted him by the thousands. The readers communicated by sending over two thousand requests to buy HSOs™. All of them wanted to know where and how to acquire this truly effective probiotic food supplement.

One such inquiry came from a chiropractor who had been stricken with intestinal polyps, renal carcinoma and degenerative arthritis affecting his back, left shoulder, and neck. He was additionally burdened by avascular necrosis of the left jaw and left shoulder. Moreover, the unfortunate man also had three damaged vertebrae which had been injured from violent spasms arising out his abdominal cramping from

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end-stage Crohn's disease. The patient's Crohn's disease left him with nerve damage in the left leg and right hand plus a crushed lumbar spine. He lost 51 pounds and was written off by numerous attending physicians who agreed that he could not possibly live past another year. The former chiropractor (who no longer practices as a DC) is Scott G. Robinson, PhD, LRC, DC, of Vista, California (a suburb of San Diego). Currently Dr. Robinson's occupation is as a home-care trainer for the chronic and terminally ill under the auspices of the Eastern Orthodox Church in Duluth, Minnesota.

Dr. Robinson had refused chemotherapy for kidney cancer at the University of Southern California Medical Center and used natural and nontoxic therapies instead. He went through the two Gerson Institute clinics in Tijuana, Mexico and Sedona, Arizona and became not only a patient at the Tijuana Gerson hospital but also accepted a position as a therapist. Thereafter, Dr. Robinson gave up his professional license under California law in order to work with cancer patients.

"While still working at the Gerson Institute facility in 1997, I read an article in the *Townsend Letter for Doctors & Patients* which you wrote, Dr. Walker. I still reproduce it for patients to read when they suffer from gastrointestinal tract problems," says Dr. Robinson. "Learning about homeostatic soil organisms back then led me to search out these very special probiotics. Within about three days of taking them, all the pain I had been experiencing from Crohn's disease spasms just vanished, and they've not returned. The Gerson therapy had helped me to get rid of my cancer tumors, polyps, cysts, and parasites, but it's the HSOs™ that completely control my gut pain.

"When I counsel cancer patients now, especially if they have undergone radiation or chemotherapy, I advise them to ingest the HSOs™. These patients must replace the friendly gut bacteria which have been destroyed by conventional cancer treatment. As for me, now I am all better," affirms Dr. Scott Robinson. "I am happy with my health as maintained by the HSOs™."

### Continuing with Jordan's Introduction to HSOs™

Picking up the story about introducing his HSO™ product, Jordan Rubin continues: "All those queries from that first *Townsend Letter* article forced me into manufacturing the product that got me well. I worked directly with the original developer of HSOs™ and incorporated some of my own concepts for making people healthier; they have proven highly advantageous. Included in the formulation are 15 homeostatic soil organisms with product improvements being made all the time.

"Currently," he advises, "the probiotics comprising part of my formula are *Lactobacillus acidophilus*, *Lactobacillus bulgaricus*, *Lactobacillus delbreukii*, *Lactobacillus caseii*, *Lactobacillus caucasicus*, *Lactobacillus fermenti*, *Lactobacillus plantarum*, *Lactobacillus brevis*, *Lactobacillus helveticus*, *Lactobacillus leichmannii*, *Lactobacillus lactis*, *Bacillus licheniformis*, *Bacillus subtilis*, *Bifidobacteria bifidus*, and *Sacchromyces boulardi*."

So, in some way Crohn's disease did Jordan Rubin a favor, for it offered him the opportunity to share his gift with others. The young fellow's interest in his own health maintenance caused him to study nutrition, eventually becoming a certified member of the National Association of Nutritional Consultants (a CNC), a participant in the American Academy of Sports Medicine, a certified nutritional instructor, and the author of numerous magazine articles.

When recently I met Jordan in Boca Raton, Florida, five years after the termination of his illness, he had improved his appearance still further. Now, at age 25, he is completely free of Crohn's disease or any other illness. (see Photograph 3).

Based on experiences that had brought him to perfect health, he has been researching, manufacturing, and distributing a variety of new food supplements to health product wholesalers, health professionals, natural food stores, and medical consumers seeking to overcome a variety of illnesses. His newest product is the first and only protein powder made from goat's milk. The HSOs™ product that brought him a cure for his gastrointestinal dysfunction remains the cornerstone of his health program. He has given his thoroughly researched, ever-improving and evolving new and potent probiotic, the name *Primal Defense™*.

### Prominent Physicians Use Primal Defense™

During my investigations of this product, I interviewed 31 complementary and alternative medicine (CAM) professionals who use Primal Defense™ in their practices. Those interviewed included medical doctors, chiropractors, naturopaths, osteopaths, acupuncturists, nutritional counselors, colon hydrotherapists, and other CAM practitioners. Case reports and other positive statements from the osteopathic physicians and medical doctors were uniformly positive. Repeatedly, these doctors testified as to the product's therapeutic excellence.

James Privatera, MD, of Covina, California, a medical doctor for 30 years, says, "I use quite a bit of Primal Defense™ for tough cases of bowel toxemia and irritable bowel syndrome. My patients like it, and I attest to Primal Defense™ being a superior product for enhancing gut metabolism."

From Payson, Arizona, the highly respected physician, Garry F. Gordon, MD, affirms, "There is magic in Jordan Rubin's idea about the actions of his Primal Defense™. I employ this product personally to great advantage; for instance, it definitely changed my propensity to intestinal gas. I've tried all types of products from around the world but nothing else has helped me to overcome bloating and gas like this combination of HSOs™."

Osteopath Joseph Mercola, DO, of Schaumburg, Illinois states, "I have put literally thousands of people on Primal Defense™ which is incorporated into a full detoxification program. The product is an incredibly potent and effective agent for the treatment of inflammatory bowel disease (IBD), and most especially for this condition's subset, Crohn's disease. I recommend it to all of my IBD patients."

Dr. Mercola's associate, board-certified gastroenterologist Joseph Brasco, MD, also of Schaumburg, Illinois, says: "I believe Primal Defense™ is applicable as a food supplement for everyone, whether a person is sick or not.... Where people specifically find advantage in using Primal Defense™ is in"

situations involving chronic disease of gut origin. Since my expertise lies in the area of gastrointestinal disorders, this product is the primary therapy that I utilize on a routine basis. It is one of the main tools I employ for treatment of patients suffering from inflammatory bowel disease."

### **The Primal Defense™ Delivery System and Its Components**

Primal Defense™ is designed to supply the consumer with all of the living nutrients present in pristine and healthy soil. There are three components:

(1) The beneficial bacteria from both soil and plant life which include HSOs™ combined with very hardy plant-based probiotic organisms. They are designed to resist chlorine, fluorine, ascorbic acid, hydrochloric acid, heat, cold, and extremes of pH. These beneficial bacteria are extraordinary and can't be destroyed the way ordinary probiotics are. Upon reading the label of Primal Defense™, you may notice that there are no bacterial counts or Colony Forming Units (CFU) listed. That is because the probiotics contained in Primal Defense™ are integrated within the whole food substrate. These microbes are so hardy that no need exists to include billions of CFU in order to get the job done. In this case, it's not quantity; it's quality.

(2) These HSOs™ are delivered in a base of whole food concentrates, particularly green foods such as phytoplanktons and cereal grasses, which turn out to be an excellent medium for the probiotics. Thus, the probiotics in Primal Defense™ are not isolated but rather they grow within the whole food as not only the medium for growth, but also a rich source of nutrients such as minerals, vitamins, amino acids, and chlorophyll. These green plants are predigested in this manner so that they are 100% absorbable by the human body. Moreover, live enzymes are created as part of the product's delivery system.

(3) Present are quantities of PhytoSterols and Sterolins, which are plant lipids that aid the immune system to function at its peak level. These PhytoSterols/Sterolins are indispensable to attaining optimal health, but seldom do people ingest sufficient amounts of such plant lipids. Primal Defense™ furnishes the required optimal quantities of them.

Instead of using three separate sets of nutritional components, this probiotic product delivers all of them together as one live food matrix.

### **Lelia Devine, OMD, LAc Enjoys Using Primal Defense™**

"My clinical results with the use of Primal Defense™ for the relief of patients with intestinal diarrhea, constipation, or bloating have been excellent. I really enjoy employing that product because it works so well," says Lelia Devine, OMD, LAc, a doctor of Oriental Medicine and licensed acupuncturist practicing in Newhall, California. "Right now I'm finding it beneficial in the treatment of a chronic intestinal flu strain in the population of my area. Very little of what's out there, including herbs, are touching the current strain of influenza, but Primal Defense™ has become my product of choice for its treatment.

"Let me qualify my praise for the product, however; it's not knocking out this rare strain of flu all by itself, for adjunctive

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remedies are needed too. But those unique HSOs™ and other food stuffs in the Primal Defense™ formula do stop any recurrence of my patients' infections.

"As for therapy against *Helicobacter pylori* infection – as a cause of gastric ulcer, nothing works better for its eradication than Primal Defense™. And these probiotics are so much safer for my patients than taking antibiotics," says Dr. Devine. "The product's friendly bacteria immediately coat the stomach's lining and stops patients' heartburn, stomach pain, nausea, and bloating. Plus, Primal Defense™ is absolutely a God send for the elimination of *Candida albicans* infections. There is nothing I know of that could replace the HSOs™ for destroying those two particular organisms, one a bacterium and the other a fungus.

"To be perfectly frank, I own an herbal company which manufactures my own set of remedies," Dr. Devine admits. "But I've been unable to formulate a competitive product which relieves my patients' intestinal gas, bloating, belly aches, and other symptoms of gastritis as well as does Primal Defense™."

### **Dr. Irv Rosenberg Counsels on Taking Primal Defense™**

"I have personally been taking Primal Defense™ for over two years, and I am sure that is the reason I have perfect functioning of my gastrointestinal tract. It is quite evident to me that having regular, comfortable bowel movements comes directly from daily ingestion of HSOs™," says Doctor of Pharmacy Irving Rosenberg, proprietor of The Apothecary, a compounding pharmacy located in Bethesda, Maryland.

"Each week I counsel up to 20 cancer patients about appropriate nutritional practices for restoring their health, and the ingestion of Primal Defense™ invariably is among my first recommendations," Dr. Rosenberg states, "It is my intention that these cancer patients should maintain or improve their quality of life, and this product helps them accomplish it for themselves.

"The product works well for people suffering from the yeast syndrome, too. Their improvements are subtle but steady. They get better. Since 1981, I have been counseling clients who are beset by candidiasis, and I was called a quack and heretic by the media, but that's not the case any longer. Now I'm referred to as a visionary quite simply because products like Primal Defense™ have come on the market and my pharmacy makes them available. One of the wonderful parts about getting older is that we live the history of this evolving holistic health field," says Dr. Rosenberg, who recently reached his 70th birthday.

"More than eight million dollars of my compounding pharmacy's sales involves nutritional products. Jordan Rubin's Primal Defense™ has been reaching for the top of the market. It's among my nutraceutical best sellers, and it has achieved that status in a very short time," the pharmacist added.

"In my opinion, these homeostatic soil organisms should be taken routinely by all persons interested in preventive medical practices. For example, if you are about to travel to a third-world country, Primal Defense™ should be started as a food supplement about a week before your journey as a



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prevention against getting 'Montezuma's revenge.' It does a fine job as a repellent for parasites such as *Entamoeba histolytica*, *Giardia lamblia*, and the amoebic protozoa which causes dysentery," Dr. Irv Rosenberg states. "For such prevention, take one or two doses twice daily. Although containing probiotics, these pills don't need refrigeration since they become activated upon coming in contact with acidic liquid in the stomach."

### More Parasite Defense offered by Sheldon Nelson, DO

Speaking with me from Warren, Michigan, Sheldon Nelson, DO, does a lot of soft tissue manipulation for his patients, but nutrition prescribing comprises most of his treatment, especially for chronic illnesses. "Almost all people who consult me for the treatment of irritable bowel syndrome, leaky gut syndrome, chronic fatigue, candidiasis, Lyme disease, or infections get their gut flora changed to healthier consistencies by my prescribing Primal Defense™ for them," advises Dr. Nelson. "I invariably use one of the lactobacillus preparations, and the HSOs™ of Primal Defense™ are the top of the line, the 'Cadillac' of lactobacilli. It does more than just recolonize when I prescribe it for my patient.

"As the patient's body undergoes its detoxification, a kind of Herxheimer's reaction often sets in along with increases in bowel function. I have this patient drink large amounts of water, at least the number of ounces equivalent to half his or her body weight in pounds. Take the poundage, divide by two, and realize that those are the ounce equivalents of water that should be drunk. A 200-pound man would therefore need to drink 100 ounces of water, about three quarts daily," says Dr. Nelson. "Taking so much water combined with Primal Defense™ in quantity will lead them to good solid bowel movements and a normal gut.

"The HSOs™ are particularly effective for the treatment of parasites, since they work to enhance that whole cleansing function. One family had come to me en masse—six members—for the elimination of their hookworm," Dr. Nelson says. All of them took Primal Defense™ in amounts ranging from six a day for the teenagers to 20 daily for the father. They finally got rid of their parasites.

"In another situation, Harriet Clauson visited me for the treatment of her chronic fatigue, systemic candidiasis, obesity, and the stress of raising eight young children. Having no energy and experiencing overwhelming depression, she was at the point of collapse. Mrs. Clauson realized that she was eating junk foods which kept her malnourished despite being grossly overweight," states Dr. Nelson. "She was on antidepressants, prescription drugs to calm her gut, and antibiotics as therapy for recurrent bacterial infections of the sinuses and the ears and the skin. My treatment program included Primal Defense™ in a dosage that advanced in quantity each day, until she reached twenty-two daily. She stayed at that dosage for a month until she could back off the level of therapy to only two a day.

"Harriet Clauson's improvement steadily took hold so that she no longer needed antidepressants or other prescription drugs. She is eating correctly and liking the good food which

allows her to lose excessive weight in a healthy manner. To this point, Mrs. Clauson has lost 40 pounds and regained her energy." Dr. Nelson assures us. "Parasites which were once thriving in her gut have left her body in well-formed stools. There is no longer diarrhea or constipation for this patient, and it is due to the excellence of therapy that comes from taking HSOs™ faithfully," affirms Dr. Sheldon Nelson. "I see the same results in a lot of people."

### Natasha Campbell-McBride, MD, Uses Primal Defense™ for Her Son's Autism

Two years ago, through her contacts with the Autistic Society of Great Britain, registered nutritional counselor, Natasha Campbell-McBride, MD, medical director of the Be Healthy Nutritional Consultants Clinic of East Anglia, a suburb of Cambridge, England, learned of Primal Defense™. Parents attending this autism support group revealed that HSOs™ had become an important part of their children's diet. Dr. Campbell-McBride's seven-year-old son Normie, had been affected by autism from the age of three, and his condition was complicated by recurrent diarrhea. So, from another mother at the autism society, this physician acquired capsules of the HSO™ probiotic organisms specifically to relieve her son's loose bowels, which they did do. Simultaneously, she observed that the HSOs™ also slowly but steadily rid Normie of his autistic symptoms shown by his improvement in social interaction, the development of peer relationships, elimination of his use of repetitive language, and the stopping of repeat motor mannerisms.

A mother as well as a physician, Dr. Campbell-McBride is enthusiastic for Primal Defense™ as an autism treatment. "Children with autism do not have normal gut functioning," the physician explains. "Often they are infected with *Candida albicans* and clostridium, and the metabolites of these cultures cause havoc with the gastrointestinal tracts of these autistic children.

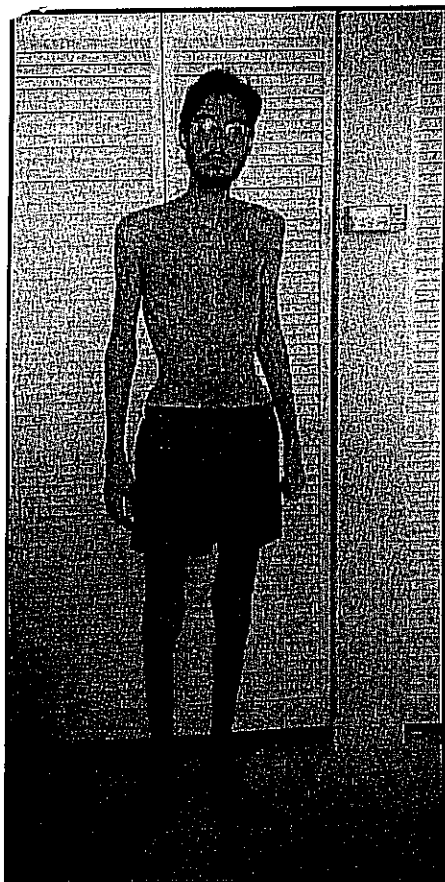
"Such infected children fail to develop normally. But if the parents put their little patients on a dairy-free diet and supplement their food with Primal Defense™, much improvement in their communication skills occurs," Dr. Natasha Campbell-McBride assures us. "By use of these probiotics, parents of autistic children will see a change for the better. Many symptoms of their autism disappear and do not return. This happened for my son."

### Resource

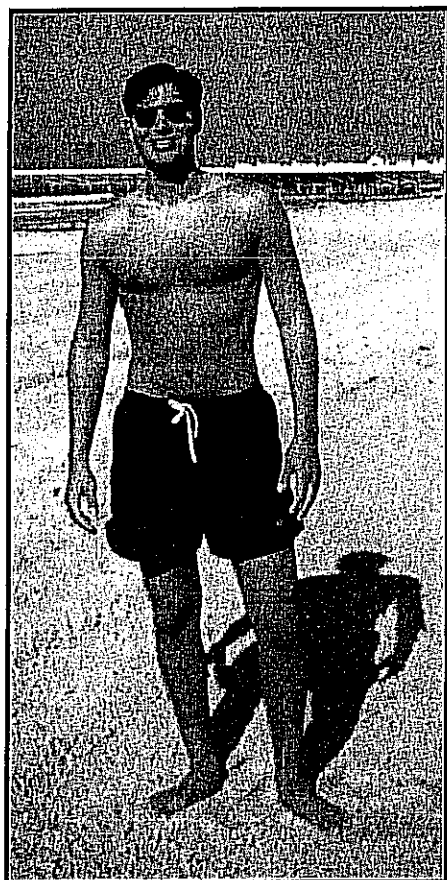
For more information about the homeostatic soil organisms in Primal Defense™ or to learn the location of an HSO™ supplier, contact the manufacturer, Garden of Life, Inc., 15419 - 69th Drive North, Palm Beach Gardens, Florida 33418 USA; tel. 800-622-8986 or locally 561-748-2477; FAX 561-575-5488; Email: defensecom@earthlink.net.

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**Jordan Rubin**



Photograph 1 (top left). Shown is Jordan Rubin before he was introduced to homeostatic soil organisms. Here Jordan is 19 years old (about to turn 20) when he stood six-foot, one-inch tall at a weight that had fallen to 104 pounds. Having been at death's door and just released from the hospital, here he remains exceedingly ill with Crohn's disease.

Photograph 2 (bottom left). A year and some months later, here is the same (but not the same) Jordan Rubin at age 21 with a weight gain to 170 pounds. Here we see him free of all medications for a full year. HSOs™ are his best medicine.

Photograph 3 (above). Here you see Jordan Rubin who is now 25 years old after thriving for five years on HSOs™ in the new food supplement that he manufactures and distributes as Primal Defense™. This Primal Defense™ formulation is the well-researched and ever-evolving product that saved Jordan's life, restored his health, and now helps to reestablish the health of thousands just as he had been.

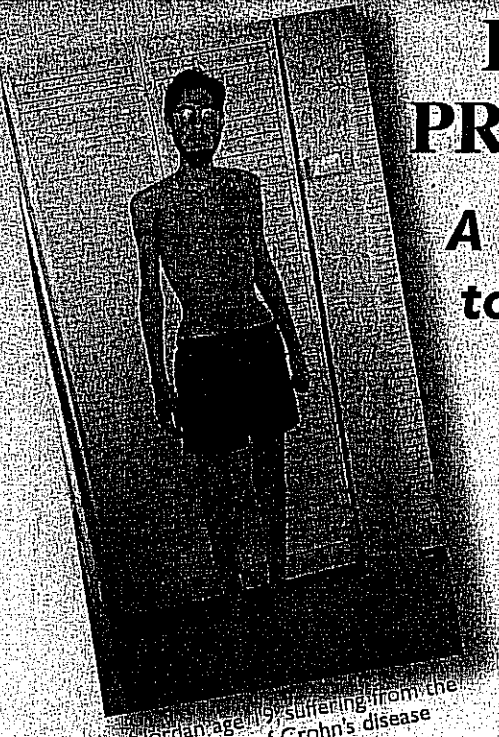


**One Man's Journey From Sickness to Health**

# PRIMAL DEFENSE

## BEYOND PROBIOTICS

*A Natural way  
to boost your  
Immune  
System*

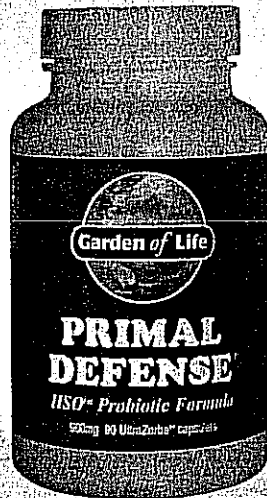


*Jordan age 15, suffering from the ravages of Crohn's disease*



*Jordan age 25, disease free and loving life*

- **Proprietary HSO™\*** Formula with 14 strains of probiotics
- Contains over 100 micronutrients and trace minerals
- Enhances the production of short chain fatty acids



- Facilitates the elimination of Viruses, Bacteria, Yeast, Fungus and Parasites
- Supports the body's natural production of Lactoferrin and Alpha-Interferon
- Provides naturally occurring "live" digestive enzymes

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