



S.K. Dash, Ph.D.

EDITOR'S NOTE: Dr. S. K. Dash is among the world's leading experts today in the field of probiotics. Dr. Dash is founder of America's leading probiotic company **UAS Labs**, which was the first company to introduce non-dairy probiotics; the first to introduce quality control standards for probiotics requiring a guarantee of viable bacteria; the first to package probiotics with nitrogen to improve the stability of the probiotics; first to prove that the **DDS®** brand of **DDS-1 acidophilus** can pass through stomach acid, implant in the intestines and multiply 100 to 200 fold; and, finally, the first company to incorporate the prebiotic fructooligosaccharides (FOS) with probiotics to enhance their growth in the intestines.

All Probiotics Are Not The Same

by S.K. Dash, PH.D.

For centuries, lactic acid bacterial strains have been used for the preservation of food for human consumption. Although the ancients wouldn't have identified the many nutrients formed by the actions of beneficial bacteria on foods, we now know our optimal health depends upon healthy gastrointestinal populations of beneficial bacteria.

My own interest in probiotics came while working as the director of the Food and Drug Administration for South Dakota from 1973 to 1979. I learned that some time earlier—in the 1950s—a probiotic product had been licensed by the U.S. Department of Agriculture as a drug for the treatment of a disease known as scour in pigs, which is caused by *E. coli* infection.

During my directorship, I discovered the probiotic to be 97 percent effective in combating *E. coli* infection in pigs, a cure rate as effective as the antibiotic neomycin sulfate, the standard treatment. Unlike antibiotics, the natural probiotic left no harmful drug residues in the edible portions of the pork.

Unfortunately, the pharmaceutical industry had already used millions of dollars in research, development, and promotions to dominate the market with antibiotics. There simply weren't the funds available from probiotic firms to compete with this behemoth. Little interest was shown in this wonderful approach to a serious medical problem.

Since this amazing discovery, I have made pioneering the use of probiotics as a standard supplement for a multitude of health conditions my mission. First, of course, we needed standards. That's why, while working for the FDA, I introduced probiotic product quality control standards that are now used by the entire probiotics industry.

I started my own company in 1979, UAS Laboratories, of Minnetonka,

A Guide to Quality Probiotics

Minnesota (www.uaslabs.com), to introduce probiotics to the American public. I had found that a particular strain of lactic acid bacteria known as DDS-1 *Lactobacillus acidophilus* had been extensively researched at the University of Nebraska and several research papers published showed the health benefits of this particular strain. But this DDS-1 strain had never been commercially manufactured and available to the consumer until UAS Laboratories offered it to the public as **DDS®-Acidophilus** capsules, tablets and powder in 1979. Later, we began manufacturing **DDS®-Junior** and **DDS®-Plus** using *L. acidophilus*, *Bifidus longum*, *Bifidus infantis* and fructooligosaccharides.

Not All Probiotics Are The Same

Unfortunately, I have also found that with the explosion of consumer interest in probiotics that not all supplements are the same. All probiotic products do not have similar nutritional and therapeutic values. The name probiotic does not mean anything unless it contains the right strain, in the right amount, in the right formulation and in the right (viable) condition for the intended use.

Not surprisingly, researchers examining probiotic products have found that some 70 to 80 percent of samples tested do not measure up to their label claims. These researchers have found that about half of the tested samples did not have even 10 percent of the claimed number of live microorganisms as listed on their labels. Some products even contain undesirable microorganisms not listed on the label.

I want you to be able to get the best probiotic supplements available. Here

are some tips for being sure that you purchase a quality supplement:

- All probiotic supplements lose their potency when they are exposed to oxygen, moisture, and heat. For that reason, probiotic supplements should be refrigerated to maintain their potency and viability. Many supplements are not refrigerated, however, and quickly lose their potency.
- Many probiotic combinations lack research. The manufacturers use many different bacteria simply to brag about how many bacteria they have. No studies exist showing they are compatible and experts agree too many different bacteria may be antagonistic to each other. Some bacteria are not even natural to the human gut and may pose problems down the road.
- I believe it is imperative to select bacteria for incorporation in probiotic supplements that are on the federal GRAS (Generally Recognized As Safe) list. For example, *Lactobacillus acidophilus* species and some *Bifidobacterium* species are considered GRAS.
- Following on this, any new bacterial culture that has no history of prior safe use in humans should be subject to toxicological studies prior to incorporation in any probiotic supplement. We want to know that the bacteria are benefiting, not harming the host.
- Additionally, the bacteria should adhere to the intestinal walls and proliferate. The probiotic strain must also be proven to survive stomach acids in live human subjects. Not all strains of *Lactobacillus acidophilus* and other probiotic strains are acid-resistant. Selecting acid-resistant strains of *L. acidophilus* and

other probiotics, as offered by UAS Laboratories, is the key to the success of the probiotic supplement.

- Prefer well-studied probiotic bacteria. Why stick with a few proven probiotic bacteria when multiple combinations sound so enticing? Results. Having the very best probiotic bacteria in sufficient quantities will outperform combinations of convenience, which are cheaper to produce and sound impressive, but are not the superior bacteria your body needs.
- Some companies are marketing their products as *Lactobacillus sporogens*, which are not real *Lactobacillus* products. Consumers should stay away from any unknown and unproven products.
- Prefer non-dairy probiotics if you have dairy allergies or yeast infections.*
- Exposure to oxygen decreases the stability of probiotic bacteria. For this reason, eliminating oxygen from and including nitrogen in probiotic supplement bottles can enhance the stability of probiotics. Prefer products with nitrogen-flushed packaging, which helps keep the probiotic viable longer.
- In order to know more about the keeping qualities of a probiotic product, it is important to know that the supplement is tested for viable microorganisms at the time of manufacturing and at the expiration date. This quality control procedure is important to the manufacturer as well as the consumer. The viable cells are guaranteed as CFU (colony forming units) per gram at the time of probiotic supplement packaging. If the supplement does not list viable cells, or does not list the amount in CFU form, it may not be a quality supplement. Consumption of probiotic supplements with two to five billion CFU per day is necessary to have any chance of offering significant beneficial effects.
- Fortification of probiotics with prebiotic fructooligosaccharides (FOS) enhances the value of the probiotic supplement by providing a nutrient that selectively enhances the growth of friendly cultures. ❖

References posted at www.freedompressionline.com

*All UAS Laboratories probiotic supplements are non-dairy.

Editor's note: We advise our readers to stay with proven, well-researched probiotics, such as the DDS® probiotics from UAS Laboratories. They are safe; they work, and they're widely available at health food stores.

A Healthy Living Guide to Quality Probiotics from UAS Laboratories

Probiotics should be used by everyone to promote overall health by maintaining normal intestinal flora, especially for persons with digestive disorders and following antibiotic therapy.

Multi-Flora Probiotic for Adults



provides DDS®-1 strains of *Lactobacillus acidophilus*, *Bifidobacterium longum*, and FOS.

SUGGESTED USE—Take two or three capsules on an empty stomach, preferably in the morning.

DDS®-Plus: Probiotic for Adults



provides special strains of *Bifidobacterium longum* and *Lactobacillus acidophilus* (DDS-1 Strain) with FOS.

SUGGESTED USE—Take two or three capsules on an empty stomach, preferably in the morning.

DDS® Acidophilus Capsules



are the source of the DDS®-1 strain of *Lactobacillus acidophilus* and FOS.

SUGGESTED USE—Take two capsules on an empty stomach, preferably in the morning.

DDS® Acidophilus Powder



is the source of the DDS® strain of *Lactobacillus acidophilus* and FOS.

SUGGESTED USE—Take 1/4 teaspoonful mixed in water before meal on an empty stomach, preferably in the morning.

DDS® Acidophilus Tablets are the



source of the DDS®-1 strain of *Lactobacillus acidophilus* and FOS.

SUGGESTED USE: Take two tablets before each meal on an empty stomach.

DDS®-Junior: Probiotic for Children



is the source of special strains of *Bifidobacterium infantis*, *Lactobacillus acidophilus* (DDS®-1 strain) and FOS and is designed for infants and children as an aid in maintaining normal intestinal flora, especially for children

experiencing digestive difficulties and following antibiotic therapy.

SUGGESTED USE—Mix 1/4 teaspoon (one gram) with water and feed to child daily. May be added to baby foods, formula, or liquids. Must be fed immediately once mixed in food or water.

PLEASE NOTE: These dosages may be doubled for therapeutic uses.

Availability of UAS Laboratories Probiotic Formulas

The good news is that UAS Laboratories probiotics can be found at natural health centers nationwide. But if you need help in finding a store in your area, call them toll free at (800) 422-3371. Or visit their website at www.uaslabs.com and use their store locator service.

FYI: When to Take Probiotics

Health professionals recommend probiotic supplements for candidiasis (yeast infection), digestive disorders (including diarrhea and constipation), gastritis, lactose intolerance, gas, heartburn, irritable bowel syndrome (including colitis and Crohn's disease), immune dysfunctions and as a follow up to antibiotic therapy.