

What makes DDS-1 the powerful acidophilus?

DDS-1. One probiotic. So many uses. So much clinical validation.

What are the important aspects of DDS-1? Why is DDS-1 considered to be one of the most reliable, safest, and effective of all probiotic products today? This first of two reports will give you insight about how DDS-1 acidophilus works and why it is beneficial to make this a part of your diet.

You've probably seen the DDS-1 name at your local health food store. No, this is not some miracle drug, but, rather, a friendly bacteria known to most of us as *Lactobacillus acidophilus*. While there are many different varieties of beneficial probiotic bacteria being sold today, DDS-1 is considered to be one of the most important because of its long-standing scientific validation and proven ability to colonize in the human gastrointestinal tract.

Studies illustrate that DDS-1 can lower cholesterol and relieve gastrointestinal (GI) tract disorders like diarrhea as well as improve digestion. DDS-1 even contains a highly unique and potent antibacterial substance, as well as demonstrating cholesterol-lowering and anticancer effects.

BENEFICIAL BACTERIA: GI JOES OF YOUR GI TRACT

To better understand the principles of beneficial probiotics, gut health can be likened to maintaining your front lawn. *L. acidophilus* bacteria represent healthy green grass, while *Candida albicans* and *E. coli* are weeds threaten-

ing to overcome the former. *L. acidophilus* keeps these weeds in check.

According to *Natural Products Industry Insider* writer Heather Granato, the digestive tract contains more than 100 trillion bacteria that altogether weigh four pounds. The 400 to 500 strains of bacteria within this group form the front line against invading organisms and help the gastrointestinal tract absorb nutrients and maintain overall wellness. In addition, *L. acidophilus* and related beneficial bacterial strains help the absorption of calcium, copper, iron, and magnesium. They also help the body to produce B-complex vitamins as well as vitamin K.

THE HISTORY OF DDS-1

Yet, there is a particular strain of *L. acidophilus* that requires special attention—DDS-1. It is taken from the strain found in our bodies, and therefore may be the reason why it survives very well both the acid and basic por-

tion of our gastrointestinal tract. DDS-1 has been heralded as the ultimate probiotic; it is backed by U.S. patent, with its antibacterial and anticarcinogenic properties extremely well documented. Khem M. Shahani, Ph.D., researched the DDS-1 strain of *Lactobacillus acidophilus* at the University of Nebraska in 1959 and named it after the Department of Dairy Science (hence the DDS suffix).

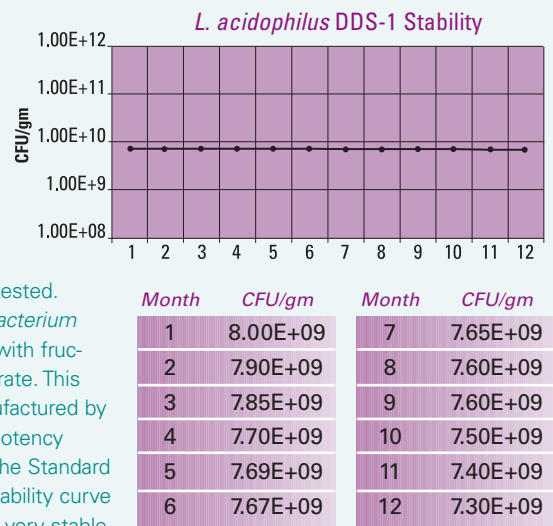
For more than 25 years, *Lactobacillus acidophilus* DDS-1 strain has been marketed commercially worldwide as an effective probiotic strain. It has been the subject of a variety of *in vitro*, human and animal studies for more than 40 years. The focus of the efficacy research on this strain has been on its nutritional, antibacterial and anti-pathogenic, anti-carcinogenic and technological properties. At the same time, the microbiological and technological properties of DDS-1 have been studied.

However, it was never commercially manufactured and available to the consumer until 1979, when Dr. S. K. Dash, President of UAS Laboratories, offered it to the public as DDS®-Acidophilus (capsules, tablets, powder).

Stability of DDS-1

Of course, for probiotics to be of any use, they need to retain potency. With the incorporation of a patented technology from the University of Wisconsin, DDS-1 can remain stable for up to two years. Stability of DDS-1 was tested. DDS-1 was combined with *Bifidobacterium longum* at equal ratio and fortified with fructooligosaccharide at a five percent rate. This supplement called DDS-Plus, manufactured by UAS Laboratories, was tested for potency every month for 12 months using the Standard Methods for Dairy Products. The stability curve shows that *L. acidophilus* DDS-1 is very stable and the loss of potency was about seven percent in one year.

In a time when so many probiotic products lack proven efficacy, it should be reassuring to the most discriminating and value-driven shoppers that UAS Labs produces premiere probiotics. Additional independent studies from organizations such as ConsumerLab.com have further confirmed that UAS Labs' DDS-1 strain delivers on its label promises. No wonder UAS Labs is a *Healthy Living* smart shopper choice.



NUTRITIONAL BENEFITS OF DDS-1

Laboratory and clinical trials have shown the importance of maintaining a healthy level of *L. acidophilus* for overall health. And DDS-1 is known to work extremely well, which is why it is one of America's leading probiotic lines and sought after by savvy, knowledgeable consumers who are interested in both value and quality.

ANTIBACTERIAL EFFECTS. A compound with antibacterial properties is produced by DDS-1. Named "acidophilin," this compound was isolated from milk in which DDS-1 was grown. Other *L. acidophilus* strains did not produce significant amounts of this compound. Acidophilin fractions were concentrated and tested against some common food-borne pathogens where it was shown to inhibit *Clostridium botulinum*, *Clostridium perfringens*, *Escherichia coli*, *Proteus mirabilis*, *Salmonella enteritidis*, *Salmonella typhimurium*, *Staphylococcus aureus*, and *Staphylococcus faecalis*. As an important follow up to this *in vitro* demonstration of activity, additional studies demonstrated the effectiveness of acidophilus milk on decreasing the carrier state and on the incidence and duration of salmonella and shigella dysentery in children.

Against Staph

The ability of DDS-1 to inhibit *Staphylococcus aureus* was further demonstrated. *S. aureus* growth was inhibited in acidophilus yogurt, likely due to a combination of activity of hydrogen peroxide, lactic acid and bacteriocin.

Against H. pylori

More recently, researchers have reported the ability of DDS-1 to inhibit in a co-culture assay *Helicobacter pylori*, the bacterium thought to be responsible for ulcers.

Against UTIs

There is growing evidence suggesting that probiotics can be effective in the prevention of recurrent urinary tract infection (UTI). The proposed mechanism of action includes inhibition of growth and adhesion of pathogens to the vaginal and urethral mucosa (inner lining). In a case study, *L. acidophilus* DDS-1 with two billion viable organisms was given twice daily for a month and followed up with once daily to patients. It showed positive effects.

Against Candida albicans

In a case study at a primary health care clinic, DDS-1 was given to 42 patients for a period of three months, 22 of whom reported improvement in levels of *Candida albicans*.

LOWERING CHOLESTEROL. The cholesterol-lowering effect of DDS-1 was first investigated in 1978 by D. K. Sinha. He observed that adding four million *L. acidophilus* DDS-1 cells per milliliter of milk lowered cholesterol significantly.

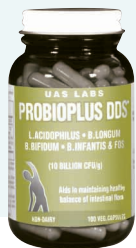
DIGESTIVE SUPPORT. DDS-1 produces enzymes, such as proteases and lipases, which can help with the breakdown of protein and fats. Acidophilus milk (both fermented and unfermented) containing DDS-1 was shown to have a higher protein digestibility than heated milk when tested in rats. ■

Unabridged article with references available at www.freedompressonline.com.

SOURCE: *Review of Scientific Evidence for Efficacy of Lactobacillus acidophilus DDS-1 as a Probiotic Strain* by S.K. Dash

Resources

DDS-Probiotics are available in the refrigerator section of fine health food stores. Ask for DDS-Probiotics from UAS Laboratories. Do not settle for substitutes. UAS Laboratories
9953 Valley View Road
Eden Prairie, MN 55344
Toll-free—1-800-422-3371
Fax—952-935-1650
Website—www.uaslabs.com



PROBIOPLUS DDS®
(100 Vegetarian Capsules)
Contains—DDS®-1 *L. acidophilus*, *B. longum*, *infantis* & *bifidum* with FOS.
10 billion CFU*/gm (2 capsules)
Suggested use—Take 2 capsules daily before morning meal.

*colony forming units



DDS®-100 Acidophilus Capsules, Tablets or 2.5 oz. Powder
Contains—DDS®-1
L. acidophilus with FOS.
2 billion CFU/gm (2 capsules or 1/4 tablespoon)
Suggested use—Take 2 capsules, tablets or 1/4 tablespoon powder daily before morning meal.



DDS®-PLUS Capsules/Powder
(100 caps or 2.5 ounce Powder/Bottle)
Contains—DDS®-1
L. acidophilus & *B. longum* with FOS.
5 billion CFU/gm (2 capsules or 1/4 tablespoon)
Suggested use—Take 2 capsules or 1/4 tablespoon powder daily before a meal.



DDS®-Junior (2.5 oz Powder)
Contains—*B. infantis* & DDS®-1 *L. acidophilus*.
5 billion CFU/gm (1/4 teaspoon)
Suggested use—Mix 1/4 teaspoon DDS-Junior powder with water and feed to child.