



# PROBIOTICS

## What you may not know

The marketing's aggressive, but do probiotics really work? **Kavita Devgan** brings you some expert know-how

### What Are Probiotics?

A Greek word meaning “for life”, probiotics are defined by WHO as, “live microorganisms which, when administered in adequate amounts, confer a health benefit on the host” (FAO/WHO, 2001). India’s probiotics market is comparatively small but growing, says Jyothi Prasad, chief dietitian, Manipal Hospital, Bengaluru.

### How Do Probiotics Work?

‘There are billions of (good) bacteria in our gastrointestinal tract, where they serve as a key line of defence against toxins that invade our body. An appropriate microbial balance in the intestine is crucial for health,’ explains Dr Rommel Tickoo, consultant, Internal Medicine, Max Hospital, Delhi. It is believed widely in Japan, where probiotics originated (even ayurveda endorses the view), that a healthy intestinal tract leads to longevity. ‘Probiotics suppress the growth of harmful bacteria and help increase the number of beneficial bacteria in the intestine. This leads to improved nutrition absorption and regulated bowel movements, providing relief from common digestive disorders, irritable bowel syndrome and infections. They inhibit growth of bacteria responsible for stomach ulcers, and improve digestion of lactose (sugar present in milk), reducing intestinal bloating, flatulence and discomfort,’ Dr Tickoo adds.

*Banish the troubled stomach - get on to probiotics*

## Wait, That's Not All!

**Counter junk:** Probiotics are the perfect antidote to junk food, countering the junk food induced imbalance created in your digestive system. 'Junk food is usually low on fibre, essential to improve the motility (movement) of the intestines. Moreover, excessive fat intake and preservatives in junk foods suppress good bacteria and increase bad ones,' says Masanobu Nanno, Ph.D, associate director of Yakult Central Institute for Microbiological Research in Japan.

**Pair with antibiotics:** A new analysis of 82 earlier studies (done by the southern California Evidence-Based Practice Center, RAND Corp. in Santa Monica, US) finds that probiotics have the potential to alleviate diarrhoea that afflicts about one-third of people treated with antibiotic medications. Probiotics reduced the risk of antibiotic-associated diarrhoea by 42 percent (among 11,811 participants), according to the analysis (published in May 2012 *Journal of the American Medical Association*). 'Antibiotics kill good bacteria in the intestines too along with the bad so it makes sense to replenish them with probiotics,' says Dr Tickoo.

**Increased immunity:** Studies show that there are significant benefits outside the gastrointestinal tract too, such as improved immunity, and possible cancer prevention. 'Lactobacillus bacteria have been found to restore the activity of natural killer cells in our bodies (NK cells protect us from viruses, bacteria and other disease-causing organisms and are the mainstay of our immune system), that usually diminishes due to smoking, lack of physical activity, and inadequate sleep. Prevention of cancer and its recurrence is closely



## Maximise Benefits

- Choose carefully as some products have sterile bacteria that cannot colonise the intestines. The key is to get the right strain: look for lactobacillus or bifida bacteria, in suitable quantity (a minimum of 10 million bacteria per bottle is recommended).
- Consume regularly, ideally daily to help the good bacteria thrive; one to two portions a day should be enough.
- They should be had after a meal; as on an empty stomach they get attacked by the acid in the stomach before reaching the intestines.

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related to the immune system, thus probiotics have a role in cancer prevention too,' explains Yuichiro Yamashiro, Professor, Pediatrics and adolescent medicine, Juntendo University, Japan.

In some cases, probiotics have proven to be a more effective form of treatment than even prescription medicine. Researchers from Spain say that probiotic strains such as

bifidobacterium have an incredible success rate in fighting inflammatory bowel diseases such as ulcers. In fact, ulcers caused by the helicobacter pylori bacterial strain may be more effectively treated by beneficial probiotics rather than by conventional antibiotics, according to a study published in February 2011 in the *Journal of Applied and Environmental Microbiology*.

*It's not only safe but recommended during pregnancy*



### Age No Bar

Studies in Japan have found that if no intervention is done, preterm babies don't develop good bacteria till about three weeks after birth. In Japan now, as a rule, almost 90 percent preterm babies are administered probiotics and this has improved their survival rate. Apparently babies who are delivered normally get beneficial bacteria from their mothers which helps boost their immunity substantially, whereas C-section babies miss out on this benefit and thus tend to have comparatively weaker immunity. Beneficial bacteria that live in a baby's intestine are important for an infant's health, growth, and the ability to fight infections. Two recent studies published in the *Journal of Parenteral and Enteral Nutrition* published by the researchers of University of

Illinois support these claims. Professor Yamashiro adds that breast-fed babies get this protection via mother's milk naturally.

### A Woman's Friend

Usually the dominant lactobacilli bacteria (good bacteria) colonise the vagina making it too acidic for harmful microorganisms to survive but often due to poor hygiene, excessive antibiotics, spermicides, and birth control pills, these good bacteria die and dramatically reduce in number thus disturbing the good versus bad bacteria balance. Supplementation with probiotics to boost the body's overall population of lactobacilli can help restore the balance of microflora in the vagina and thus help prevent common female problems such as bacterial vaginosis, yeast infection, and urinary tract infection.

### PROBIOTICS IN INDIA

Probiotic milk from **Yakult** (fermented milk has its own unique strain: lactobacillus casei strain Shirota)

**Nutrifit** from Mother Dairy (contains LA5 friendly bacteria; available in strawberry and mango flavours)

**b-Activ** yogurt from Mother Dairy (contains BB-12 friendly bacteria)

Prolife icecream from **Amul** (enriched with live beneficial cultures; available in five flavours)

**Nestlé Actiplusdahi** (besides probiotics, it also supplies extra fibre)

Tablets and capsules from pharma companies such as **BIFILAC Capsules** by Tablets India Ltd.

**Binifit Capsules / Sachets** marketed by Ranbaxy, **Becelac PB Capsules** marketed by Dr. Reddy's Labs and **Econova Capsules** marketed by Glenmark.

*Take these under doctor's supervision only.*



**'Probiotics benefit the elderly as their immunity is suppressed due to factors such as age, lifestyle diseases, lack of exercise and so on. Probiotics can help restore the balance,' says Dr Tickoo**