



Friendly Bacteria in Yogurt Boosts Immune Function in the Elderly

Remember the *National Geographic* spreads on the yogurt-eating centenarians in Bulgaria? A recent study on a friendly bacterium found in yogurt may provide some insight into why they live to such a robust old age.

Normally, as we age, our cellular immunity declines. Cellular or non-specific immunity is the immune system's first strike force and involves special white cells that immediately attack anything perceived as an invader to prevent its entry into the body, or if it does manage to gain entry, destroy it. So, cell-mediated immunity is critically important to our ability to resist infection and is also essential in protecting against cancer.

A strain of friendly or pro-biotic bacteria in yogurt, *Bifidobacterium lactis*, is known to stimulate the immune response, so researchers in New Zealand decided to see if this bacterium could enhance cellular immunity in elderly subjects.

They recruited 30 healthy elderly volunteers ranging in age from 63 to 84 year to participate in a 3-stage dietary supplementation trial lasting 9 weeks. During the first 3 weeks, study participants were given a glass of low-fat milk twice a day to establish a base-control diet. During the next 3 weeks, they were given milk to which *Bifidobacterium lactis* had been added-either in a typical dose (5×10^{10} organisms per day) or a low dose (5×10^9 organisms per day). During the final 3 weeks, they once again were given low-fat milk without added *Bifidobacterium lactis*.

When the researchers evaluated the numbers of their various white cells and their tumor-cell killing activity, significant increases were seen in the proportions of total, helper (CD4(+)), and activated (CD25(+)) T lymphocytes and natural killer cells in the subjects' blood after the consumption of *Bifidobacterium lactis*.

In addition, their immune cells' ability to phagocytize (engulf and destroy) invaders and the tumor cell killing ability of their natural killer cells was also increased.

And, the greatest improvements in immunity were found in those subjects who had had poor immune responses before receiving *Bifidobacterium lactis*.

In general, both the typical and the low dose of *Bifidobacterium lactis*, had similar effectiveness.

The researchers concluded that *Bifidobacterium lactis* could be used as an effective means of enhancing cellular immunity in the elderly. But why wait until you're 63 to reap the benefits of including yogurt in your healthy way of eating? You, as well as

your parents and grandparents can enjoy this cool, creamy delight virtually every day- there are so many ways yogurt can be added to your snacks and meals.

Some of our summer favorites are cooling cucumber salad and yogurt parfaits. Make the salad by mixing chopped cucumber and dill weed with plain yogurt and sweeten with a little seasoned rice vinegar if desired. Yogurt parfaits, a visual as well as delicious treat, can be presented in a large wine glass. Simply alternate layers of vanilla yogurt with your favorite summer fruits.

Yogurt is also a wonderful base for virtually calorie-free creamy dips and salad dressings. For a dip, just add the desired spices to a cup of plain yogurt, stir and serve. For salad dressings, put plain yogurt in the blender with a little water or rice vinegar to achieve your desired consistency, then add your favorite herbs and spices.

When purchasing yogurt, for the most health benefits, look for yogurt made from organic milk that features "live active cultures" or "living yogurt cultures" on the label.

To learn more about the many other benefits of this immune-supportive member of the World's Healthiest Foods, click [yogurt](#).

For some exceptional recipes featuring yogurt, click on the [Recipe Assistant](#), select yogurt on the healthy foods list, and click on the Submit button. A list containing links to all the World's Healthiest Foods' recipes containing yogurt will appear immediately below.

Reference: Gill HS, Rutherford KJ, Cross ML, Gopal PK. Enhancement of immunity in the elderly by dietary supplementation with the probiotic *Bifidobacterium lactis* HN019. *Am J Clin Nutr* 2001 Dec;74(6):833-9.

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