

Beta 1,3/1,6 Glucan

& Colds and Flu

“Beta-1,3, D glucan is a potent macrophage stimulant and is beneficial in the therapy of bacterial, viral and fungal diseases.”

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Yeast beta glucan has been proven effective against colds, flu and other viruses – good news during the current vaccine shortage.

The flu is a contagious respiratory illness caused by influenza viruses. It can cause mild to severe illness, and at times can lead to death. Every year in the United States, on average, 5% to 20% of the population gets the flu; more than 200,000 people are hospitalized from flu complications; and approximately 36,000 people die from the disease. The flu causes 38 million missed school days and more than 20 million lost workdays each year.

Some people are at high risk for serious flu complications; these include older people, young children, and people with certain health conditions, including pregnancy.

In the view of most doctors, the best way to prevent the flu is to get a flu vaccine “shot” each fall. Unfortunately, there’s a severe shortage of vaccine this winter, with only about one million doses available nationwide, almost 50 million doses short of what was expected. Consequently, health authorities are “rationing” the vaccines,

making them available only to those at highest risk, who include children 6-23 months old, people 65 and older, people with underlying or chronic medical problems, pregnant women, nursing home residents, health care workers who directly care for people at high risk of flu complications, child care workers who take care of children under age 2, and children who regularly take aspirin. But the available vaccine will still not be sufficient to protect all of the above.

Colds are less severe than flu, but they still have a dramatic effect on all of us. The following statistics show just what an effect on the society this viral illness can have.

- In an average year, Americans suffer 1 billion colds.
- Students lose 22 million school days annually from colds.
- Nearly everyone will get at least one cold this winter.
- One in five people who travel will catch a cold within a week of flying.
- Adults average two to four colds a year; preschoolers get five to nine colds per year.

The good news is, beta glucan provides natural protection against flu, colds, and other pathogenic challenges.

Beta glucan is a supplement derived and purified from the cell wall of common baker’s yeast (*Saccharomyces cerevisiae*). Research has shown* that beta glucan provides powerful support for our immune systems, and helps our bodies defend against a wide range of viral and bacterial infections.

This is especially important in the case of those with compromised immune systems, since vaccines work better with a healthy immune system. Since beta glucan supports the immune system to provide its protection, it can be effective for those who would normally gain less benefit from conventional vaccines.



The efficacy of beta glucan has been demonstrated against a broad range of pathogens, including virus, fungi and antibiotic-resistant bacteria. In this experiment, half of the animals given a lethal dose of influenza and treated with beta glucan survived, compared with none of the untreated animals.

Studies* have shown beta glucan's effectiveness against heavy lethal doses of the influenza virus, with survival rates increasing from zero in the control group, to better than 50 percent in the group receiving the beta glucan.

How Beta Glucan Works

Beta glucan provides protection against diseases by enhancing four key immune responses.*

First, it primes macrophages, neutrophils and natural killer (NK) cells to defend the body against a broad range of foreign challenges.

These cells are chiefly responsible for destroying pathogens and tumor cells.

Second, it enhances the ability of these cells to move from the peripheral circulation of the body to the site of the challenge or attempted "invasion" by a pathogen.

Third, beta glucan enhances the ability of these innate immune cells to phagocytize, or "eat" pathogens.

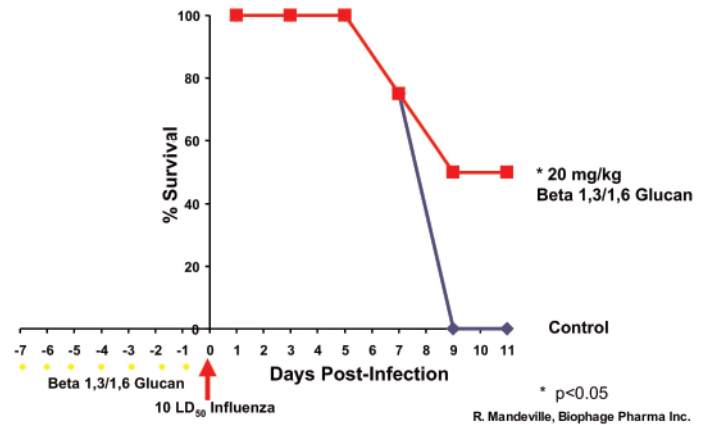
Finally, beta glucan enhances the production of oxygen intermediates and other agents that act to destroy the disease challenge.

The end result is an enhancement of the body's ability to fight against pathogenic challenges – whether microbial, fungal, viral or cancer-related.

Not all beta glucan supplements are created equal.

Beta glucan needs to be highly purified in order to be effective. Essentially, the outer layers of the yeast cell need to be removed to expose the beta glucan, so that it can bind to the receptor sites of the innate immune cells.

Influenza Protective Effect of Daily Prophylactic Oral Dosing of Beta 1,3/1,6 Glucan



The purification process should also remove mannoproteins and yeast residues. These can cause adverse effects in many people, and also reduce the overall effectiveness of the beta glucan. This purification process is costly, however, so unfortunately, some of the inexpensive brands of beta glucan take some short cuts in this area, and are minimally purified, at best. In fact, some manufacturers simply buy and package unprocessed baker's yeast as a supplement.

Accordingly, it's important that you do some of your own research when investigating beta glucan products – and look at the research that's been performed using the supplements – to make sure that you get as pure a form as possible. Be sure that independent studies were performed using the specific brand you're considering, and beware of "borrowed" research and other misleading marketing tactics. If you're not sure you're getting a good brand of beta glucan supplement, you could be paying for an almost completely ineffective powder placebo.

Protect yourself without side-effects

Since beta glucan is a natural supplement derived from a food, it is safe for people of all ages, as well as being one of the most powerful protectors against foreign invaders available.

This cold and flu season, even though there is a dramatic shortage of flu vaccine, you can still effectively protect yourself against these illnesses, and feel good all winter long.

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