

Beta Glucan and the Fight Against Cancer

 drjockers.com/beta-glucan/

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The Health Benefits of Beta Glucan

Much of the chronic disease of the 21st century is due to a breakdown in the coordination and balance of the immune system. Immunomodulation is a key term that refers to the control and coordination of the immune system.

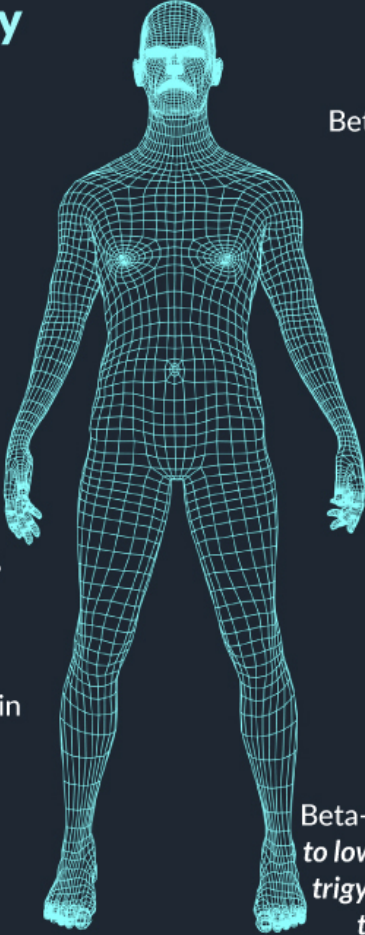
Specific herbs, nutrients and botanical co-factors help to improve the immunodulatory systems of the body. Beta glucans have been shown to be one of the best immunomodulating substances with powerful health benefits.

The immune system is designed to be highly sensitive to the presence of pathogenic microorganisms that pose a threat to the body. It is also designed to produce a strong inflammatory reaction with minimal collateral damage to the body.

When the body becomes overstressed it impairs the coordination of the immune system. This can lead to lowered or elevated immune activity. One with a lowered immune activity is at risk for various infections and cancer cell development. An individual with elevated immune activity is at risk for chronic inflammatory disorders such as allergies and asthma and auto-immune disorders.

Beta Glucans Work For Your Whole Body

- ▶ Beta-glucans stimulates the immune system in *radiotherapy and chemotherapy*, and also *reduce the risk of radiation*.
- ▶ Beta-glucans help to prevent *bacterial or viral infections, respiratory infections, chronic fatigue syndrome* and other forms of chronic illness.
- ▶ Beta-glucans moderate the overactive immune system, thus, *reduces allergies and auto-immune diseases*.
- ▶ Beta-glucans *inhibit free radicals* in the body, thus is *anti-aging*.
- ▶ Beta-glucans stimulates the immune system in *radiotherapy and chemotherapy*, and also *reduce the risk of radiation*.



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- Beta-glucans promotes a sense of safety, thus, help to *promote weight management*. ◀
- Beta-glucans help to *moderate highs and lows of blood sugar* that can be difficult for *diabetics* and others with glucosemetabolic problems. ◀
- Beta-glucans enhance and maintain *moisture within skin, promote wound healing and reduce inflammation*. ◀
- Beta-glucans help to *relieve constipation thus promote detoxification*. ◀
- Beta-glucans soluble fibers can help *to lower the LDL (bad) cholesterol and triglycerides* in your blood, can help *to reduce cardiovascular diseases and strokes*. ◀

Beta Glucan and the Immune System:

Beta glucan is a powerful immune stimulating compound found in several mushrooms, yeasts and other foods. Beta glucan is a polysaccharide that is made up of multiple sugar molecules linked together. The major beta glucan molecule is called 1,3-D glucan.

Polysaccharides are a diverse class of macromolecules that have a high capacity for carrying biological information due to their large structural variability. Polysaccharides interconnect at various points and form a wide range of branched structures. The position and length of the branching gives them specific labels such as the Beta 1,3D glucan which you can learn more about here.

Beta glucans are known by scientists as “biological response modifiers” that bind to the surface of innate immune cells which allows the cells to have better coordination in their attack. This reduces the tendency towards auto-immune reactions and hyperinflammatory activity when the body is under attack.



How The Immune System Works with Beta Glucan

Two Major Components of Immune System

- Innate Immune Response
- Acquired Immune Response

- **Beta Glucan works to activate both components of the immune system.**
- **In the Innate Immune system, Beta Glucan binds with macrophages, activates and increases their availability to identify and destroy foreign organisms.**

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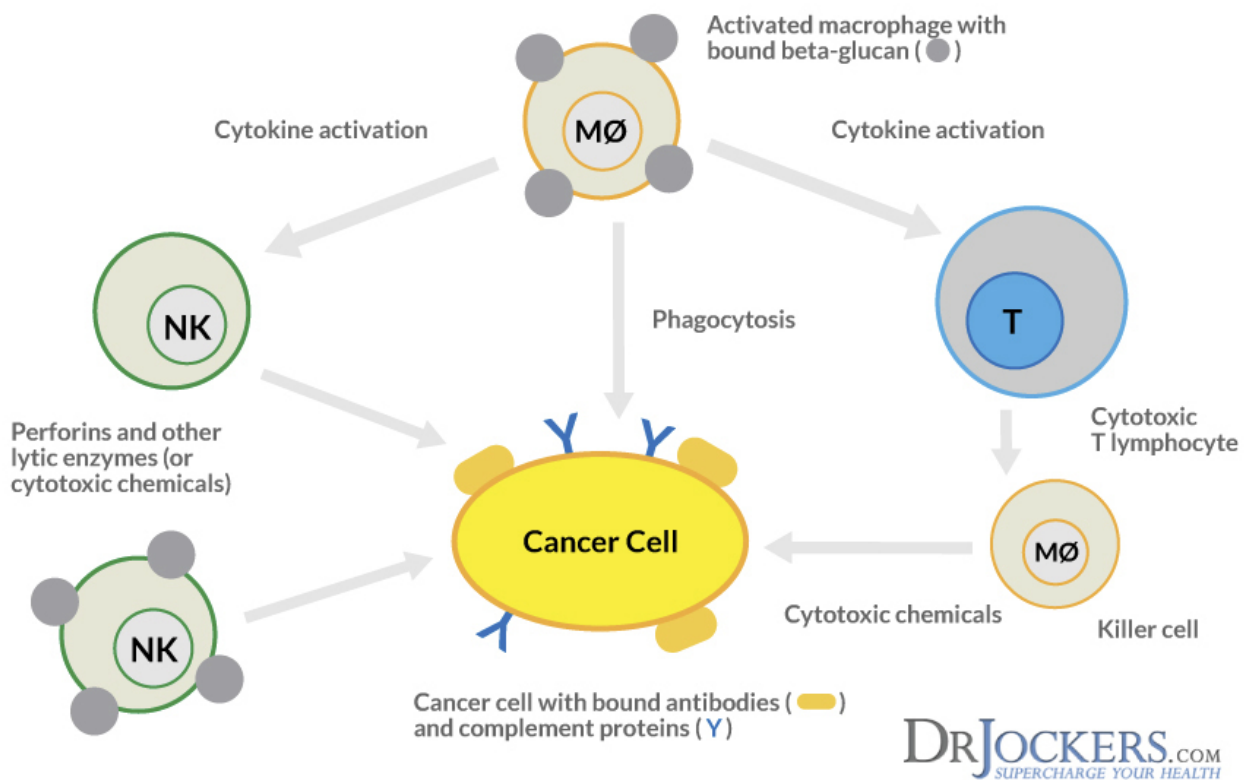
Beta Glucan and Cancer:

Even a healthy immune system can get easily overwhelmed with fast growing cancer cells. Beta glucan acts to bind to the surface of the antibodies, macrophages and NK cells in order to activate them and coordinate their attack. This provides a significantly stronger and more efficient immune response.

Beta glucan also helps the anti-body antigen response by priming the immune cells to recognize complement –antibody complexes in order to kill the tumor cells. The cooperation of antibodies with beta glucan is more potent than radiation or chemotherapy. This also acts without the delirious side-effects that these traditional treatments have.

This compound activates certain immune cells such as key T-cells, macrophages, natural killer (NK) cells and the cytokines interleukin (IL) 1 and 2. Studies have shown that it inhibits the growth of cancer and strengthens the immune response to microbial invaders. (1)

NK cells are a critical player in keeping tumor growth under control as that is there primary life focus. These cells are designed to search the body, target and eliminate cancerous growths all day long.



Immune Stem Cells:

Beta glucan also helps stimulate the production of immune stem cells within the bone marrow. This leads to the release of new immunocytes into the bloodstream and various lymphoid organs.

This increases the immune surveillance against potential invaders and improves the attack against cancer cells. This is even more important when the individual is also receiving chemotherapy and/or radiation. These conventional therapies lower circulating immune complexes and decrease immunocyte numbers making the body more susceptible to infection.

Beta glucan also stimulates various cells in the body to release anti-cancerous molecules throughout the body. These include tumor necrosis factor, interleukins 1 & 6, hydrogen peroxide and gamma interferon which are all proven effective in the fight against cancer and invading microorganisms. (2)

The Five Key Immune Responses Targeted By Beta Glucan

- 01 Production of White Blood Cells
- 02 Cellular mobilization
- 03 Phagocytic capacity
- 04 Production of reactive oxygen intermediates
- 05 Help shift from an overstimulated TH2 to a TH1 cell mediated immune response

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Beta Glucan Helps Fight Infection:

Beta glucans have been studied for their ability to mitigate cancer cell growth and reduce the symptoms of the common cold. In one report by the Montana Center for Work Physiology and Exercise Metabolism they studied firefighters and tracked their cold/flu symptoms. Firefighters have

very physically and emotionally stressful positions that demand a lot out of them.

The results of the study showed that those who took beta glucan instead of the placebo had a 23% reduction in upper respiratory tract infections. (3) “These results are consistent with previous clinical research involving marathoners, individuals with high stress lifestyles and the general population,” wrote Brent C. Rudy, the director of the Montana Center for Work Physiology and Exercise Metabolism.



Key Benefits of ImmunoCharge

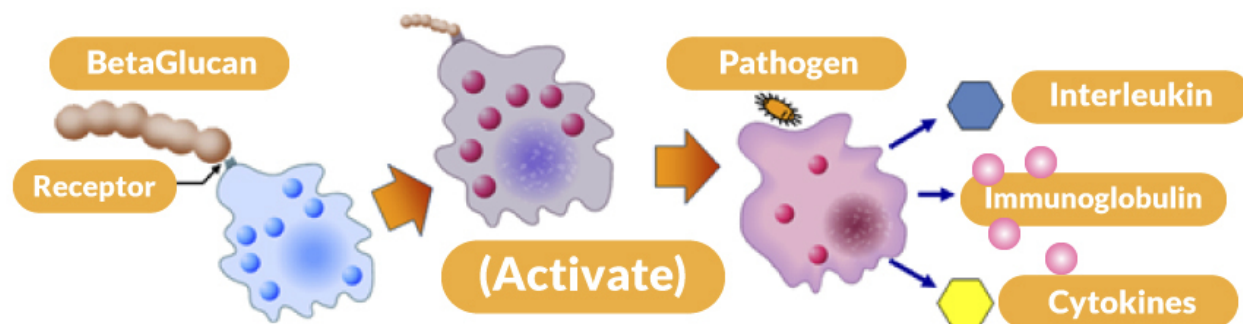
- ✓ Antioxidant Support
- ✓ Supports Healthy Immune Function
- ✓ Potent Anti-Viral Potential
- ✓ Supports the Body's Defenses Against Seasonal Immune Challenges

Beta Glucan Beats Traditional Therapies:

Beta glucans ability to stimulate immunoactive molecules and improve the immune-modulation within the body is quite remarkable. Priming and coordinating the immune system is one of the most important factors in preventing infection and the development of chronic inflammatory diseases.

There are over a thousand published scientific studies describing the various biological effects of beta glucan.(4) The cancerostatic and immunostimulating properties that beta glucan brings to the table make it one of the safest and most potent substances available. It is very low-cost compared to various medical interventions and much safer which make it an attractive addition to a natural cancer prevention or cancer healing program.

How Does Beta Glucan Work?



Macrophage activation via cell surface receptor

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How Is Beta Glucan Harvested?

Beta glucans are naturally occurring polysaccharide molecules that are extracted from the cell walls of yeast. Insoluble (1,3/1,6) B-glucans are found in brewers yeast or *saccharomyces boulardii* and medicinal mushrooms such as maitake, reishi and agaricus blazei murrill mushrooms. Oats and barley contain soluble (1,3/1,4) B-glucans in their undigestible soluble fiber. This fiber has an anti-inflammatory effect on the body.

Research has demonstrated that insoluble (1,3/1,6) B glucans have greater biological activity and immune modulating effects than the soluble form.(5) Many individuals will benefit from consuming these through fermented foods and medicinal mushrooms.

It is also recommended to supplement with this insoluble B glucan in order to enhance your immune system function. The specific supplemental versions of beta glucans are isolates that have removed all the potentially harmful proteins for those who are sensitive or allergic to yeast.



The Best Beta Glucan Supplement:

Not all glucans are created equal, not all sources are equal. Glucans widely differ in physiochemical and biological properties. Some glucans have no biological activity at all. This is why it is so important you know which one is the best.

After reviewing the literature, I have found that Transfer Point's active ingredient, Glucan 300, is the most effective dietary supplement for a healthy immune system on the market.

Every single batch of TP ingredients is tested twice: when it's first made, and then again when it is ready to be encapsulated or mixed in a formula. This ensures that the ingredient has not degraded, and that it has retained complete purity and full potency.

All the assays are conducted by independent 3rd parties. Few other supplement manufacturers can say the same. In fact, many supplement manufacturers don't even bother to test regularly. Some of them use certificates of authenticity that are years old, which means the current lot has not been tested.

Transfer Point has every single lot receive its own certificate of analysis and they put that information right on the bottle. I value the extra energy they put forth into guaranteeing their product is pure and effective and I know I can trust it to get my clients the results they need! You can get this supplement for the lowest rate through my friends at BetterWay Health.

I recommend 500mg daily for good immune support, 1000 mg for high level immune support and 1000 mg – 2x daily for advanced disease cases. Always take Beta Glucan away from food to maximize absorption. I typically recommend 30 mins – 1 hour before a meal.



Sources For This Article Include:

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— *Dr. David Jockers*

