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Access to hidden cures... powerful discoveries... breakthrough treatments...  
and urgent advances in modern, underground medicine

## Glucasan Can Help In The Fight Against Swine Flu

According to the World Health Organisation (WHO), we are on the verge of an 'unstoppable' swine flu pandemic. Plans are in place for a nationwide vaccination campaign, but sufficient doses of a suitable vaccine may not be ready until November. An estimated 100,000 new cases a day are expected in the UK by the end of the summer. Whether or not swine flu fulfils this grim expectation, it makes sense to do what you can to ensure that your immune system is strong enough to fight off influenza viruses and any other infection you may be exposed to. That's where a new product called Glucasan could help. Glucasan contains natural compounds called beta-glucans, which put the immune system on full alert and in a state of readiness, by harmlessly mimicking potential threats. According to Dr Paul Clayton, a Fellow of the Royal Society of Medicine and a former Senior Scientific Advisor to the UK government's Committee on the Safety of Medicines, 'beta-glucans are increasingly becoming an essential part of the right modern diet and have far reaching benefits ranging from skin care to virus protection'.

### Beta-glucans activate the immune system's front line troops

Our immune system is our first line of defence. Micro-organisms are in the air we breathe and the food we eat, so our epithelial surfaces (skin, respiratory tract, gastro intestinal and urinogenital tracts) are continuously exposed to them. Disease only occurs when micro-organisms break through these epithelial surfaces and penetrate deeper into the body. The immune system has the potential to be so effective that, despite our constant exposure to bacteria and viruses, clinical infections are the exception rather than the rule. In today's over-sanitised environment, however, our immune systems are not kept active. This makes them less effective and less able to neutralise new and unexpected threats. This is why, when we travel to parts of the world where sanitation standards are less rigorous, we routinely fall victim to 'holiday tummy' and other pathogens that the locals have no problems with. Poor diet, chronic stress and prescription drugs (such as antibiotics) can all reduce the effectiveness of our immune system.

The resistance of our epithelial surfaces to invasion is called innate (natural) immunity. It prevents the entry of micro-organisms into tissues or, once they have gained entry, eliminates them before they can cause disease. The majority of innate immune tissue lies alongside the digestive tract and is known as gut-associated lymphoid tissue (GALT). Taking beta-glucan supplements supports the GALT and this in turn 'wakes up' all the rest of the innate immune system, including immune cells in the liver, kidneys and brain.<sup>1</sup>

Immune cells called macrophages, which engulf and destroy invading pathogens, play a pivotal role in initiating and maintaining the immune response. In order to function immunologically, macrophages must go through a state of activation involving the production of a series of chemicals called cytokines. These act as internal regulators of the immune system. Of all the natural compounds known to initiate macrophage activation, the best documented and most effective are the 1-3, 1-6 beta-glucans, generally derived from brewer's yeast. These molecules activate the innate immune system very strongly indeed<sup>2</sup>. Macrophages have receptors that specifically recognise beta-glucans, because they occur in the cell walls of many bacteria and fungi.<sup>3</sup> This means that when you ingest beta-glucans your innate immune system thinks that an enemy is at the gate and it rises to the challenge.

As well as activating macrophages, beta-glucans also bind to receptors on neutrophils, the most abundant type of innate immune cell in the body, according to a US study carried out at Rhode Island Hospital and Brown University.<sup>4</sup> This appears to not only enhance their capacity to kill pathogens, but also their ability to detect proteins produced by invading bacteria and to locate them within infected tissues. This more rapid

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response to infection results in faster microbial elimination and healing.

### How Glucasan could help you shrug off any infection and even foil cancer

Several well-conducted research studies have shown that beta-glucans could greatly enhance our resistance to infection. This has been demonstrated by their ability to reduce the rate of postoperative infections that frequently complicate high-risk surgical procedures. In three separate multicentre, double-blind clinical trials, researchers evaluated the effects of beta-glucans on patients undergoing high-risk abdominal and thoracic surgery. Patients who received beta-glucan supplements had significantly fewer postoperative infections than those given a placebo.<sup>5,7</sup>

Beta-glucans also appear to be able to help us fight cancer, according to the results of new research from Japan. In one study, patients with a type of untreatable liver cancer called hepatocellular carcinoma had significantly longer survival times when given a diet supplemented with beta-glucans.<sup>8</sup> A parallel study also found increased survival rates and improvements in quality of life when patients suffering from advanced pancreatic cancer were given beta-glucans.<sup>9</sup>

Animal trials have found that beta-glucans can offset the immune system suppression and consequent increased risk of upper respiratory tract infection that normally follows prolonged, stressful exercise.<sup>10</sup> This protective effect was shown to be due to an increase in the activity of macrophages.

In a 2004 study that could not have foreseen the current swine flu pandemic, South Korean researchers investigated the antiviral effects of beta-glucans against swine flu in pigs.<sup>11</sup> Piglets were dosed with beta-glucans or with inactive culture medium for three days, before being exposed to the virus. Those receiving beta-glucans had significantly fewer lung lesions and a lower rate of viral replication. They also had higher levels of interferon-gamma and nitric oxide, showing increased immune system activity.

Glucasan has been developed in Germany in conjunction with the Institute of Biotechnology at the Technical University of Berlin and is manufactured to the highest clinical standards. According to the manufacturer, it has been shown in independent tests to perform better than all other beta-glucan supplements currently available. Glucasan could prove to be invaluable for enhancing your immune response and protecting you from infection, at a time when concern about swine flu is growing.

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### What to take for best results

The recommended dose of Glucasan, which is marketed by Vitalize Health Products Ltd, is one capsule per day, increased to two per day (morning and evening) when additional support is required.

...CUTTING-EDGE HEALTH UPDATE

## Watch Varicose Veins Disappear

We are all hoping for a glorious, sunny end to the summer, but will you be roasting the August days away in long trousers, too embarrassed to reveal your legs because of varicose veins? If so, you are sure to be interested in a new supplement derived from oranges that could make those bulging veins, along with leg ulcers, haemorrhoids and spider veins, a thing of the past.

With varicose veins, you might be able to manage the discomfort short-term by elevating your legs and wearing compression stockings. But those steps aren't going to get rid of the problem. Sooner or later, you could be facing the daunting prospect of surgery. That's why you need to know about Diosmin HMC, from Thorne Research.

Diosmin comes from a flavonoid found in the pulp and peel of citrus fruits. It works by strengthening the layer of cells lining your blood vessels. Diosmin has been used for over 30 years as an anti-inflammatory and vascular-protecting agent. In fact, it's one of the most frequently recommended herbal preparations for circulatory health in Eastern Europe and it is now available in the UK.

Basically, diosmin fights a condition known as chronic venous insufficiency (CVI), which leads to a variety of symptoms. These include heavy, swollen legs, easy bruising, restless legs, varicose veins, haemorrhoids and cold hands and feet. Often, CVI occurs as a result of prolonged standing. So, if you've spent years in a job that keeps you on your feet all day, those symptoms could well sound familiar.

Normally, the muscles of your legs keep blood flowing when you walk. But when you have to stand for hours on end, your muscles aren't working to squeeze the walls of the veins. As a result, the vein walls can become distended and the valves within them leak. This gives rise to varicose veins as the vein walls 'balloon' into the surrounding tissues. In severe cases, CVI and resulting leg swelling can cause ulcers

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