

Probiotics and Hay Fever

If you are one of the more than 35.9 million hay fever (allergic rhinitis) sufferers in the United States, you know that the runny nose, sneezing, congestion and sinus pressure do not end with winter (1). These symptoms may be just beginning in the spring and summer months. Fortunately, a variety of natural products help deal with allergic reactions to a variety of airborne substances. In addition to the great seasonal allergy remedies available, a new pilot study might have you reaching for one of your favorite winter products; probiotics.

During a hay fever attack, the immune system reacts upon exposure to certain airborne substances that it thinks are harmful. Pollens, fungal spores, dust mites and dander are all common culprits. In the body's initial exposure to these substances, the immune system produces specific antibodies to fight them. In subsequent exposures, these antibodies will recognize the substances and signal immune cells to release histamine and other chemicals that help deal with the symptoms associated with hay fever.

For the first time ever, scientists from the Institute of Food Research reported that a specific strain of probiotic may help reduce hay fever symptoms in humans (2). In a double-blind, placebo-controlled study, 10 hay fever sufferers were given a milk drink with added *Lactobacillus casei* (*L. casei*); while 10 others were given a milk drink without the added probiotic as a placebo for a five-month period. The researchers collected blood samples before, at the peak, and at the end of grass pollen season to determine levels of the plasma antibodies and cytokines specific to grass pollens. Levels of both were significantly decreased for the group that took the probiotic milk drink compared to those who did not. These results suggest that supplementation of *L. casei* and possibly other probiotic strains may reduce the symptoms of hay fever.

Because the effects of probiotics on hay fever constitutes a new area of research, it may work best to consume a broad range of probiotics for the time-being. These microorganisms perform essential functions in the body like crowding out unfriendly microorganisms, altering pH in the colon, neutralizing free radicals, and helping with a variety of gastrointestinal issues. It is important to select probiotics that are manufactured in capsules with a special coating that ensures the bacteria will survive the rigors of digestion and be able to colonize.

In addition to probiotics, supplements commonly recommended for hay fever and seasonal allergies include combinations of stinging nettle, quercetin, bromelain and immature orange peel. These ingredients act by providing antioxidant strength to maintain stable mast cells and support the body's efforts to maintain normal mucous membranes and keep nasal passages clear. Another valuable combination to provide immune system support during seasonal changes includes andrographis with other immune-supporting herbs such as bitter orange fruit, thyme, oregano and eleuthero root.

Works Cited

1. Natahn, R.A., Meltzer, E.O., Selner, J.C., Storms, W. "Prevalence of Allergic Rhinitis in the United States." *Journal of Allergy and Clinical Immunology* (1997) 99:S808-14.

2. Ivory K, Chambers SJ, Pin C, Prieto E, Arqués JL, Nicoletti C. "Oral delivery of *Lactobacillus casei* Shirota modifies allergen-induced immune responses in allergic rhinitis." *Clin Exp Allergy*. 2008 May 28. [Epub ahead of print]