

SEASONAL ALLERGIES: CAN WE REDUCE THEIR EFFECTS?

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Abstract: *Seasonal allergies often run in families. It is an allergic response causes itchy, watery eyes, sneezing etc. symptoms. In general babies under 2 years do not get this disease. It is caused by the overreaction of immune system to pollen and other outdoor allergens. It is specific to certain persons for particular season. It is best managed by certain precautions and supplements one can take before the season starts.*

Keywords : Allergy, Immune réponses

INTRODUCTION

Seasonal allergies usually happen during certain times of the year, depending on the type of pollen that's in the air. Seasonal allergies can start at almost any age, but they usually don't develop before a child is 2 years old. Most people with seasonal allergies develop them by age 20. Allergy is an immune response to a harmless substance, where the body creates antibodies as a triggering response. Common triggers include dust, food, and pet dander. When the host immune system overreacts to pollen and other outdoor allergens seasonal allergies set in. In spring, pollen from trees, grasses, and flowers can aggravate symptoms of allergic rhinitis, or hay fever. It is characterised by Itchy, watery eyes, stuffy or runny nose, sneezing, coughing, and itchy throat.

While conventional allergies can often be managed with medication and environmental changes, chronic allergies may require medical attention. Antihistamines provide quick relief for symptoms such as congestion, sneezing, a runny nose, and itchy eyes [1].

Causes: When an airborne substance - allergens - that's usually harmless responds, by releasing histamines and other chemicals into the bloodstream. Those chemicals produce the symptoms of an allergic reaction. These allergens differ from season to season [2].

Spring: Trees are responsible for most springtime seasonal allergies. Birch is one of the most common offenders in northern latitudes, where many people with hay fever react to its pollen. Other allergenic trees in North America include cedar, alder, horse chestnut, willow and poplar.

Summer: Hay fever gets its name from hay-cutting season, which is traditionally in the summer months. But the real culprits of summertime seasonal allergies are grasses, such as ryegrass and timothy grass, as well as certain weeds. According to the Asthma and Allergy Foundation of America, grasses are the most common trigger for people with hay fever.

Fall: Autumn is ragweed season. The genus name

for ragweed is *Ambrosia*, and it includes more than 40 species worldwide. Most of them grow in temperate regions of North and South America. They're invasive plants that are difficult to control. Their pollen is a very common allergen, and the symptoms of ragweed allergy can be especially severe. Other plants that drop their pollen in the fall include nettles, mugworts, sorrels, fat hens, and plantains.

Winter: By winter, most outdoor allergens lie dormant. As a result, cold weather brings relief to many people with hay fever. But it also means that more folks are spending time indoors. If you're prone to seasonal allergies, you may also react to indoor allergens, such as mold, pet dander, dust mites, or cockroaches.

Indoor allergens: Indoor allergens are often easier to remove from your environment than outdoor pollens [3]. Here are a few tips for ridding your home of common allergens:

- * Wash your bedding in very hot water at least once a week.
- * Cover your bedding and pillows with allergen-proof covers.
- * Get rid of carpets and upholstered furniture.
- * Remove stuffed toys from your children's bedrooms.
- * Fix water leaks and clean up water damage that can help mold and pests flourish.
- * Clean moldy surfaces and any places that mold may form, including humidifiers, swamp coolers, air conditioners, and refrigerators.
- * Use a dehumidifier to reduce excess moisture.

Supplements: Many supplements have been advertised for treating seasonal allergies [4], but not all of them are helpful or worth a try. There's some evidence that supplements like quercetin, zinc, and stinging nettle can improve symptoms of seasonal allergies like runny nose and congestion [5].

Following the list of supplements that can help in reducing the miseries of seasonal allergies:

1. Quercetin: Quercetin is a flavonoid found in fruits, vegetables, flowers, and plants, is a powerful antioxidant that gives them their vibrant colors. According to Mount Sinai's health library, quercetin supplements may help prevent heart disease, certain malignancies, inflammation, and cellular damage (6). The American Academy of Allergy, Asthma, and Immunology (AAAAI) states that preliminary studies in vitro indicate quercetin supplements may help combat allergies by stabilizing mast cells, thus reducing histamine production.

2. Vitamin C: Although vitamin C is typically sought after during the onset of a cold, it can also help relieve the symptoms of seasonal allergies such as sniffles and runny noses. Vitamin C is well-known for its ability to enhance the immune system and reduce inflammation (7) It can boost the immune system and potentially lower the severity of allergy symptoms. According to health professionals, including this supplement in your regimen can reduce swelling, itching sensations, a runny nose, excess mucus, and teary eyes caused by allergies. Best Public Speaking Course for Children (Age 4-14)

3. Probiotics: Hay fever occurs when the nasal airways become inflamed in reaction to an allergen, causing a range of unpleasant symptoms such as sneezing, congestion, watering eyes, and an itchy nose. However, recent research has suggested that taking a daily probiotic can help modify immune and inflammatory responses, potentially providing relief from these symptoms. "The clinical benefit of probiotic therapy depends on numerous factors, such as type of bacterium, route of administration, dosing, regimen, and other underlying host factors," a 2013 study published in the North American Journal of Medical Sciences observes(8).

4. Omega-3 fatty acids: Omega-3 fatty acids are considered "healthy fats" and may benefit your heart health. They can also assist you in overcoming allergies because of their anti-inflammatory properties. Furthermore, these supplements help the body adjust its immune response during illness (9 A study published in the journal Allergology

International in 2015 found that omega-3 fatty acids, docosahexaenoic acid (DHA), and eicosapentaenoic acid (EPA) protect against inflammatory diseases such as asthma and allergies. The study's authors suggest "a causal relationship between decreased intake of fish oil in modernized diets and an increasing number of individuals with asthma or other allergic diseases."

5. Magnesium: There is evidence that magnesium may ease breathing by relieving constricted airways in the lungs. The results of a study showed that animals who were severely deficient in magnesium had higher levels of histamine in their blood when exposed to allergens than animals who received adequate amounts of magnesium [10]. It's recommended that any one don't exceed more than 350 mg of magnesium combined in your multi and additional supplements if you are planning on adding magnesium to your diet.

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