

Spring Allergies Alleviation



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How do Seasonal Allergies affect us?

- Allergic rhinitis is an immunoglobulin (Ig)E-mediated response against inhaled allergens that cause inflammation.
- The initial response occurs within five to 15 minutes of exposure to an antigen, resulting in the degranulation of host mast cells.
- This releases a variety of preformed and newly synthesized mediators, including histamine, which is one of the primary mediators of allergic rhinitis.

Akhouri S, House SA. Allergic Rhinitis. [Updated 2023 Jul 16]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK538186/

How do Seasonal Allergies affect us?

- Histamine induces sneezing and also plays a role in rhinorrhea (runny nose) by stimulating mucous glands. *(Get it out! Get it out! Get it out!)*
- Other immune mediators, such as leukotrienes and prostaglandins, are also implicated as they act on blood vessels to cause nasal congestion.
- Four to six hours after the initial response, an influx of cytokines occurs. These cytokines, in turn, facilitate the infiltration of eosinophils (disease-fighting white blood cells), T-lymphocytes, and basophils into the nasal mucosa and produce nasal edema with resultant congestion. *(Okay! Lock it down!!!)*

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What can Essential Oils do to help?

- Decrease the need for Histamine production
- Relax mucus membranes and blood vessels
- Penetrate cell membranes or bind to receptors of viruses or antigens
- Directly communicate with our brain's Hypothalamic control center

What causes Spring Allergies in most people in New Jersey?

Tree Pollen!!!

- Tree pollen is the cause of most spring pollen allergy symptoms.
- Throughout the U.S., trees produce the most pollen from March through May.
- Some trees produce pollen you can see (such as pine trees that release a fine, yellow dust that covers outdoor surfaces...like your car hood and windshield!).
- Some trees produce pollen that is very small and cannot be seen.

What causes Spring Allergies in most people in New Jersey?

- In the temperate climate zone of the world, pollen from trees of the order Fagales (e.g. birch, alder, hazel, oak, and hornbeam) are a major cause of Type I allergies (Ipsen *et al.*, 1985; Jarolim *et al.*, 1989a).
- Birch pollen contains a single major allergen with a molecular mass of 17 kDa (Ipsen and Loewenstein, 1983), designated Bet v 1. (1)
- More than 96% of all tree pollen allergic patients display IgE antibodies to Bet v 1, and 60% react exclusively to this allergen, indicating the importance of this protein in tree pollen allergy (Jarolim *et al.*, 1989a).

Some of the trees that cause the most allergy symptoms are:

- Alder
- Ash
- Aspen
- Beech
- Birch
- Box elder
- Cedar

- Cottonwood
- Elm
- Hickory
- Juniper
- Maple
- Mulberry

- Oak
- Olive
- Pecan
- Poplar
- Walnut
- Willow

What causes Spring Allergies in most people in New Jersey?

Grass Pollen

- Grass pollen is a major cause of spring/summer pollen allergy symptoms.
- Throughout the U.S., grasses produce the most pollen from April through June.
- There are hundreds of grass pollens, but only a select group cause allergy symptoms.

Some grasses that cause the most allergy symptoms are:

- Bahia
- Bermuda very allergenic
- Fescue very allergenic
- Johnson
- Kentucky blue

- Orchard very allergenic
- Rye very allergenic
- Sweet vernal very allergenic
- Timothy very allergenic

How do we combat the symptoms of Spring Allergies?

- Track the pollen count for your area
- Stay indoors in central air conditioning when the pollen count is high. Get a CERTIFIED asthma & allergy friendly® air filter for your air conditioner. If you do spend time outside, try to go out on days when the pollen count is lower.
- Prevent pollen from being tracked into your home:
 - Take your shoes off before coming into the house
 - Don't wear your "outside" clothes to bed or when sitting on couch/furniture
 - Cover your hair when outside or wash it at night
 - Wipe off pets before they enter your home
 - Shower after coming inside the home after being outdoors for a significant period of time

How do we combat the symptoms of Spring Allergies?

Why may certain foods need to be avoided during Spring allergy season?

- Profilins are ubiquitous proteins, present in all eukaryotic cells and identified as allergens in pollen, latex and plant foods.
- Plant profilins are designated as pan-allergens.
- Primary sensitization to profilin seems to arise from pollen sensitization.

Source: Santos A, Van Ree R. Profilins: mimickers of allergy or relevant allergens? Int Arch Allergy Immunol. 2011;155(3):191-204. doi: 10.1159/000321178. Epub 2011 Feb 2. PMID: 21293140.

How do we combat the symptoms of Spring Allergies?

Oral Allergy Syndrome (OAS) or Pollen Food Allergy Syndrome (PFAS)

- Occurs because some tree pollen is similar to the protein in some fruits, vegetables, & nuts.
- Your immune system gets confused & can't tell the difference between the two.
- Eating these foods may cause your mouth, lips, tongue, & throat to itch or swell.
- Avoid certain foods that could trigger an allergic reaction or exacerbate the effects of pollen on your respiratory system.

Oral Allergy Syndrome (OAS) or Pollen Food Allergy Syndrome (PFAS)

Birch tree pollen can cross-react with:

Almond	Fennel
Anise or aniseed	Hazelnut
Apple	Kiwi
Apricot	Parsley
Caraway	Peach
Carrot	Peanut
Celery	Pear
Cherry	Plum
Coriander	Soybean

Alder tree pollen can cross-react with:

Almond Apple Celery Cherry Hazelnut Peach Pear Parsley

Oral Allergy Syndrome (OAS) or Pollen Food Allergy Syndrome (PFAS)

Grass pollens can cross-react with:

- Cantaloupe
- Honeydew
- Orange
- Tomato
- Watermelon
- White potato

How do we combat the symptoms of Spring Allergies?

- 1. Use a personalized, essential oil, Spring allergy inhaler personally crafted with guidance from Soul Biome!!!
- 2. Avoid certain foods that could trigger Tree Pollen allergy responses.
- 3. Stay hydrated.
- 4. Avoid specific EO aromas: Anise, Fennel, Coriander, Celery, Carrot

Noted Resources

- Rhind, Jennifer Peace. <u>Aromatherapeutic Blending: Essential Oils in Synergy</u>. Singing Dragon, Philadelphia; 2016.
- Santos A, Van Ree R. <u>Profilins: mimickers of allergy or relevant allergens?</u> Int Arch Allergy Immunol. 2011;155(3):191-204. Doi: 10.1159/000321178. Epub 2011 Feb 2. PMID: 21293140.
- Schnaubelt, Ph.D., Kurt. <u>The Healing Intelligence of Essential Oils</u>: The Science of Advanced Aromatherapy. Healing Arts Press, Vermont; 2011.

Schnaubelt, Ph.D., Kurt. Advanced Aromatherapy. Healing Arts Press, Vermont; 1998.

- Shutes, Jade and Amy Galper. <u>The Ultimate Guide to Aromatherapy</u>. Quarto Publishing Group, Beverly, MA; 2020.
- Worwood, Valerie Ann. <u>The Complete Book of Essential Oils and Aromatherapy</u>. New World Library, California; 2016.

Noted Resources (cont.)

Ines Swoboda, Alexander Jilek, Fátima Ferreira, Edwin Engel, Karin Hoffmann-Sommergruber, Otto Scheiner, Dietrich Kraft, Heimo Breiteneder, Ernst Pittenauer, Erich Schmid, Oscar Vicente, Erwin Heberle-Bors, Horst Ahorn, Michael Breitenbach. <u>Isoforms</u> of Bet v 1, the Major Birch Pollen Allergen, Analyzed by Liquid Chromatography, Mass <u>Spectrometry, and cDNA Cloning</u> (*), Journal of Biological Chemistry, Volume 270, Issue 6, 1995, Pages 2607-2613, ISSN 0021-9258, https://doi.org/10.1074/jbc.270.6.2607. (https://www.sciencedirect.com/science/article/pii/S0021925817307068)

Mojay, Gabriel. <u>Aromatherapy for Healing the Spirit</u>: A guide to restoring emotional and mental balance through essential oils. Henry Holt and Company, Inc., New York; 1996.

<u>The Essential Life</u>, 6th Edition: A Simple Guide to Living the Wellness Lifestyle. Total Wellness Publishing; 2019.



Thank you for allowing me to be a part of your wellness journey!





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