2025 Allergy Capitals

The Most Challenging Places to Live with Allergies

Asthma and Allergy Foundation of America

1400 Crystal Drive • Suite 660 • Arlington, VA 22202
800-7-ASTHMA (800-727-8462) • aafa.org

2025 Allergy Capitals™

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Media Inquiries
For media and related inquiries, contact **media@aafa.org**. For patient questions, contact **info@aafa.org**.

About the Asthma and Allergy Foundation of America (AAFA)
Founded in 1953, AAFA is the oldest and largest nonprofit patient organization dedicated to saving lives and reducing the burden of disease for people with asthma, allergies, and related conditions through research, education, advocacy, and support. AAFA offers extensive support for individuals and families affected by asthma and allergic diseases, such as food allergies and atopic dermatitis (eczema). Through its online patient support communities, network of regional chapters, and collaborations with community-based groups, AAFA empowers patients and their families by providing practical, evidence-based information and community programs and services. AAFA is the only asthma and allergy patient advocacy group that is certified to meet the standards of excellence set by the National Health Council. AAFA also helps consumers identify products to help them have healthier indoor environments through the **Asthma & Allergy Friendly®** Certification Program. For more information, visit **aafa.org**.

About This Report
The 2025 Allergy Capitals research and ranking is reported by the Asthma and Allergy Foundation of America. The ranking is based on analysis of data from the 100 most-populated Metropolitan Statistical Areas (MSAs) in the contiguous 48 states as determined by the most recent U.S. Census Bureau population estimates (2023). The individual factors analyzed for the 2025 rankings are pollen scores for tree, grass, and weed pollen, over-the-counter medication use (allergy), and number of allergy specialists.

Acknowledgements
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The views and opinions expressed in this report are those of the AAFA authors and do not necessarily reflect the policies or positions of other individuals, sponsors, organizations, or companies.

AAFA authors and contributors: Hannah Jaffee, Tanya Bumgardner, Melanie Carver, Sanaz Eftekhari, Nicole Gaghan, Kimberly Rafferty, Andy Spears

Pollen Sense contributors: Richard Lucas, PhD, Landon Bunderson, PhD

Pollen Allergies Are Worsening Nationwide, But Help Is Available

Spring is often associated with the rejuvenation of the earth – animals awaken, flowers bloom and warm weather starts to drive people outdoors. But for the over 100 million people in the United States with allergies and/or asthma, spring can also bring itchy and watery eyes, runny noses, relentless sneezing and coughing.

Due to climate change, growing seasons start earlier and last longer than they did just 30 years ago. Some parts of the United States now experience pollen (tree, grass, or weed) year-round. Warmer temperatures also trap heat in urban areas, increasing air pollution, and stimulating pollen production.

For people with seasonal allergies, climate change fuels a perfect storm of conditions that make allergy symptoms worse. If allergy symptoms are not controlled, it can lead to lower quality of life, and missed school and work days.

AAFA's 2025 Allergy Capitals report provides insight into the factors that influence seasonal allergies. The report uses data to rank the 100 most populous cities in the contiguous United States by how challenging these locations are for people with pollen allergies. The factors impacting the rankings include:

- **Tree, grass, and weed pollen scores**
- **Over-the-counter allergy medicine use**
- **Availability of board-certified allergists/immunologists**

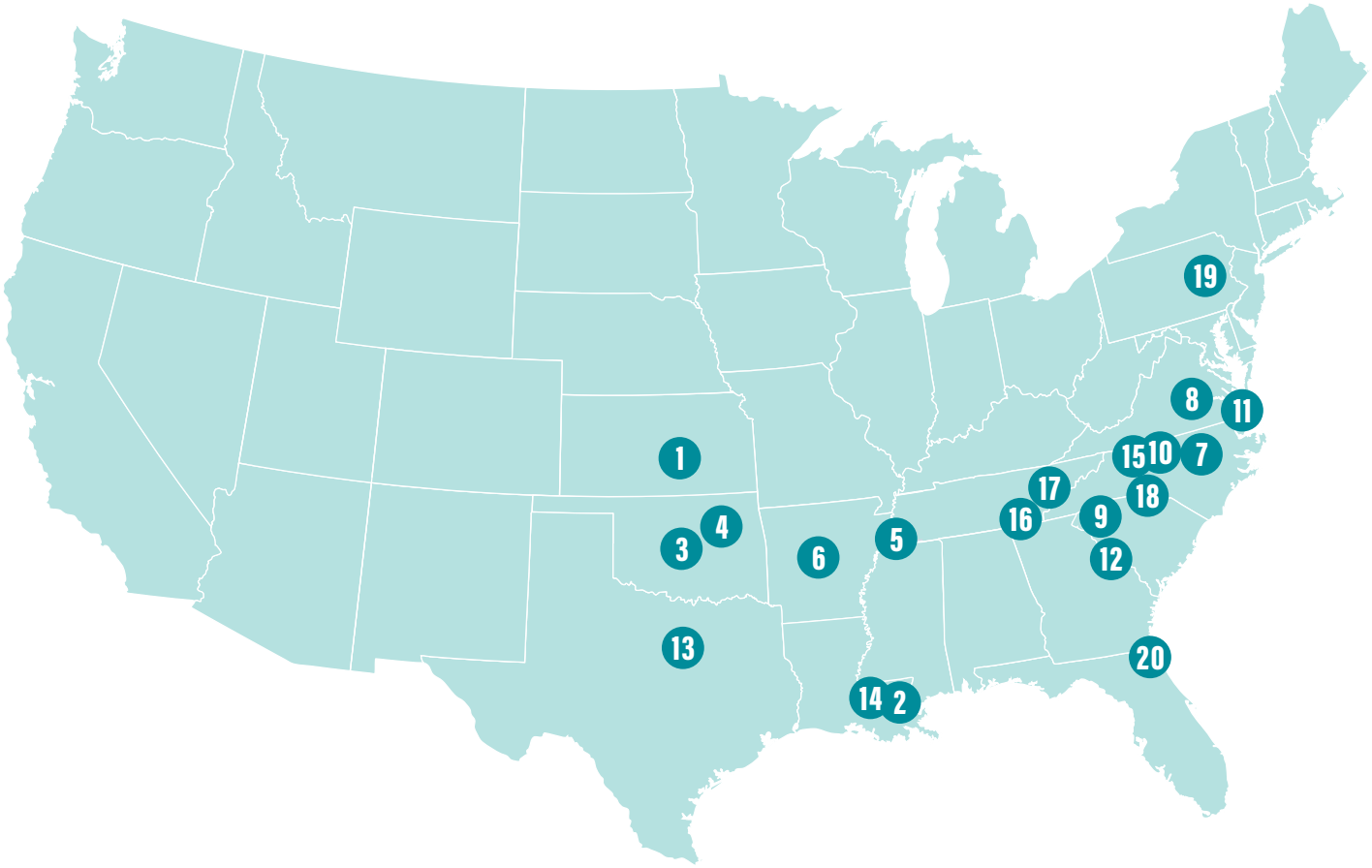
With this report, AAFA seeks to help people recognize, prevent, and manage seasonal allergies. You will find:

- Tips to help you manage and control your allergy symptoms – it can be done!
- The different types of allergy medicines
- Information about tree, grass, and weed pollen
- Explanations about how climate change affects pollen counts
- Data to help support community-based solutions for addressing the underlying issues making living with seasonal allergies challenging

AAFA is committed to ensuring people with asthma and allergies can access the care they need no matter where they live.

Inside This Report:

Map of the Top 20 Most Challenging Places to Live with Pollen Allergies in 2025



These are the top 20 Allergy Capitals based on pollen scores for tree, grass, and weed pollen, over-the-counter medication use (allergy), and number of allergy specialists. For the third year in a row, Wichita is the most challenging city for pollen allergies. The burden of seasonal allergies falls heavily on the southern and eastern parts of the country. The full list of the top 100 cities can be found on page 5 in this report.

1. Wichita, KS
2. New Orleans, LA
3. Oklahoma City, OK
4. Tulsa, OK
5. Memphis, TN
6. Little Rock, AR
7. Raleigh, NC
8. Richmond, VA
9. Greenville, SC
10. Greensboro, NC
11. Virginia Beach, VA
12. Augusta, GA
13. Dallas, TX
14. Baton Rouge, LA
15. Winston-Salem, NC
16. Chattanooga, TN
17. Knoxville, TN
18. Charlotte, NC
19. Scranton, PA
20. Jacksonville, FL

2025 Allergy Capitals™

Overall Rankings ■ **Worse Than Average** ▲ **Average** ● **Better Than Average**

(Factors are not weighted equally. Total scores are rounded for the purposes of this chart.)

2025 Overall Ranking	Overall	Metropolitan Area	Total Score *(Avg. 68.57)*	Subtotal: All Pollen	Subtotal: Medicine Use	Subtotal: Specialists
1	■	Wichita, KS	100.00	■	■	■
2	■	New Orleans, LA	86.81	■	■	●
3	■	Oklahoma City, OK	86.05	■	■	▲
4	■	Tulsa, OK	84.16	■	■	▲
5	■	Memphis, TN	83.50	■	■	▲
6	■	Little Rock, AR	82.94	■	■	●
7	■	Raleigh, NC	82.87	■	■	■
8	■	Richmond, VA	82.80	■	■	●
9	■	Greenville, SC	82.74	■	■	▲
10	■	Greensboro, NC	82.08	■	■	▲
11	■	Virginia Beach, VA	80.39	■	■	▲
12	■	Augusta, GA	80.37	■	■	▲
13	■	Dallas, TX	80.19	■	■	▲
14	■	Baton Rouge, LA	79.57	■	▲	▲
15	■	Winston-Salem, NC	78.98	■	■	▲
16	■	Chattanooga, TN	77.76	▲	■	●
17	■	Knoxville, TN	77.59	▲	■	●
18	■	Charlotte, NC	76.98	■	■	▲
19	■	Scranton, PA	76.79	▲	▲	■
20	■	Jacksonville, FL	76.44	▲	■	▲
21	■	Bakersfield, CA	76.24	■	●	■
22	■	Sarasota, FL	76.17	■	■	▲
23	■	Sacramento, CA	76.07	■	●	▲
24	■	Stockton, CA	75.69	■	●	■
25	■	Tampa, FL	75.42	■	▲	▲
26	■	Houston, TX	75.39	■	▲	▲
27	■	McAllen, TX	75.31	■	●	■
28	■	Fresno, CA	75.19	■	●	▲
29	■	Nashville, TN	74.98	▲	■	●
30	■	Lakeland, FL	74.50	▲	▲	■
31	■	Palm Bay, FL	74.23	▲	■	■
32	■	Des Moines, IA	74.07	▲	▲	■
33	■	Oxnard, CA	74.03	■	●	▲
34	■	Orlando, FL	73.76	▲	■	▲
35	■	Durham, NC	73.65	■	▲	●
36	■	Fayetteville, AR	73.58	▲	■	▲
37	▲	San Antonio, TX	73.50	■	●	▲
38	▲	Las Vegas, NV	73.29	▲	▲	■

Overall Rankings ■ Worse Than Average ▲ Average ● Better Than Average

(Factors are not weighted equally. Total scores are rounded for the purposes of this chart.)

2025 Overall Ranking	Overall	Metropolitan Area	Total Score *(Avg. 68.57)*	Subtotal: All Pollen	Subtotal: Medicine Use	Subtotal: Specialists
39	▲	Birmingham, AL	73.29	▲	■	▲
40	▲	Atlanta, GA	73.19	▲	▲	▲
41	▲	San Jose, CA	73.15	■	●	●
42	▲	New Haven, CT	72.90	●	■	▲
43	▲	Cape Coral, FL	72.20	▲	▲	▲
44	▲	Columbia, SC	71.75	▲	■	▲
45	▲	Austin, TX	71.51	■	●	●
46	▲	Riverside, CA	71.11	■	●	■
47	▲	Daytona Beach, FL	70.82	▲	■	■
48	▲	Columbus, OH	70.59	■	▲	●
49	▲	Toledo, OH	69.67	●	■	■
50	▲	El Paso, TX	69.62	▲	▲	■
51	▲	Los Angeles, CA	68.95	■	●	▲
52	▲	Portland, OR	67.92	■	●	▲
53	▲	San Francisco, CA	67.02	■	●	●
54	▲	Kansas City, MO	66.99	●	■	▲
55	▲	Allentown, PA	66.87	▲	▲	▲
56	▲	Buffalo, NY	66.55	▲	▲	▲
57	▲	Harrisburg, PA	66.31	▲	■	●
58	▲	Charleston, SC	66.16	●	■	▲
59	▲	Tucson, AZ	65.94	▲	▲	▲
60	▲	Baltimore, MD	65.32	▲	▲	▲
61	▲	Omaha, NE	65.10	●	▲	●
62	▲	Jackson, MS	64.96	●	■	●
63	▲	Pittsburgh, PA	64.44	▲	▲	▲
64	▲	Syracuse, NY	64.14	▲	▲	▲
65	▲	Miami, FL	64.13	▲	▲	▲
66	▲	Poughkeepsie, NY	64.09	▲	▲	▲
67	▲	St. Louis, MO	63.93	●	■	●
68	▲	Seattle, WA	63.88	▲	●	▲
69	▲	Louisville, KY	63.59	●	■	●
70	●	Washington, DC	62.52	▲	▲	●
71	●	Phoenix, AZ	62.30	▲	▲	▲
72	●	Grand Rapids, MI	62.18	●	▲	▲
73	●	Worcester, MA	61.77	●	▲	■
74	●	Indianapolis, IN	61.53	●	▲	▲
75	●	Albany, NY	61.13	●	▲	▲
76	●	Hartford, CT	60.96	●	▲	▲
77	●	Philadelphia, PA	60.96	●	▲	●
78	●	Providence, RI	60.87	●	▲	▲

Overall Rankings ■ Worse Than Average ▲ Average ● Better Than Average

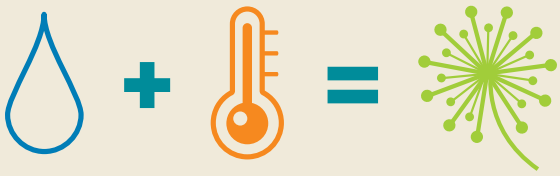
(Factors are not weighted equally. Total scores are rounded for the purposes of this chart.)

2025 Overall Ranking	Overall	Metropolitan Area	Total Score *(Avg. 68.57)*	Subtotal: All Pollen	Subtotal: Medicine Use	Subtotal: Specialists
79	●	Albuquerque, NM	60.46	●	■	▲
80	●	Chicago, IL	60.30	▲	●	●
81	●	Bridgeport, CT	59.77	●	▲	●
82	●	Spokane, WA	58.75	●	●	▲
83	●	Dayton, OH	58.16	●	▲	▲
84	●	Colorado Springs, CO	58.07	●	▲	▲
85	●	Rochester, NY	58.03	●	▲	●
86	●	Detroit, MI	57.93	●	▲	●
87	●	Milwaukee, WI	57.59	●	●	▲
88	●	Cincinnati, OH	57.49	●	▲	●
89	●	New York, NY	54.68	▲	●	●
90	●	Minneapolis, MN	54.59	●	●	▲
91	●	Denver, CO	54.16	●	▲	●
92	●	Ogden, UT	54.03	●	▲	▲
93	●	Madison, WI	53.89	●	●	●
94	●	Provo, UT	53.76	●	●	■
95	●	Boise, ID	52.92	●	▲	▲
96	●	Cleveland, OH	52.41	●	●	●
97	●	San Diego, CA	50.45	●	●	●
98	●	Akron, OH	50.37	●	●	▲
99	●	Salt Lake City, UT	49.86	●	●	▲
100	●	Boston, MA	45.29	●	▲	●

What Happened in New Orleans?

New Orleans ranked 34th on our Allergy Capitals ranking last year and jumped to 2nd this year. Why?

New Orleans experienced a much higher weed pollen season, possibly due to increased moisture from Hurricane Francine. Hurricane Francine made landfall in Louisiana on September 11, 2024. The timing aligned with the fall weed pollen season. Warmer temperatures than normal also extended the growing season. November 2024 was the warmest in Louisiana's record.



About Allergic Rhinitis

One of the most common allergic conditions is **seasonal allergic rhinitis**, sometimes called **"hay fever"** or **"nasal allergies."** About 1 out of 4 adults and 1 out of 5 children have seasonal allergic rhinitis.[1,2] It causes symptoms such as:

- Runny nose (also known as rhinorrhea – usually a thin, clear discharge)
- Stuffy nose (due to blockage or nasal congestion)
- Sneezing
- Red and watery eyes
- Itchy nose, eyes, ears, or mouth
- Swelling around the eyes

Symptoms of seasonal allergic rhinitis occur most often in spring, summer, and/or fall due to pollen allergy. But for some locations, seasonal allergies can affect people year-round.

About Allergic Asthma

Many people with asthma also have allergies. Allergies can trigger or worsen asthma. This is called **allergic asthma**. Allergic asthma is most common in early childhood and steadily decreases through adulthood. (Non-allergic asthma is more common in adults ages 40 and over.)

The common signs and symptoms of allergic asthma are the same as other types of asthma:

- Shortness of breath
- Cough
- Chest tightness or pain
- Wheeze (a whistling sound when you breathe)
- Waking at night due to asthma symptoms
- A drop in lung function

Asthma may lead to a medical emergency. During times of high pollen counts, more people have asthma emergencies.

Managing Your Pollen Allergies No Matter Where You Live

Allergies affect people everywhere. If you have seasonal pollen allergies, you can manage your allergy symptoms with self-care and an allergy treatment plan. There are many available and accessible options to help you find relief. Consider the tips and options below as you work with your doctor to create your allergy treatment plan.

STEP 1: Prevent Pollen From Getting Into Your Eyes, Nose, Mouth, and Lungs

During your pollen season, check pollen counts daily:

- Low pollen days: Plan outdoor activities.
- High pollen days: Stay inside. When you need to go outside, wear sunglasses, a hat or head covering, and a mask to limit the amount of pollen that gets into your eyes, nose, mouth, and lungs.
- Apps like Pollen Wise can help you track your daily pollen counts.

Take these steps to keep pollen out of your home:

- Remove your shoes before entering your home.
- Change and wash clothes after outdoor activities.
- Wipe furry animals off when they come inside or bathe them weekly.
- Shower before bed to keep pollen out of your bedding.
- Keep windows closed during pollen season or peak pollen times (usually midday).
- Use central air conditioning or air cleaners with a HEPA or **Asthma & Allergy Friendly®** Certified filter, if possible.
- Clean bedding, floors, and fabric furniture once a week.
- Clean blinds, curtains, and washable rugs once a month.

Asthma & Allergy Friendly®
aafa.org/certified

Visit **aafa.org/healthyhome** for a room-by-room checklist and **aafa.org/certified** to search for household products.

Nasal rinses help remove pollen from your nose and loosen mucus.

Rinse out your nose

A nasal rinse can help clear your sinuses and nose. This can help remove pollen and mucus. It may be best to do a rinse before you use a medicine nasal spray. To do a nasal rinse, you'll need a warm saline solution (salt water) and a special rinse bottle, bulb syringe, or neti pot. You can buy nasal saline drops, saline packets, or saline kits in most pharmacies. (Examples include Ayr®, NeilMed®). You can also follow the **recipe** below to make your own nasal saline rinse.

Once you have a saline solution, fill the bottle, bulb syringe, or neti pot with the saline solution. Stand with your head over a sink (or in the shower) and tilt your head to one side. Squeeze the solution gently into the top nostril. Breathe normally through your mouth. The solution should come out through your other nostril. Rotate your head and repeat the process on your other nostril. If needed, adjust your head position so the solution does not go down the back of your throat or into your ears. After using the rinse, blow your nose very gently to prevent the solution from going into your ear and causing discomfort.

Another option is to breathe hot steam through your nose for 10 to 15 minutes, three to four times a day. Do not use steam if it triggers your asthma or makes it hard to breathe.

Nasal rinse saline solution recipe

In a clean, small, airtight container, mix 3 teaspoons of iodide-free salt and 1 teaspoon of baking soda. Add 1 teaspoon of the mixture to 8 ounces (1 cup) of lukewarm distilled or boiled water.

You can store the leftover mixture in the airtight container. To use the rinse, you'll need a soft rubber ear bulb syringe, infant nasal bulb or a commercial nasal saline rinse bottle from the pharmacy.

Recipe from American Academy of Allergy, Asthma & Immunology

STEP 2: Use Allergy Medicines and Treatments to Control Your Symptoms

There are many over the counter (OTC) and prescription options to help you prevent or treat allergy symptoms. Start allergy medicines a couple weeks before your allergy season begins for the best results. Discuss your allergy treatment plan in detail with your doctor.

Corticosteroid nasal sprays reduce inflammation (swelling) in the nose and block allergic reactions. They are the most effective medicine type for allergic rhinitis because they can reduce all symptoms, including nasal congestion. They can also provide some relief for eye allergy symptoms. Nasal corticosteroids have few side effects (e.g., headache, nose bleeds or irritation).

Corticosteroid nasal sprays: FLONASE®, Nasacort®, Nasonex™, Nasalide/Flunisolide, Omnaris™, QNASL®, RHINOCORT®

Antihistamines relieve sneezing and itching in the nose and eyes. They also reduce a runny nose and, to a lesser extent, nasal stuffiness. Look for a long-acting, non-drowsy antihistamine. The newer medicines do not carry the risk of toxicity and death that has been associated with older antihistamines like diphenhydramine.

Non-steroidal antihistamine nasal sprays (may cause drowsiness): Astelin®, Astepro®, Patanase®
Non-drowsy oral antihistamines: Allegra®, CLARINEX®, Claritin®
Oral antihistamines that may cause drowsiness in some individuals: Xyzal®, ZYRTEC®

Cetirizine (ZYRTEC®) and loratadine (Claritin®) are the antihistamines of choice for use during pregnancy. They have established safety profiles and are effective in treating allergy symptoms during pregnancy.

Diphenhydramine and related short-acting antihistamines (like promethazine) should be avoided. Diphenhydramine (known under the brand name BENADRYL®) is not a good choice to take for allergy symptoms because of its short-term action to manage symptoms and several known negative side effects. The major side effects of diphenhydramine and older generation antihistamines include drowsiness, sedation, dry mouth/eyes, and fatigue. This can also impair alertness, concentration, multitasking, and memory. In turn, this antihistamine can affect important functions, such as learning and test performance in children, as well as operation of machinery and cars in adults. As these medicines can impair you, they can affect work performance and safety.

Non-drowsy, non-sedating antihistamines are a better choice! They can effectively relieve symptoms with much fewer side effects.

Signs and symptoms of eye allergies:

- Redness
- Itchiness
- Burning feeling
- Watery eyes
- Swollen eyelids
- Feeling like there is dirt or grit in your eyes
- Blurry vision (briefly)

Eye drops: Allergy eye drops can relieve eye burning, itchiness, redness, increased tearing, and swelling.

Antihistamine eye drops: Azelastine/Optivar, Bepreve®, Elestat®, LASTACAFT®, Opcon-A®, Systane® ZADITOR®, Patanol™, and Pataday®

Decongestants help shrink the lining of the nasal passages and relieve nasal stuffiness. They generally are only used for a short time (3 days). Read the instructions carefully and do not use them for extended amounts of time. Extended use of decongestant nasal sprays can cause a rebound effect that worsens your congestion. Make sure you talk with your doctor about the appropriate use of decongestants, limitations, and potential side effects.

Nasal spray decongestants: Afrin®, Vicks Sinex™
Oral decongestants: SUDAFED®

Some allergy medicines combine an antihistamine with a decongestant. Certain types of combo medicines (such as the ones that contain pseudoephedrine as the decongestant) are available "behind the counter". Behind-the-counter products are available without a prescription but have limitations on purchases due to state and federal laws. Talking with pharmacy staff is generally necessary to obtain these types of allergy medications.

Decongestant + antihistamine combos: Allegra-D®, Claritin-D®, Clarinex-D, ZYRTEC-D®

Check with your doctor before using decongestants if you have high blood pressure, heart disease, glaucoma, thyroid disease, or trouble urinating. They may cause issues if you have any of these conditions and they may interact with other prescription medicines.

Federal Regulations on Decongestants

The oral form of phenylephrine (PE) is a common active ingredient in many OTC decongestants. An expert panel of the FDA reviewed studies which showed oral PE is not effective at relieving nasal congestion in commonly used doses. The FDA is proposing to end use of oral PE. This would remove these products from the U.S. market. The change would not affect the nasal spray forms of PE.

Decongestants that contain pseudoephedrine (PSE) require photo identification and are only available to purchase behind the pharmacy counter.

Cromolyn sodium is a nasal spray that blocks your body from releasing chemicals (such as histamine and leukotrienes) that cause allergy symptoms. This medicine has few side effects, but you must take it three to six times a day. For optimal results, this medication should be used daily during your allergy season. It can be started up to one week before your allergy season begins.

Cromolyn sodium nasal spray: NasalCrom®

Leukotriene receptor antagonists (or modifiers) block the action of important chemical messengers (other than histamine) that are involved in allergic reactions. These medicines help manage asthma and allergic rhinitis symptoms. These medications are taken orally. How often you take them depends on the specific drug. Discuss the appropriate use of these medications with your doctor, including the risks and benefits of therapy.

Options include: ACCOLATE®, SINGULAIR®*, Zyflo CR®

*Note: Montelukast (brand name SINGULAIR®) has a black box warning because it can cause serious mental health side effects. This is a safety warning from the Food and Drug Administration (FDA). This means you need to be aware of a drug's side effects or important instructions for safe use of the drug. We encourage you to speak with your health care provider before, during, and after the start of any new medicine. If your doctor recommends montelukast, talk with them about possible risks and concerns.

Ask Your Doctor About Immunotherapy

If you do not get complete relief from medicines that treat allergy symptoms, talk with your allergy doctor about immunotherapy. Immunotherapy is a long-term treatment that can help prevent allergic reactions or make them less severe. It can change the body's immune response to allergens.

There are two types of immunotherapy: allergy shots and sublingual immunotherapy.

Allergy shots – subcutaneous immunotherapy (SCIT) have been around for more than 100 years and can provide long-lasting symptom relief. SCIT is a series of shots that have larger amounts of allergen in each shot. The allergen will be injected into the fat under the skin. Over time, allergic symptoms generally improve. Many people get complete relief within one to three years of starting SCIT. Many people also feel the benefits for at least several years after the shots stop.

Sublingual immunotherapy (SLIT) involves placing a tablet with the allergen under your tongue for one to two minutes and then swallowing it. The FDA has approved 4 types of under-the tongue tablets to treat allergies to grass pollen (GRASTEK®, Oralair®), ragweed pollen (RAGWITEK®), and dust mites (ODACTRA®). You take SLIT tablets daily before and during grass or ragweed season. This treatment offers people with these allergies a potential alternative to allergy shots.

(Your doctor may also customize SLIT in the form of allergy drops, although this is not approved by the FDA at this time.)

If I Live in an Allergy Capital, Should I Move?

Before you pack up your bags and go, it's important to consider the following:

- Pollen is everywhere. And it travels hundreds of miles. And in the case of ragweed, it is moving too – further and further north.
- Even if you move away from your current local pollen, you could develop allergies to the pollens in the new location.
- There are people in all locations that have seasonal allergies. You could live in the 100th city on our ranking and still have significant allergies.
- The rankings are based on a formula that is a mix of pollen scores, medicine usage, and access to allergists. Your city may rank higher on the list for any one of those reasons.

The best plan of action is to follow the tips we have shared.

Summary:

1. Do your best to limit the amount of pollen that gets into your home, hair, eyes, nose, and mouth.
2. Start your allergy medicines before your pollen season begins.
3. If you still don't have allergy relief, see an allergist and ask about treatment options including immunotherapy.

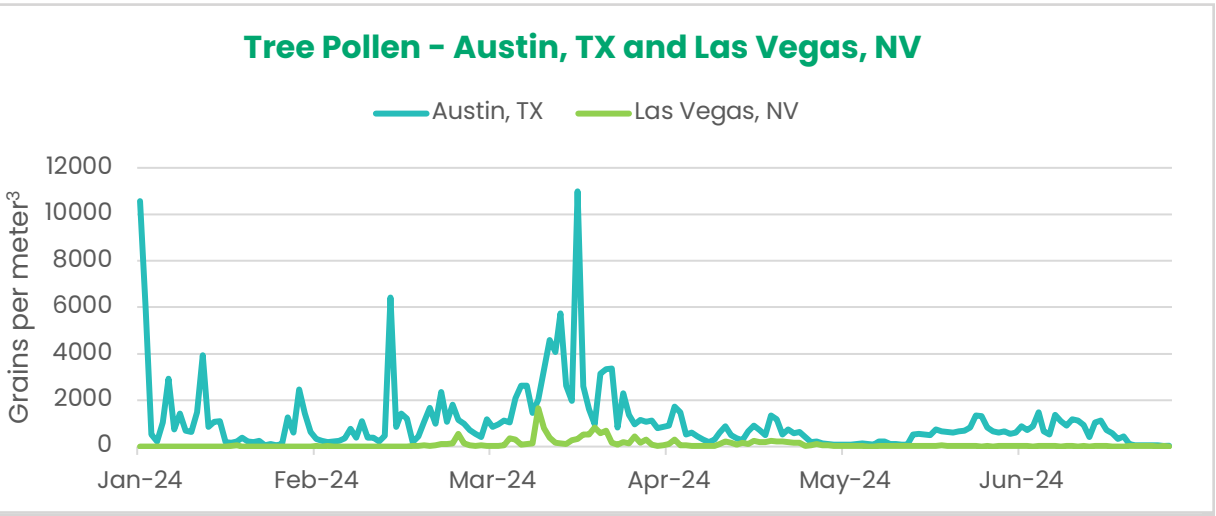
Tree Pollen

Tree pollen causes most spring allergy symptoms. It is the first pollen to appear each year in the United States. Over recent decades, trees have been producing more pollen that negatively impacts people sensitive to pollen. Throughout the U.S., trees produce the most pollen from February through April. But in some regions, such as the South, trees may produce pollen as early as December or January. Pollen production by different tree species peaks at various times during the year.[3]

There are some trees that produce large pollen you can see (a fine yellow dust that covers outdoor surfaces). This pollen is heavy and falls near the tree. Other trees produce smaller pollen that can't be seen. This smaller pollen is light and easy for the wind to carry. Wind-carried pollen is the only type of tree pollen to which most people are sensitive. The small pollen particles easily get into your eyes, nose, mouth, and airways.

The trees that cause the most allergy symptoms throughout the U.S. are:

- Alder
- Ash
- Aspen
- Beech
- Birch
- Box elder
- Cedar
- Cottonwood
- Elm
- Hickory
- Juniper
- Maple
- Mulberry
- Oak
- Olive
- Pecan
- Poplar
- Walnut
- Willow



In 2024, Austin, TX had one of the highest sums of "high" and "very high" days for tree pollen, as determined by existing risk scales for tree pollen. Las Vegas, NV, had one of the lowest sums of these days. In Austin, tree pollen was detected as early as December of the previous year and peaked in March. Austin and other Texas cities commonly experience "cedar fever" with peaks of Ashe juniper pollen in the winter months, whereas other pollen for other trees typically peak in spring. This is evident in the comparison of Austin to Las Vegas, where tree pollen was low in the beginning of the year but peaked in March; these peaks were much lower than those seen in Austin.
Powered by Pollen Sense Technology

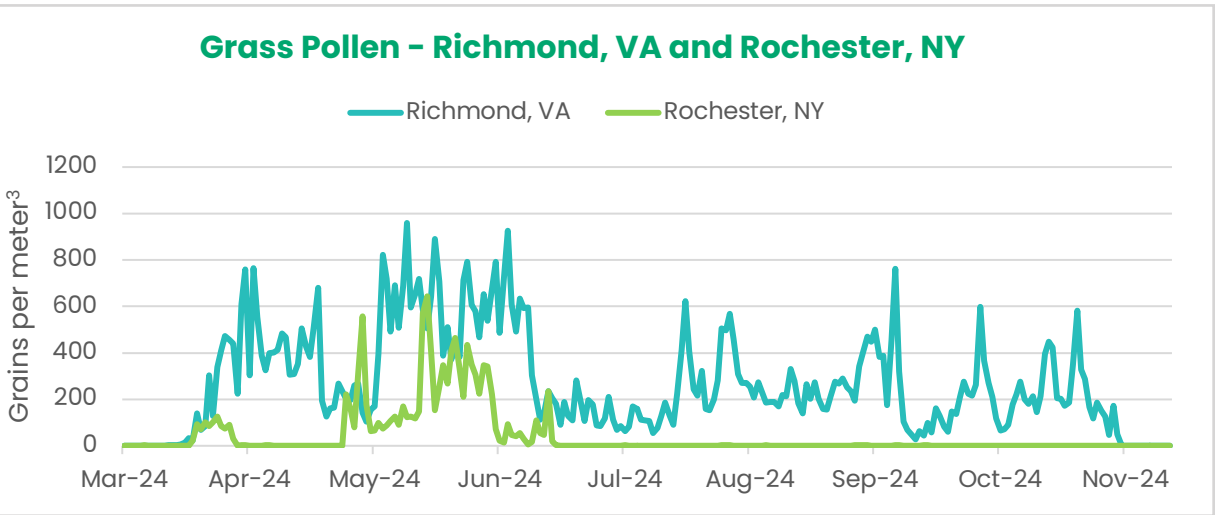
Grass Pollen

Grass causes most late spring and summer pollen allergy symptoms from April through early June.[4] But grass pollen can also be found year-round in warmer parts of the country. Grass pollen season can sometimes overlap with tree pollen or weed pollen seasons.

When you have a grass pollen allergy, you will only have symptoms when the pollen you are allergic to is in the air. Grass pollen is light and easily carried by the wind. So even if you aren't allergic to the grass near your home, you could still come into contact with grass pollen from other locations.

Even though there are hundreds of types of grasses, only a few cause allergy symptoms. The most common grasses that cause allergy symptoms are:

- Bahia
- Bermuda
- Fescue
- Johnson
- Kentucky blue
- Orchard
- Rye
- Sweet vernal
- Timothy



In 2024, Richmond, VA had many peaks of grass pollen from April to June, and again from August to November. Overall, Richmond had 231 days of the year that were in the "high" or "very high" range for grass pollen, as determined by existing risk scales for grass pollen. In Rochester, NY, grass pollen had peaks in May and June but overall had 303 days of the year in the "low" range for grass pollen.
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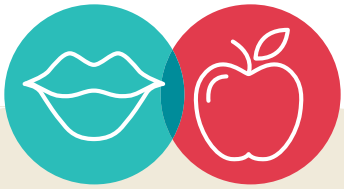
Grass and Weed Pollen Explosion in California

Although the top Allergy Capitals are concentrated in the Southern and Eastern halves of the country, big changes happened out West. California experienced increased grass and weed pollen counts in 2024 compared to 2023. For this reason, several cities drastically jumped in the Allergy Capitals ranking this year.

Metropolitan Area	2025 Rank	2024 Rank	Reason for the Change
Sacramento, CA	23	94	Much higher grass pollen, higher weed pollen
Bakersfield, CA	21	91	Much higher grass pollen, much higher weed
Stockton, CA	24	93	Much higher grass pollen, higher weed pollen
San Jose, CA	41	97	Much higher grass pollen, higher weed pollen
Fresno, CA	28	78	Much higher weed pollen
Oxnard, CA	33	75	Higher grass pollen, much higher weed pollen
Los Angeles, CA	51	85	Higher grass pollen, much higher weed pollen
San Francisco, CA	53	81	Higher weed pollen

Wet weather in California (including atmospheric rivers) likely contributed to the increased growth of grass and weeds.



Do You Have an Itchy Mouth?

Pollen may be responsible for allergic reactions to fruits or vegetables. Symptoms of an allergic reaction (like itchiness) in your mouth or throat when eating certain fresh/raw fruits, vegetables, or nuts may be related to **pollen food allergy syndrome (PFAS)**, also called **oral allergy syndrome (OAS)**. PFAS occurs because the proteins in some fruits, vegetables, and nuts are similar to some tree, grass, or weed pollen.[5] Your immune system gets confused and can't tell the difference. Cooking or peeling the fruits and vegetables usually helps remove the problematic proteins and allows someone to eat those foods without symptoms. Birch, alder, and ragweed pollen cause many PFAS reactions. If you think you may have PFAS, talk with an allergist.

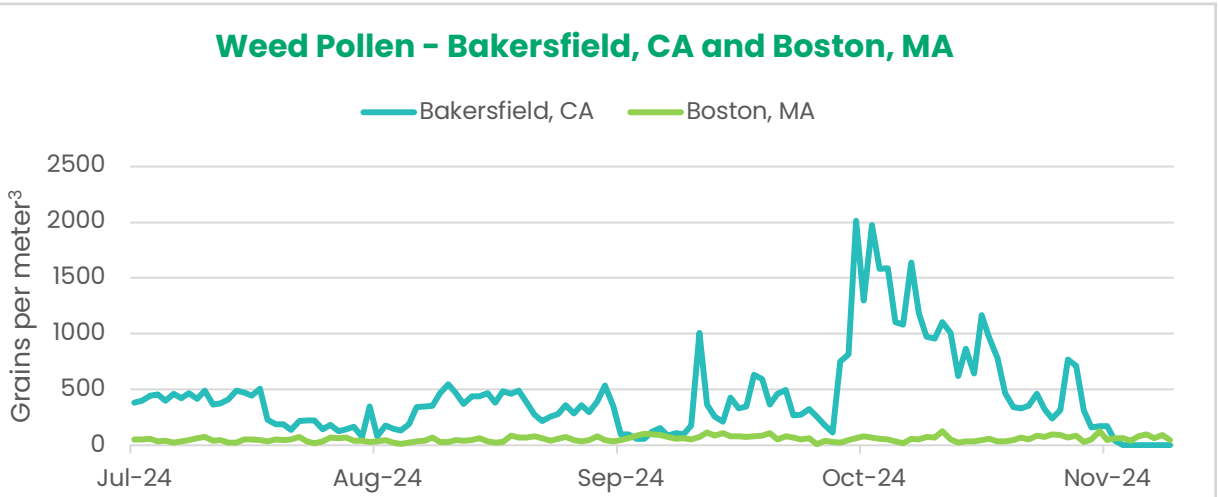
Weed Pollen

When it comes to weed pollen allergies, ragweed pollen is the worst offender. Ragweed allergy is the most common weed pollen allergy. About 1 in 7 people are allergic to ragweed pollen.[6] Ragweed is an invasive annual weed that grows throughout the United States in areas that have been disturbed by human activity. Ragweed populations are expanding and are particularly high in the Eastern and Midwestern states.

One ragweed plant can produce billions of light, dry pollen grains, which can then travel for hundreds of miles. Depending on your location, ragweed season starts around August and may last 6 to 10 weeks. In most areas in the U.S., it peaks in mid-September.[7] Your symptoms may continue until the first frost kills the plant. When temperatures remain warm through the fall, it extends the pollen season.

Other weed pollen can cause symptoms as well. These plants cause the most pollen allergy symptoms in the fall:

- Burning bush
- Cocklebur
- Lamb's-quarters
- Mugwort
- Pigweed
- Ragweed
- Russian thistle
- Sagebrush
- Tumbleweed



Weed pollen is prevalent in all 100 cities in our report. In fact, ragweed grows in every state except Alaska. Weed pollen is produced throughout the year, peaking around September. In 2024, Bakersfield, CA, had one of the highest sums of "high" and "very high" days for weed pollen, as determined by existing risk scales for weed pollen. Boston, MA, had the lowest number, with only 81 days of the year reaching these levels. While weed pollen usually peaks in the fall, the northeast experienced a drought in 2024, which may have reduced weed pollen levels for this region.
Powered by Pollen Sense Technology

There's No Denying It: Climate Change Is Fueling Pollen and Worsening Allergies

Climate change is leading to longer and more intense allergy seasons.[8,9,10] As the first and last frost dates change with the warming temperatures, it affects pollen production. Trees are releasing pollen earlier in the year and weeds are persisting later into the year. Research from 2019 shows pollen seasons start 20 days earlier, and last 10 days longer, compared to 30 years ago.[11,12] With less snow and warmer temperatures, plants start growing sooner. Research also shows climate change can continue to extend the length of allergy seasons. One study estimated that by the end of the century, warmer temperatures could make spring pollen season start 10–40 days earlier and summer/fall pollen seasons end an additional 5–15 days later.[13]

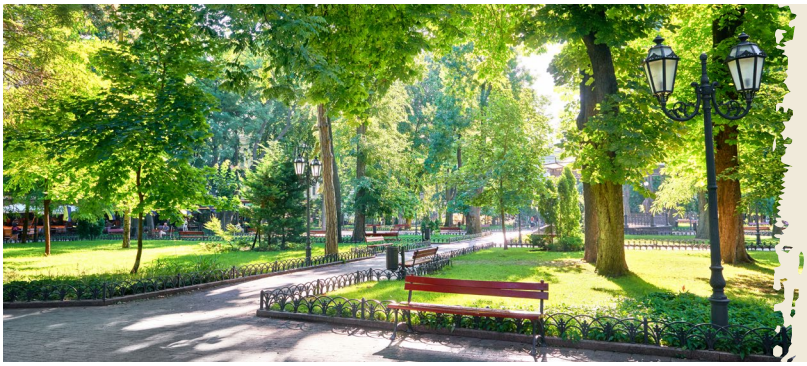
Additionally, the amount of pollen released by trees appears to be higher and its allergenicity appears to be stronger than in the recent past. Allergenicity means the strength of the allergic response to pollen. Researchers found that increased carbon dioxide (CO_2) gas in the air is linked to greater pollen production by trees. In other words, warmer temperatures mean plants start growing sooner and they produce a greater quantity of more highly allergenic pollen in response to rising CO_2 concentrations in the atmosphere.

Researchers say that climate change is responsible for about 50% of the increase in pollen seasons and about 8% of the increase in pollen concentrations. Pollen particles in the air have known health effects, especially in the lungs and airways. Previous research has shown that increased pollen can have negative effects on allergies and asthma, viral infections, school performance, and emergency room visits.[9]

Despite trees being a source of pollen, trees are effective tools at helping regulate climate. Trees remove CO_2 from the atmosphere and store it. The shade created by trees reduces surface temperature and energy use. Forests reduce flooding by absorbing rainwater and slowing its movement.

Urban areas with fewer trees experience higher temperatures than their surrounding areas. An **"urban heat island"** refers to a phenomenon where a city area is significantly warmer than surrounding rural areas due to the concentration of heat-absorbing surfaces like buildings and roads, which trap heat at ground-level. This is a contributing factor to increased health risks, particularly for vulnerable populations, due to the potential for exacerbated respiratory issues in hotter urban environments.

Adding greenspaces to urban communities, protecting forested lands, and diversifying trees in parks can help regulate surface temperature and reduce the amount of pollen in nearby areas.



The solution to our pollen problems may be...

more trees!

Pollen Counting

Pollen reports are valuable tools in helping people manage their seasonal allergies. But not all reports are equal. Some reports are pollen counts and some are pollen forecasts. Pollen counts are taken from samples of pollen at monitoring sites (using pollen counters or sensors) and are based on actual data. Pollen forecasts are predictions of expected pollen counts based on historical data.

While pollen forecasts can be helpful, pollen counts are more accurate. The National Allergy Bureau (NAB), affiliated with the American Academy of Allergy, Asthma & Immunology (AAAAI), is the most well-known resource for pollen counts in the United States. The NAB has a network of pollen monitoring sites across the United States.

Pollen monitoring sites can be helpful for many purposes, such as helping diagnose and treat allergies, studying the impact of climate change, and producing crop forecasts.[14,15] Most pollen counting sites use manual systems, where pollen is collected and placed on a microscopic slide and then counted by hand. Manual systems are the standard. But it can take up to 9 days for counts to be published.[14] Another limitation with manual pollen counting sites is that many places across the U.S. don't have stations.

More recently, automated pollen sensors are available for capturing pollen data. Automated sensors may reach areas manual counting cannot. Though this is a relatively new technology, pollen sensors continue to improve. There are several ways automated sensors can work, including using digital images or electric signals.[15] Automated pollen counting allows pollen information to be captured in a reliable and timely manner. They can produce hourly counts instead of daily counts.[14]

Automated sensors also help remove some of the challenges that come with manual counting, like differences between counters, inaccurate samples caused by changes in airflow, and uncertainty with low pollen concentrations.[16]

Pollen in Alaska and Hawaii

Based on local data, we know that Alaska and Hawaii have pollen seasons that are likely different from the rest of the United States. Alaska is the only state that is not impacted by ragweed, but has large bursts of tree, grass, and other weed pollen during its short growing seasons. Hawaii has a wide variety of pollen-producing plants, and warm temperatures allow for year-long plant growth. However, Alaska and Hawaii are often not included in national pollen monitoring systems. These states instead rely on local efforts to collect and analyze pollen data or use pollen forecasts to make estimates based on historical data. AAFA supports efforts to include these states in pollen surveillance systems, which is needed to accurately compare pollen data across the entire United States.

Methodology

The 2025 Allergy Capitals™ research and ranking is reported by the Asthma and Allergy Foundation of America (AAFA). The ranking is based on analysis of data from the 100 most-populated Metropolitan Statistical Areas (MSAs) in the contiguous 48 states as determined by the most recent U.S. Census Bureau population estimates (2023). The individual factors analyzed for the 2025 rankings are pollen scores for tree, grass, and weed pollen, over-the-counter medication use (allergy), and number of allergy specialists.

For each factor, AAFA used the most recently available 12-month data. Weights are applied to each factor; factors are not weighted equally. Total scores are calculated as a composite of all four factors, and cities are ranked from highest total score (city rank #1) to lowest total score (city rank #100). Cities are assigned icons for ■ worse than average, ▲ average, and ● better than average. Icons were assigned based on 0.5 standard deviation from the average.

Pollen Scores

For each MSA, AAFA obtained daily pollen counts for each growth form (tree, grass, and weed) for the most recent calendar year (2024). Data were obtained from Pollen Sense, LLC Automated Particulate Sensors (APS). These sensors automatically image particulate matter collected from ambient air and use a neural network algorithm to identify individual pollen species and calculate daily pollen counts. Using these daily pollen counts, AAFA calculated the number of days each MSA had within the "high" or "very high" levels for each growth form, as determined by existing risk scales for each type. "Very high" days had a higher weight than "high" days for the final calculation of pollen scores.

Pollen Sense

Medication Use

For each MSA, AAFA obtained over-the-counter sinus and allergy medication sales data. Data were obtained from the Circana Medication Sales Database for the most recent calendar year (2024). Medicine use estimates were calculated per 10,000 allergy patients using the most recent prevalence estimates.

Number of Allergy/Immunology Specialists

For each MSA, AAFA obtained the number of board-certified allergists/immunologists. Data were obtained from the Komodo Healthcare Map for the most recent calendar year (2024). Availability of allergy/immunology specialists per patient population was calculated using the most recent prevalence estimates.

Limitations

Data presented in this report have limitations that AAFA would like to acknowledge. Estimates for pollen and medicine use are limited in Alaska and Hawaii; therefore, data in these states are not included in this report. Estimates for prevalence included in the calculations for medicine use and specialist access were gathered from the most recent national data. There are no comprehensive prevalence data for seasonal allergy at the MSA or county level. More localized data are needed to get a better sense of medicine and health care use per patient population within each city. Additionally, pollen scores were calculated using existing scales for tree, grass, and weed pollen levels. Standardized risk levels for pollen collected by automated sensors have not yet been established. Additionally, pollen data were analyzed by how many days a city had pollen counts above the "high" and "very high" thresholds. However, this calculation does not account for how much higher above these thresholds the data can go, and some cities with pollen counts much higher than these thresholds can get diluted. Pollen data also do not account for the allergenicity of pollen or for population sensitivity to pollen. Finally, our medication sales data uses only estimates for over-the-counter allergy medication sales. While many people use over-the-counter medicine for pollen allergies, the data may not capture individuals who use only prescription medicines for allergies. Additionally, this category of medicine includes over-the-counter decongestants, which may be used for other purposes, such as colds.

References

1. Ng, A.E. & Boersma, P. (2023). *NCHS Data Brief, no 460: Diagnosed allergic conditions in adults: United States, 2021*. National Center for Health Statistics. https://dx.doi.org/10.15620/cdc:122809

2. Zablotsky, B., Black, L.I., & Akinbami, L.J.(2023). *NCHS Data Brief, no 459: Diagnosed allergic conditions in children aged 0-17 years: United States, 2021*. National Center for Health Statistics. https://dx.doi.org/10.15620/cdc:123250

3. Lo, F., Bitz, C.M., Battisti, D.S., & Hess, J.J. (2019). Pollen calendars and maps of allergenic pollen in North America. *Aerobiologia*, 35(4), 613–633. https://doi.org/10.1007/s10453-019-09601-2

4. American Academy of Allergy, Asthma & Immunology. (2023). *Mowing Down Your Grass Allergies.* https://www.aaaai.org/tools-for-the-public/conditions-library/allergies/mowing-down-your-grass-allergies

5. American Academy of Allergy, Asthma & Immunology. (2021). *Oral Allergy Syndrome Symptoms, Diagnosis & Treatment.* https://www.aaaai.org/Tools-for-the-Public/Conditions-Library/Allergies/Oral-allergy-syndrome-(OAS)

6. Salo, P. M., Arbes, S. J., Jaramillo, R., Calatroni, A., Weir, C. H., Sever, M. L., Hoppin, J. A., Rose, K. M., Liu, A. H., Gergen, P. J., Mitchell, H. E., & Zeldin, D. C. (2014). Prevalence of allergic sensitization in the U.S.: Results from the National Health and Nutrition Examination Survey (NHANES) 2005–2006. *The Journal of Allergy and Clinical Immunology*, 134(2), 350–359. https://doi.org/10.1016/j.jaci.2013.12.1071

7. American Academy of Allergy, Asthma & Immunology. (2020). *Ragweed plants packed with pollen.* https://www.aaaai.org/tools-for-the-public/conditions-library/allergies/ragweed

8. Singh, A. B., & Kumar, P. (2022). Climate change and allergic diseases: An overview. Frontiers in Allergy, 3, 964987. https://doi.org/10.3389/falgy.2022.964987

9. Poole, J. A., Barnes, C. S., Demain, J. G., Bernstein, J.A., Padukudru, M. A., Sheehan, W. J., Fogelbach, G. G., Wedner, J., Codina, R., Levetin, E., Cohn, J. R., Kagen, S., Portnoy, J. M., & Nel, A. E. (2019). Impact of weather and climate change with indoor and outdoor air quality in asthma: A work group report of the AAAAI Environmental Exposure and Respiratory Health Committee. *Journal of Allergy and Clinical Immunology*, 143(5), 1702–1710. https://doi.org/10.1016/j.jaci.2019.02.018

10. Ziska, L. H., Makra, L., Harry, S. K., Bruffaerts, N., Hendrickx, M., Coates, F., Saarto, A., Thibaudon, M., Oliver, G., Damialis, A., Charalampopoulos, A., Vokou, D., Heidmarsson, S., Gudjohnsen, E., Bonini, M., Oh, J.-W., Sullivan, K., Ford, L., Brooks, G. D., & Myszkowska, D. (2019). Temperature-related changes in airborne allergenic pollen abundance and seasonality across the northern hemisphere: A retrospective data analysis. *The Lancet Planetary Health*, 3(3), e124–e131. https://doi.org/10.1016/S2542-5196(19)30015-4

11. Anderegg, W. R. L., Abatzoglou, J. T., Anderegg, L. D. L., Bielory, L., Kinney, P. L., & Ziska, L. (2021). Anthropogenic climate change is worsening North American pollen seasons. *Proceedings of the National Academy of Sciences*, 118(7), e2013284118. https://doi.org/10.1073/pnas.2013284118

12. Climate Central. (2023). *Seasonal allergies: pollen and mold*. https://assets.ctfassets.net/cxgxgstp8r5d/6HEq6ZLb0QpvXxScvaM7sc/ae3024a9c4f2bcdd9b563d09b1bd07c3/FINALSeasonal_allergies_pollen_and_mold_2023__EN_.pdf

13. Zhang, Y., & Steiner, A. L. (2022). Projected climate-driven changes in pollen emission season length and magnitude over the continental United States. *Nature Communications, 13*(1), 1234. https://doi.org/10.1038/s41467-022-28764-0

14. Maya-Manzano, J. M., Tummon, F., Abt, R., Allan, N., Bunderson, L., Clot, B., Crouzy, B., Daunys, G., Erb, S., Gonzalez-Alonso, M., Graf, E., Grewling, Ł., Haus, J., Kadantsev, E., Kawashima, S., Martinez-Bracero, M., Matavulj, P., Mills, S., Niederberger, E., & Lieberherr, G. (2023). Towards European automatic bioaerosol monitoring: Comparison of 9 automatic pollen observational instruments with classic Hirst-type traps. *Science of the Total Environment*, 866, 161220. https://doi.org/10.1016/j.scitotenv.2022.161220

15. Buters, J., Clot, B., Galán, C., Gehrig, R., Gilge, S., Hentges, F., O'Connor, D., Sikoparija, B., Skjoth, C., Tummon, F., Adams-Groom, B., Antunes, C. M., Bruffaerts, N., Çelenk, S., Crouzy, B., Guillaud, G., Hajkova, L., Seliger, A. K., Oliver, G., & Ribeiro, H. (2022). Automatic detection of airborne pollen: an overview. *Aerobiologia, 40.* https://doi.org/10.1007/s10453-022-09750-x

16. Lucas, R. W., & Bunderson, L. (2023). A Review of Pollen Counting Networks: From the Nineteenth Century into the Twenty-first Century. *Current Allergy and Asthma Reports*, 24(1), 1–9. https://doi.org/10.1007/s11882-023-01119-5

Asthma and Allergy Foundation of America

1400 Crystal Drive • Suite 660 • Arlington, VA 22202
800-7-ASTHMA (800-727-8462) • aafa.org