

Allergy Capitals

Spring 2019

The Most Challenging Places
to Live With **SPRING ALLERGIES**



Asthma and Allergy
Foundation of America

A Message From AAFA

The Asthma and Allergy Foundation of America (AAFA) is pleased to share the 2019 Spring Allergy Capitals™ report which ranks the 100 largest cities in the continental United States. AAFA has published this annual report since 2003 to help patients recognize, prevent and manage allergy symptoms. The report also helps communities recognize where the needs of people with allergic diseases can be better met. Through the ranking, we seek to raise awareness about the impact of spring seasonal allergies and provide helpful information to improve the quality of life for people who experience them.

AAFA is committed to working on behalf of individuals with allergies and asthma. We are dedicated to improving the quality of life for people with asthma and allergic diseases through education, advocacy, research and support. We will continue to promote public policy initiatives that improve and protect quality of life and treatment options for those affected.

Spring pollen has increasingly intensified with longer, warmer growing seasons that produce stronger pollen at higher quantities. Communities need to work together to provide solutions to the challenges raised by climate change, rising health care costs and access to specialized care.

AAFA would like to acknowledge staff members Deidre Washington, PhD, Sanaz Eftekhari, Melanie Carver, Angel Waldron, Nicole Gaghan, Kimberly Rafferty, Tanya Bumgardner and Stacy Cooks for their contributions to this report. AAFA also wishes to thank the subject matter experts who supported the production of this report. We look forward to ongoing collaborations with stakeholders such as researchers, payers, scientists, clinicians, industry and policymakers to improve the quality of life for people with allergies and asthma.

Sincerely,



Kenneth Mendez, President and CEO



About Seasonal Allergies

For millions of Americans, allergies are life-limiting. It is critical for people to recognize what their triggers are and find ways to reduce exposure, as well as to consider appropriate treatments.^{1,2,3} Allergies are among the most common medical conditions affecting U.S. children and are of special concern among the elderly.^{4,5}

Allergies are a major public health concern, with more than 50 million Americans suffering from allergies every year.¹ More Americans than ever say they manage allergies. It is among the country's most common, but overlooked, diseases. Although there are approaches that can reduce sensitivity, there is no cure.

Allergies can be managed with prevention and treatment. Good allergy treatment is based on medical history, results of allergy tests and symptom severity. It can include three treatment types: avoiding allergens, medicine options and/or immunotherapy (allergy shots or tablets).

Allergic rhinitis, often called hay fever, is a common condition that causes symptoms such as sneezing, stuffy nose, runny nose, watery eyes and itching of the nose, eyes or roof of the mouth. Symptoms are usually caused by sensitivity to pollen from trees, grass, weeds; or mold spores. The prevalence of hay fever in children has been found to be roughly 18%, with the highest prevalence in southeastern and southern states.⁶ Allergic rhinitis can be perennial or seasonal, with symptoms occurring in spring, summer and/or early fall.

Seasonal allergies in the spring are caused mostly by tree pollen. The most common culprits are:

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

ABOUT THE ASTHMA AND ALLERGY FOUNDATION OF AMERICA

Celebrating over 65 years of service, AAFA is the oldest and largest nonprofit patient organization for asthma and allergies. Its mission is to save lives and reduce the burden of disease for people with asthma and allergies through support, advocacy, education and research. AAFA provides community-based services through its digital communities and network of local chapters and support groups. AAFA educates patients with practical information about disease management. AAFA also helps consumers identify products suitable for those with asthma and allergies through the **asthma & allergy friendly**[®] Certification Program. For more information, visit aafa.org.



Many cities show up repeatedly on the Allergy Capitals each year, but we've noticed a few which made the top 10 of both our 2019 Allergy **AND** 2018 Asthma Capitals™ rankings. These cities can be even more problematic for people with allergies and asthma. If pollen is an asthma trigger for you, take extra precautions (shown below) to protect yourself in these cities:

	2018 Asthma Capitals	2019 Spring Allergy Capitals
Springfield, MA	#1	#5
Louisville, KY	#5	#6
Richmond, VA	#2	#10

Protect Yourself from Pollen

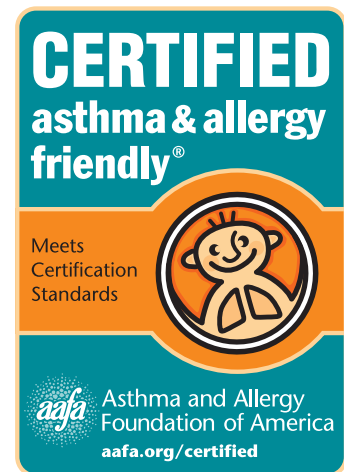
Spring allergy season begins with pollen released by trees, then grass later in spring. There are apps you can use to watch your area's pollen counts. On days that pollen is high for the trees or grass you are allergic to, take these actions to reduce your pollen exposure:

- Limit outdoor activities
- Keep windows closed
- Use central air conditioning with HEPA air filtration
- Wear sunglasses when outdoors
- Wear a hat to cover your hair
- Take a shower and shampoo hair before going to bed
- Change and wash clothes after outdoor activities
- Dry laundry in a clothes dryer, not on an outdoor line
- Limit contact with pets that spend time outdoors
- Wipe pets off with a towel before they enter your home
- Remove your shoes before entering your home
- Wash bedding in hot, soapy water once a week
- Use a nasal rinse to flush out inhaled pollen
- Use a CERTIFIED **asthma & allergy friendly**® air cleaner (portable or whole house) or HVAC air filter

There are also options available to prevent or treat allergy symptoms:

- Allergy medicines – some work best if taken before allergy season begins
- Immunotherapy – shots or tablets available as a long-term treatment. It can help prevent or reduce the severity of reactions

Talk with your doctor before allergy season begins to discuss which treatment is right for you. Now is a good time to book your appointment for end of summer before the fall allergy season begins.



The Most Challenging Places to Live With Spring Allergies

NATIONAL RANKINGS

(Factors are not weighted equally)

■ Worse Than Average

▲ Average

● Better Than Average

2019 National Spring Rankings (*Tie)	Overall	2018 Spring Rank (*Tie)	Metropolitan Area	Total Score (Avg. 55.87)	Subtotal: Pollen Score	Subtotal: Medicine Utilization per Patient	Subtotal: Board-Certified Allergists per Patient
1	■	1	McAllen, TX	100.00	■	■	■
2	■	3	Jackson, MS	84.74	▲	■	●
3	■	6	Providence, RI	80.48	■	■	■
4	■	4	Memphis, TN	78.92	■	■	▲
5	■	11	Springfield, MA	78.76	■	■	▲
6	■	2	Louisville, KY	78.67	■	■	▲
7	■	15	New Orleans, LA	73.56	▲	■	▲
8	■	47	Scranton, PA	73.04	■	▲	■
9	■	12	Baton Rouge, LA	72.67	▲	■	▲
10	■	16	Richmond, VA	72.45	■	▲	▲
11	■	14	Toledo, OH	71.82	▲	■	▲
12	■	8	Syracuse, NY	71.28	■	■	▲
13	■	7	Dayton, OH	70.70	■	■	▲
14	■	5	San Antonio, TX	70.32	■	▲	▲
15	■	17	Little Rock, AR	70.27	▲	■	●
16	■	23	Buffalo, NY	69.55	■	■	▲
17	■	13	El Paso, TX	68.83	■	■	▲
18	■	9	Oklahoma City, OK	68.64	■	▲	▲
19	■	19	Columbia, SC	68.57	▲	■	▲
20	■	10	Knoxville, TN	68.01	▲	■	▲
21	■	25	New York, NY	67.48	▲	■	■
22	■	26	Hartford, CT	67.04	■	▲	▲
23	■	24	New Haven, CT	66.76	■	▲	●
24	■	35	Greenville, SC	66.74	▲	■	▲
25	■	30	Philadelphia, PA	66.32	▲	■	▲
26	▲	34	Detroit, MI	65.15	▲	■	▲
27	▲	32	Akron, OH	64.18	■	▲	▲
28	▲	22	Wichita, KS	64.06	■	▲	▲
29	▲	38	Albany, NY	63.43	■	▲	▲
30	▲	37	Charleston, SC	63.20	▲	■	▲
31	▲	53	Fresno, CA	62.48	●	■	▲
32	▲	39	Cleveland, OH	62.45	■	▲	▲

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33	▲	21	Birmingham, AL	62.03	●	■	▲
34	▲	27	Las Vegas, NV	61.05	■	▲	▲
35*	▲	43	Greensboro, NC	60.94	▲	■	▲
35*	▲	46	Winston-Salem, NC	60.94	▲	■	▲
37	▲	29	Miami, FL	60.90	■	▲	■
38	▲	45	Augusta, GA	60.83	●	■	●
39	▲	N/A	Modesto, CA	60.28	●	▲	■
40	▲	48	Bridgeport, CT	60.06	■	●	●
41	▲	33	Pittsburgh, PA	59.69	■	▲	▲
42	▲	56	Charlotte, NC	58.59	●	■	▲
43	▲	20	Chattanooga, TN	58.47	●	■	▲
44	▲	36	Grand Rapids, MI	58.35	■	▲	▲
45	▲	31	Dallas, TX	57.61	▲	▲	▲
46	▲	28	Columbus, OH	57.51	▲	▲	▲
47	▲	52	Allentown, PA	57.02	▲	▲	▲
48	▲	51	Jacksonville, FL	56.98	▲	▲	▲
49	▲	44	Cape Coral, FL	56.66	▲	●	■
50	▲	50	Virginia Beach, VA	56.32	▲	●	■
51	▲	41	St. Louis, MO	55.97	▲	▲	▲
52	▲	61	Riverside, CA	55.18	▲	●	■
53	▲	40	Tulsa, OK	54.79	▲	▲	▲
54	▲	60	Orlando, FL	53.94	▲	▲	■
55	▲	55	Albuquerque, NM	53.51	▲	▲	▲
56	▲	59	Houston, TX	53.49	▲	▲	▲
57	▲	62	Lakeland, FL	53.17	▲	▲	▲
58	▲	67	Durham, NC	52.76	●	■	●
59	▲	64	Tampa, FL	52.66	▲	▲	▲
60	▲	57	Madison, WI	52.03	●	▲	●
61	▲	42	Tucson, AZ	51.97	▲	▲	▲
62	▲	66	Los Angeles, CA	51.57	▲	●	▲
63	▲	54	Nashville, TN	51.46	●	▲	▲
64	▲	72*	Worcester, MA	51.41	▲	▲	▲
65	▲	79	Stockton, CA	51.31	●	▲	▲
66	▲	58	Omaha, NE	50.47	●	▲	▲

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(Factors are not weighted equally)

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2019 National Spring Rankings (*Tie)	Overall	2018 Spring Rank (*Tie)	Metropolitan Area	Total Score (Avg. 55.87)	Subtotal: Pollen Score	Subtotal: Medicine Utilization per Patient	Subtotal: Board-Certified Allergists per Patient
67	▲	76	Atlanta, GA	50.25	●	▲	■
68	▲	80	Bakersfield, CA	49.20	●	▲	■
69	▲	49	Austin, TX	48.95	▲	●	▲
70	▲	63	Cincinnati, OH	48.82	●	▲	▲
71	▲	77	Baltimore, MD	48.70	●	▲	▲
72	▲	65	Chicago, IL	47.98	▲	●	▲
73	▲	82	Boston, MA	47.44	▲	●	▲
74	▲	78	Oxnard, CA	47.07	▲	●	▲
75	▲	69	Rochester, NY	47.05	●	▲	●
76*	▲	68	Indianapolis, IN	46.18	●	▲	▲
76*	▲	70	Minneapolis, MN	46.18	▲	●	▲
78	●	74	Harrisburg, PA	45.38	●	▲	▲
79	●	71	Phoenix, AZ	43.87	●	●	▲
80	●	85	Sacramento, CA	43.79	●	●	▲
81	●	83	Washington, DC	43.47	●	●	■
82	●	84	Palm Bay, FL	43.30	▲	●	▲
83	●	72*	Kansas City, MO	43.10	●	▲	▲
84	●	86	Daytona Beach, FL	42.16	▲	●	▲
85	●	81	Milwaukee, WI	41.83	●	▲	▲
86	●	87	Sarasota, FL	41.55	▲	●	▲
87	●	75	Des Moines, IA	41.46	●	●	▲
88	●	89	San Diego, CA	41.30	▲	●	▲
89	●	91	Spokane, WA	40.61	▲	●	▲
90	●	88	San Francisco, CA	40.12	▲	●	▲
91	●	92	Raleigh, NC	39.04	●	●	▲
92	●	90	San Jose, CA	37.34	▲	●	●
93	●	94	Seattle, WA	36.40	●	●	▲
94	●	97	Portland, OR	33.82	●	●	■
95	●	96	Colorado Springs, CO	32.71	●	●	▲
96	●	93	Salt Lake City, UT	32.48	●	●	▲
97	●	95	Ogden, UT	31.78	●	●	■
98	●	98	Boise, ID	29.88	●	●	▲
99	●	99	Provo, UT	26.83	●	●	▲
100	●	100	Denver, CO	26.07	●	●	▲

REGIONAL RANKINGS

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NORTHEAST							
2019 Regional Spring Rankings	Overall	2019 National Rank	Metropolitan Area	Total Score (Avg. 55.87)	Subtotal: Pollen Score	Subtotal: Medicine Utilization per Patient	Subtotal: Board-Certified Allergists per Patient
1	■	3	Providence, RI	80.48	■	■	■
2	■	5	Springfield, MA	78.76	■	■	▲
3	■	8	Scranton, PA	73.04	■	▲	■
4	■	12	Syracuse, NY	71.28	■	■	▲
5	■	16	Buffalo, NY	69.55	■	■	▲
SOUTH							
2019 Regional Spring Rankings	Overall	2019 National Rank	Metropolitan Area	Total Score (Avg. 55.87)	Subtotal: Pollen Score	Subtotal: Medicine Utilization per Patient	Subtotal: Board-Certified Allergists per Patient
1	■	1	McAllen, TX	100.00	■	■	■
2	■	2	Jackson, MS	84.74	▲	■	●
3	■	4	Memphis, TN	78.92	■	■	▲
4	■	6	Louisville, KY	78.67	■	■	▲
5	■	7	New Orleans, LA	73.56	▲	■	▲
MIDWEST							
2019 Regional Spring Rankings	Overall	2019 National Rank	Metropolitan Area	Total Score (Avg. 55.87)	Subtotal: Pollen Score	Subtotal: Medicine Utilization per Patient	Subtotal: Board-Certified Allergists per Patient
1	■	11	Toledo, OH	71.82	▲	■	▲
2	■	13	Dayton, OH	70.70	■	■	▲
3	▲	26	Detroit, MI	65.15	▲	■	▲
4	▲	27	Akron, OH	64.18	■	▲	▲
5	▲	28	Wichita, KS	64.06	■	▲	▲
WEST							
2019 Regional Spring Rankings	Overall	2019 National Rank	Metropolitan Area	Total Score (Avg. 55.87)	Subtotal: Pollen Score	Subtotal: Medicine Utilization per Patient	Subtotal: Board-Certified Allergists per Patient
1	▲	31	Fresno, CA	62.48	●	■	▲
2	▲	34	Las Vegas, NV	61.05	■	▲	▲
3	▲	39	Modesto, CA	60.28	●	▲	■
4	▲	52	Riverside, CA	55.18	▲	●	■
5	▲	55	Albuquerque, NM	53.51	▲	▲	▲

METHODOLOGY

The 2019 Spring 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. The three (3) individual factors analyzed for the 2018 rankings are: seasonal (Spring) pollen score, 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 three factors and cities are ranked from highest total score (city rank #1) to lowest total score (city rank #100).

Seasonal (Spring) Pollen Score

For each city, AAFA obtained a comprehensive index of the population at risk of being affected by airborne allergenic pollen, derived from actual pollen counts, allergy prevalence for each pollen type, and related factors for the most recent Spring allergy season (Spring 2018).

Medication Use

For each city, AAFA obtained the number of allergy medication prescriptions per patient prevalence for the most recent Spring allergy season (Spring 2018). Also includes over-the-counter and behind-the-counter allergy medication sales at the pharmacy counter.

Number of Allergy Specialists

For each city, AAFA obtained the number of board-certified allergists/immunologists per patient prevalence.

Data Sources

- American Board of Medical Specialties, Specialists Database
- IQVIA Allergy Activity Notification (AAN) Program Database
- IQVIA Medication Database
- U.S. Department of Commerce, Bureau of the Census, Metropolitan and Micropolitan Statistical Areas

REFERENCES

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