Allergy Capitals
Spring 2018

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

Asthma and Allergy Foundation of America

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A Message From AAFA

The Asthma and Allergy Foundation of America (AAFA) is pleased to share the 2018 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 their residents 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 the people who experience them.

In the absence of a cure, successful management of chronic and potentially life-threatening allergies and asthma requires:

- Recognizing signs and symptoms
- Provider diagnosis and treatment
- Reducing or controlling exposure to environmental triggers
- Ongoing patient (and family/caregiver) involvement
- Monitoring and self-management

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 by asthma and allergies.

The spring pollen season 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.

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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
Melanie Carver, Vice President of Community Health and Services

Background and Introduction

For millions of Americans, allergies are life-limiting. It is critical for people to recognize elements that may trigger their allergies and to determine ways to reduce exposure, as well as to consider appropriate treatments.[1 2 3] Allergic conditions are among the most common medical conditions affecting U.S. children and they 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 allergic sensitivity, there is no cure for allergies. Allergies can be managed with prevention and treatment. Good allergy treatment is based on medical history, the results of allergy tests and symptom severity. It can include three treatment types: avoiding allergens, medicine options and/or immunotherapy (allergy shots). Allergies account for $18 billion in costs yearly.[1] Americans also lose more than 6 million work and school days and make 16 million visits to their doctors.[6]

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 the roof of the mouth. Symptoms are usually caused by allergic sensitivity to pollens from trees, grasses or weeds, or to airborne 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.[7] Allergic rhinitis can be seasonal or perennial, with symptoms of seasonal allergic rhinitis occurring in spring, summer and/or early fall.

How to Reduce Allergic Reactions and Symptoms From Pollen Allergy

The spring allergy season begins with pollen released by trees, and then grasses follow later in spring. There are apps you can use to watch your area's pollen counts. On days that the pollens are high for the trees or grasses you are allergic to, you can take these actions to lessen the amount of pollens you are exposed to:

- Limit your outdoor activities
- Keep your windows closed
- Use central air conditioning with air filtration
- Wear sunglasses when you are outdoors
- Wear a hat to cover your hair
- Take a shower and shampoo your hair before going to bed to remove pollen from your hair and skin
- Change and wash clothes work during outdoor activities
- Dry your laundry in a clothes dryer, not on an outdoor line
- Limit close contact with pets that spend a lot of time outdoors
- Wipe pets off with a towel before they enter your home

- Remove your shoes before entering your home
- Wash your bedding in hot, soapy water once a week
- Rinse the inside of your nose with a nasal rinse to flush out and remove pollens you have inhaled into your nasal passages
- Use a CERTIFIED **asthma & allergy friendly**® air cleaner (portable or whole house/HVAC)

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

- Over-the-counter or prescription allergy medicines – some of these work best if you start taking them before the allergy season begins
- Immunotherapy – there are shots or tablets available that are a long-term treatment for pollen allergy. It can help prevent or reduce the severity of allergic reactions

Talk with your doctor or health care provider months before the allergy season begins so you can discuss which treatment is right for you. Now is a good time to book your appointment for the end of the year (in mid-winter) before next spring begins.

How to Reduce Your Exposure to Mold Spores Outside

If you have a mold allergy, you may experience symptoms year-round. When mold counts are high, there are some steps you can take to reduce your exposure to outdoor molds:

- Limit your outdoor activities. This will lessen the amount of mold spores you inhale and your symptoms.
- Wear a mask and sunglasses/goggles when cutting grass, digging around plants, picking up leaves and disturbing other plant materials.

ABOUT THE ASTHMA AND ALLERGY FOUNDATION OF AMERICA

Founded in 1953 and celebrating 65 years of service, AAFA is the oldest and largest nonprofit patient organization dedicated to improving the quality of life for people with asthma, allergies and related conditions through research, education, advocacy and support. AAFA provides practical information and community-based services through its digital communities and national network of local chapters and educational support groups. Through its Kids With Food Allergies division, AAFA offers the most extensive online support community for families raising children with food allergies. 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**.

The Most Challenging Places to Live With Spring Allergies

NATIONAL RANKINGS

■ Worse Than Average ▲ Average ● Better Than Average

(Factors are not weighted equally)

2018 National Spring Rankings *(*Tie)*	Overall	2016 Spring Rank	Metropolitan Area	Total Score *(Avg. 56.48)*	Subtotal: Pollen Score**	Subtotal: Medicine Utilization per Patient	Subtotal: Board-Certified Allergists per Patient
1	■	5	McAllen, TX	100.00	■	■	■
2	■	4	Louisville, KY	86.84	■	■	▲
3	■	1	Jackson, MS	84.83	▲	■	●
4	■	2	Memphis, TN	80.30	■	■	▲
5	■	22	San Antonio, TX	79.39	■	▲	▲
6	■	8	Providence, RI	76.88	■	■	■
7	■	11	Dayton, OH	76.81	■	■	▲
8	■	3	Syracuse, NY	74.96	■	■	▲
9	■	7	Oklahoma City, OK	74.36	■	■	▲
10	■	9	Knoxville, TN	73.23	▲	■	▲
11	■	20	Springfield, MA	70.84	■	▲	▲
12	■	15	Baton Rouge, LA	70.74	▲	■	▲
13	■	45	El Paso, TX	70.57	■	■	▲
14	■	18	Toledo, OH	70.47	▲	■	▲
15	■	17	New Orleans, LA	69.31	▲	■	▲
16	■	14	Richmond, VA	68.52	■	▲	▲
17	■	12	Little Rock, AR	67.92	▲	■	●
18	■	34	Youngstown, OH	67.05	▲	▲	▲
19	▲	13	Columbia, SC	66.47	▲	■	▲
20	▲	23	Chattanooga, TN	66.09	●	■	▲
21	▲	41	Birmingham, AL	65.95	●	■	▲
22	▲	6	Wichita, KS	65.88	■	▲	▲
23	▲	10	Buffalo, NY	65.66	■	▲	▲
24	▲	57	New Haven, CT	65.51	■	▲	●
25	▲	31	New York, NY	65.37	▲	■	■
26	▲	56	Hartford, CT	64.85	■	▲	▲
27	▲	53	Las Vegas, NV	64.61	■	▲	■
28	▲	55	Columbus, OH	64.47	■	▲	▲
29	▲	75	Miami, FL	64.33	■	▲	■
30	▲	21	Philadelphia, PA	64.28	▲	■	▲
31	▲	27	Dallas, TX	64.19	■	▲	▲
32	▲	25	Akron, OH	63.88	▲	▲	▲

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33	▲	*54*	Pittsburgh, PA	62.76	■	▲	▲
34	▲	*39*	Detroit, MI	62.69	▲	■	▲
35	▲	*32*	Greenville, SC	62.58	▲	■	▲
36	▲	*43*	Grand Rapids, MI	62.50	■	▲	▲
37	▲	*28*	Charleston, SC	62.03	▲	■	▲
38	▲	*49*	Albany, NY	61.91	■	▲	▲
39	▲	*42*	Cleveland, OH	61.28	▲	▲	▲
40	▲	*16*	Tulsa, OK	60.24	▲	▲	▲
41	▲	*35*	St. Louis, MO	59.69	▲	▲	▲
42	▲	*24*	Tucson, AZ	59.67	■	▲	▲
43	▲	*40*	Greensboro, NC	59.29	●	■	▲
44	▲	*47*	Cape Coral, FL	59.07	▲	●	■
45	▲	*33*	Augusta, GA	58.87	●	■	●
46	▲	*19*	Winston-Salem, NC	58.31	●	■	▲
47	▲	*59*	Scranton, PA	58.05	●	▲	■
48	▲	*69*	Bridgeport, CT	57.99	■	●	●
49	▲	*58*	Austin, TX	57.90	■	▲	▲
50	▲	*52*	Virginia Beach, VA	57.81	▲	▲	■
51	▲	*50*	Jacksonville, FL	57.57	▲	▲	▲
52	▲	*46*	Allentown, PA	57.19	▲	▲	▲
53	▲	*36*	Fresno, CA	55.84	●	▲	▲
54	▲	*29*	Nashville, TN	55.27	●	■	▲
55	▲	*38*	Albuquerque, NM	54.56	▲	▲	▲
56	▲	*37*	Charlotte, NC	54.47	●	▲	▲
57	▲	*26*	Madison, WI	54.26	▲	▲	●
58	▲	*30*	Omaha, NE	54.04	●	■	▲
59	▲	*60*	Houston, TX	53.68	▲	▲	▲
60	▲	*87*	Orlando, FL	53.29	▲	▲	■
61	▲	*48*	Riverside, CA	52.67	▲	●	■
62	▲	*76*	Lakeland, FL	51.92	▲	▲	▲
63	▲	*74*	Cincinnati, OH	51.90	●	▲	▲
64	▲	*72*	Tampa, FL	51.42	▲	▲	▲
65	▲	*81*	Chicago, IL	51.10	▲	▲	▲
66	▲	*67*	Los Angeles, CA	50.41	▲	●	▲

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67	▲	*51*	Durham, NC	50.22	●	■	●
68	▲	*65*	Indianapolis, IN	49.70	●	▲	▲
69	▲	*61*	Rochester, NY	49.02	●	▲	●
70	▲	*71*	Minneapolis, MN	48.74	▲	●	▲
71	▲	*62*	Phoenix, AZ	48.37	▲	▲	▲
72*	▲	*63*	Worcester, MA	48.03	▲	▲	▲
72*	▲	*64*	Kansas City, MO	48.03	●	▲	▲
74	▲	*68*	Harrisburg, PA	47.82	●	▲	▲
75	▲	*44*	Des Moines, IA	47.80	▲	▲	▲
76	▲	*70*	Atlanta, GA	47.39	●	▲	■
77	▲	*66*	Baltimore, MD	47.16	●	▲	▲
78	▲	*85*	Oxnard, CA	46.71	▲	●	▲
79	●	*78*	Stockton, CA	45.53	●	▲	▲
80	●	*79*	Bakersfield, CA	45.18	●	●	■
81	●	*73*	Milwaukee, WI	44.60	●	▲	▲
82	●	*77*	Boston, MA	43.83	▲	●	▲
83	●	*84*	Washington, DC	43.32	●	●	■
84	●	*96*	Palm Bay, FL	43.15	▲	●	▲
85	●	*89*	Sacramento, CA	41.56	●	●	▲
86	●	*100*	Daytona Beach, FL	41.31	▲	●	▲
87	●	*91*	Sarasota, FL	40.71	▲	●	▲
88	●	*80*	San Francisco, CA	40.64	▲	●	▲
89	●	*97*	San Diego, CA	39.65	▲	●	▲
90	●	*86*	San Jose, CA	39.52	▲	●	●
91	●	*83*	Spokane, WA	39.00	▲	●	▲
92	●	*93*	Raleigh, NC	38.88	●	●	▲
93	●	*88*	Salt Lake City, UT	36.57	●	●	▲
94	●	*82*	Seattle, WA	36.00	●	●	▲
95	●	*90*	Ogden, UT	35.45	●	●	■
96	●	*95*	Colorado Springs, CO	33.44	●	●	▲
97	●	*92*	Portland, OR	33.12	●	●	■
98	●	*94*	Boise, ID	31.91	●	●	▲
99	●	*98*	Provo, UT	29.50	●	●	▲
100	●	*99*	Denver, CO	28.92	●	●	▲

REGIONAL RANKINGS

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(Factors are not weighted equally)

NORTHEAST

2018 Regional Spring Rankings	Overall	2018 National Rank	Metropolitan Area	Total Score *(Avg. 56.48)*	Subtotal: Pollen Score**	Subtotal: Medicine Utilization per Patient	Subtotal: Board-Certified Allergists per Patient
1	■	*6*	Providence, RI	76.88	■	■	■
2	■	*8*	Syracuse, NY	74.96	■	■	▲
3	■	*11*	Springfield, MA	70.84	■	▲	▲
4	▲	*23*	Buffalo, NY	65.66	■	▲	▲
5	▲	*24*	New Haven, CT	65.51	■	▲	●

SOUTH

2018 Regional Spring Rankings	Overall	2018 National Rank	Metropolitan Area	Total Score *(Avg. 56.48)*	Subtotal: Pollen Score**	Subtotal: Medicine Utilization per Patient	Subtotal: Board-Certified Allergists per Patient
1	■	*1*	McAllen, TX	100.00	■	■	■
2	■	*2*	Louisville, KY	86.84	■	■	▲
3	■	*3*	Jackson, MS	84.83	▲	■	●
4	■	*4*	Memphis, TN	80.30	■	■	▲
5	■	*5*	San Antonio, TX	79.39	■	▲	▲

MIDWEST

2018 Regional Spring Rankings	Overall	2018 National Rank	Metropolitan Area	Total Score *(Avg. 56.48)*	Subtotal: Pollen Score**	Subtotal: Medicine Utilization per Patient	Subtotal: Board-Certified Allergists per Patient
1	■	*7*	Dayton, OH	76.81	■	■	▲
2	■	*14*	Toledo, OH	70.47	▲	■	▲
3	■	*18*	Youngstown, OH	67.05	▲	▲	▲
4	▲	*22*	Wichita, KS	65.88	■	▲	▲
5	▲	*28*	Columbus, OH	64.47	■	▲	▲

WEST

2018 Regional Spring Rankings	Overall	2018 National Rank	Metropolitan Area	Total Score *(Avg. 56.48)*	Subtotal: Pollen Score**	Subtotal: Medicine Utilization per Patient	Subtotal: Board-Certified Allergists per Patient
1	▲	*27*	Las Vegas, NV	64.61	■	▲	■
2	▲	*42*	Tucson, AZ	59.67	■	▲	▲
3	▲	*53*	Fresno, CA	55.84	●	▲	▲
4	▲	*55*	Albuquerque, NM	54.56	▲	▲	▲
5	▲	*61*	Riverside, CA	52.67	▲	●	■

METHODOLOGY

The 2018 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 calendar year 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 2017).

Medication Use
For each city, AAFA obtained the number of allergy medication prescriptions per patient prevalence, for the most recent spring allergy season (spring 2017). 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

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