



2020 **Allergy** Capitals

The Most Challenging Places
to Live With Allergies



Asthma and Allergy
Foundation of America

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Improving the Quality of Life for People With Seasonal Allergies

The Asthma and Allergy Foundation of America (AAFA) is pleased to share the 2020 Allergy Capitals™ report. This year's report uses both spring and fall allergy data to rank the 100 largest cities in the continental United States. Since 2003, AAFA has produced this report to help people recognize, prevent and manage allergy symptoms. The report also helps communities identify where the needs of people with allergic diseases can be better met. Through the ranking, we seek to raise awareness about the impact of seasonal allergies and provide helpful information to improve the quality of life for people who experience them.

Both spring and fall pollen has increasingly strengthened with longer, warmer growing seasons that produce stronger pollen at higher quantities. While mold can grow any time of year, outdoor mold is worse in the fall, adding to fall allergy concerns. 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 is 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. People with asthma and allergies should be able to find relief no matter where they live.

In this report, we cover:

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IMPACT OF 2018 HURRICANES ON POLLEN DATA



Two major hurricanes hit the U.S. in 2018. Hurricane Florence affected the Carolinas, and Hurricane Michael made landfall in Florida. Based on our year-over-year comparison of 2018 to 2019 spring pollen data, we found significant drops in pollen counts in Raleigh, North Carolina, and parts of North and Central Florida.



ABOUT THE ASTHMA AND ALLERGY FOUNDATION OF AMERICA

Founded in 1953, AAFA is the oldest and largest non-profit 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 empowers patients and their families by providing practical, evidence-based information and community programs and services. AAFA offers extensive online support communities for individuals and families affected by asthma and allergic diseases, such as food allergies and atopic dermatitis (eczema). AAFA also helps consumers identify products to help them create healthier homes through the **asthma & allergy friendly®** Certification Program. For more information, visit aafa.org, aafa.org/certified and kidswithfoodallergies.org.

Background

For millions of Americans, allergies are life-limiting. Allergic conditions are among the most common medical conditions affecting U.S. children.¹ They are of special concern among the elderly.² People with allergies need to find what may trigger their allergies and find ways to reduce exposure and consider appropriate treatments.³

Allergies are a major public health concern. More than 50 million Americans suffer from allergies every year.³ It is among the country's most common, but overlooked, diseases. There is no cure for allergies. But allergies can be managed with prevention and treatment. A good allergy treatment plan is based on medical history, the results of allergy tests and symptom severity. It can include three treatment types:

- Reducing and avoiding allergens
- Medicine options
- Immunotherapy (allergy shots or sublingual therapy)

One of the most common allergic conditions is **allergic rhinitis, often called hay fever**. It causes symptoms such as:

- Sneezing
- Stuffy nose
- Runny nose
- Watery eyes
- Itching of the nose, eyes or the roof of the mouth

Allergic sensitivity to airborne mold spores or pollens from trees, grasses or weeds tends to cause symptoms. Allergic rhinitis occurs in about 18% of children, mostly in Southern and Southeastern states.⁴ Allergic rhinitis can be seasonal or year-round. Symptoms of seasonal allergic rhinitis usually occur in spring, summer and/or early fall.

About Seasonal Allergies

People with allergic rhinitis may have symptoms that get worse during one season over another. Why? Different types of allergens peak at different times of the year. In the spring, tree pollen is more common. In the fall, weed pollen – especially ragweed pollen – peaks. Mold is also higher in the fall, often hiding in piles of fallen leaves. It thrives in many Southern states where humidity is still high in the fall.

SPRING

Tree pollen causes most springtime seasonal allergies. Tree pollen season can start as early as January in some states and can last through July. Tree pollen is smaller than many other types of pollen. This allows the wind to carry it for miles, finding its way into sinuses, lungs and eyes, making it hard to avoid.

The most common tree pollen culprits are:

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

FALL

When it comes to fall allergies, ragweed pollen is the worst offender. Ragweed allergy is the most common weed pollen allergy, affecting 10 to 20% of Americans. One plant can produce billions of light, dry pollen grains, which can then travel for miles. Other weed pollens can cause symptoms as well.

These plants are responsible for causing most fall allergy symptoms:

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

Mold counts also tend to be higher in the fall. Mold collects among piles of fallen leaves and decaying wood. Dry and windy fall weather can spread mold spores. But warm, humid weather can encourage mold growth too.



Managing Your Contact With Pollen

Spring allergy season begins with pollen released by trees. Grass pollen appears later in the spring. Weeds release pollen in the late summer and through the fall. There are apps that track local pollen counts to help people manage their exposure. On days when pollen is high, take these actions to reduce pollen contact:

- Check pollen counts daily, and plan outdoor activities on days when pollen counts are lower.
- Keep windows closed.
- If possible, use central air conditioning with a CERTIFIED **asthma & allergy friendly**® HVAC filter.
- Wear sunglasses and a hat when outdoors.
- Take a shower and shampoo hair before going to bed.
- Change and wash clothes after outdoor activities.
- Dry laundry in a clothes dryer or on an indoor rack, not on an outdoor line.
- 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.

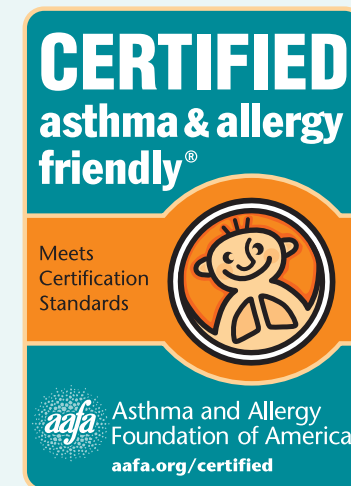
There are also options available to prevent or treat allergy symptoms. Some of these treatments work best if taken before allergy season begins:

- Allergy medicines – such as antihistamines
- Nasal corticosteroid sprays
- Immunotherapy – shots or tablets available as a long-term treatment that can help prevent or reduce the severity of reactions

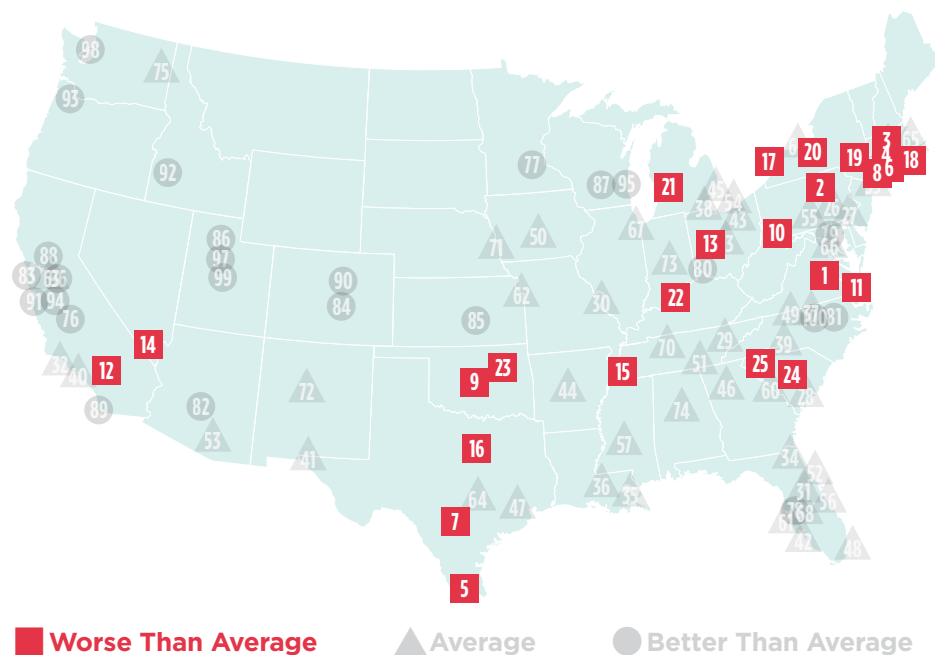
Talk with your doctor before allergy season begins about which treatment is right for you.



Through the **asthma & allergy friendly**® Certification Program, we have tested and certified products to help you improve indoor air quality and create a healthier home. When you are shopping for products for your home, look for the CERTIFIED **asthma & allergy friendly**® mark. Visit aafa.org/certified to search for CERTIFIED products and learn more about our program.



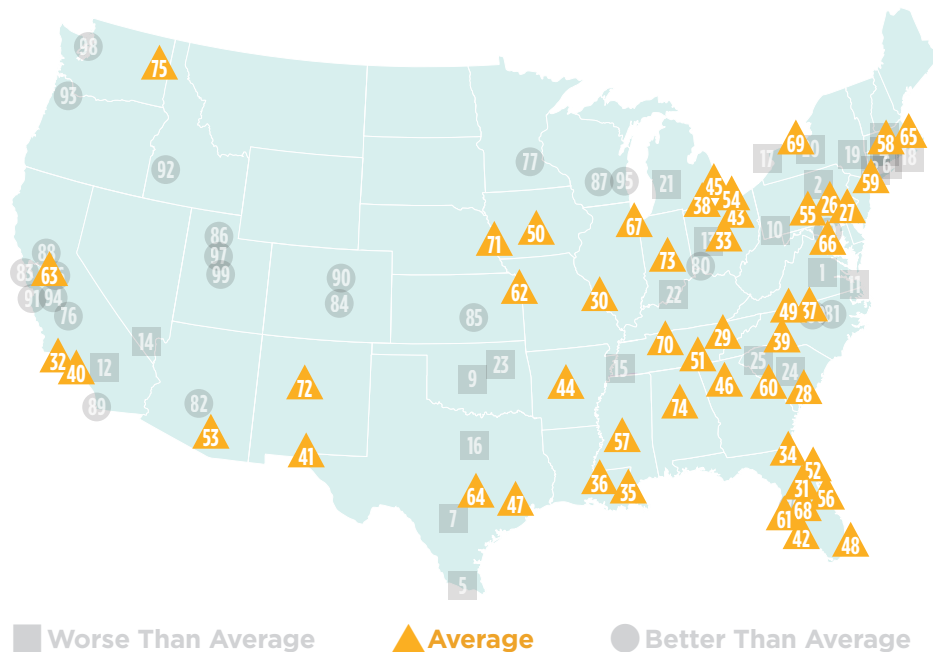
The Most Challenging Places to Live With Allergies



OVERALL RANKING

2020 Rank	Metropolitan Area	Total Score (Avg 65.50)	Overall
1	Richmond, VA	100.00	■
2	Scranton, PA	98.53	■
3	Springfield, MA	90.45	■
4	Hartford, CT	90.14	■
5	McAllen, TX	87.52	■
6	New Haven, CT	87.25	■
7	San Antonio, TX	87.21	■
8	Bridgeport, CT	86.68	■
9	Oklahoma City, OK	86.12	■
10	Pittsburgh, PA	85.11	■
11	Virginia Beach, VA	82.35	■
12	Riverside, CA	81.98	■
13	Dayton, OH	81.17	■
14	Las Vegas, NV	80.24	■
15	Memphis, TN	78.43	■
16	Dallas, TX	77.84	■
17	Buffalo, NY	77.73	■
18	Providence, RI	77.70	■
19	Albany, NY	77.31	■
20	Syracuse, NY	76.13	■
21	Grand Rapids, MI	75.64	■
22	Louisville, KY	75.29	■
23	Tulsa, OK	75.13	■
24	Columbia, SC	74.31	■
25	Greenville, SC	73.26	■

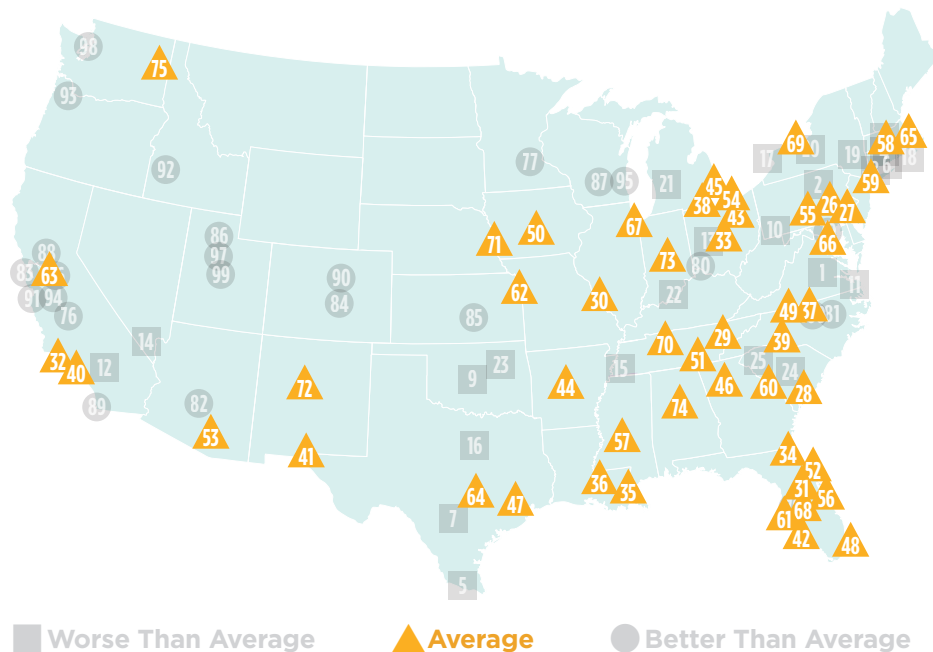
The Most Challenging Places to Live With Allergies



OVERALL RANKING

2020 Rank	Metropolitan Area	Total Score (Avg 65.50)	Overall
26	Allentown, PA	72.99	▲
27	Philadelphia, PA	71.21	▲
28	Charleston, SC	70.93	▲
29	Knoxville, TN	70.60	▲
30	St. Louis, MO	70.39	▲
31	Orlando, FL	69.08	▲
32	Oxnard, CA	68.90	▲
33	Columbus, OH	68.01	▲
34	Jacksonville, FL	67.75	▲
35	New Orleans, LA	67.19	▲
36	Baton Rouge, LA	66.53	▲
37	Greensboro, NC	66.31	▲
38	Toledo, OH	65.86	▲
39	Charlotte, NC	65.73	▲
40	Los Angeles, CA	65.69	▲
41	El Paso, TX	65.46	▲
42	Cape Coral, FL	65.24	▲
43	Akron, OH	65.17	▲
44	Little Rock, AR	65.13	▲
45	Detroit, MI	64.91	▲
46	Atlanta, GA	64.62	▲
47	Houston, TX	64.60	▲
48	Miami, FL	64.47	▲
49	Winston-Salem, NC	64.10	▲
50	Des Moines, IA	64.07	▲

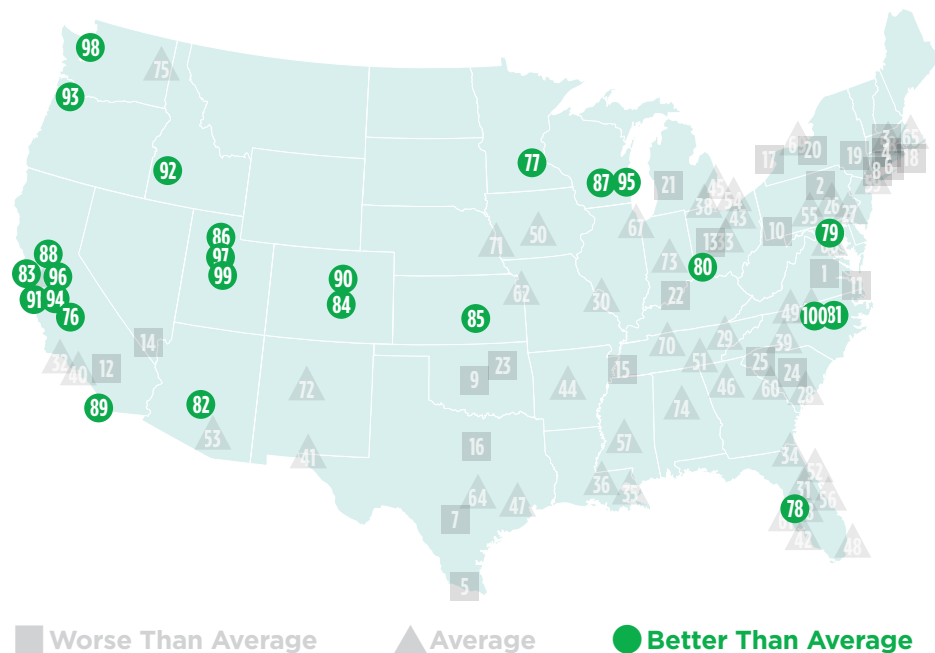
The Most Challenging Places to Live With Allergies



OVERALL RANKING

2020 Rank	Metropolitan Area	Total Score (Avg 65.50)	Overall
51	Chattanooga, TN	63.92	▲
52	Daytona Beach, FL	63.62	▲
53	Tucson, AZ	63.25	▲
54	Cleveland, OH	62.75	▲
55	Harrisburg, PA	62.50	▲
56	Palm Bay, FL	62.44	▲
57	Jackson, MS	62.11	▲
58	Worcester, MA	61.89	▲
59	New York, NY	61.53	▲
60	Augusta, GA	61.45	▲
61	Sarasota, FL	61.33	▲
62	Kansas City, MO	60.97	▲
63	Modesto, CA	60.95	▲
64	Austin, TX	60.83	▲
65	Boston, MA	60.48	▲
66	Washington, DC	60.14	▲
67	Chicago, IL	59.96	▲
68	Lakeland, FL	59.68	▲
69	Rochester, NY	59.54	▲
70	Nashville, TN	59.43	▲
71	Omaha, NE	59.19	▲
72	Albuquerque, NM	59.15	▲
73	Indianapolis, IN	58.88	▲
74	Birmingham, AL	58.80	▲
75	Spokane, WA	58.67	▲

The Most Challenging Places to Live With Allergies



OVERALL RANKING

2020 Rank	Metropolitan Area	Total Score (Avg 65.50)	Overall
76	Bakersfield, CA	58.56	●
77	Minneapolis, MN	57.73	●
78	Tampa, FL	57.56	●
79	Baltimore, MD	57.51	●
80	Cincinnati, OH	56.50	●
81	Raleigh, NC	56.26	●
82	Phoenix, AZ	55.92	●
83	San Francisco, CA	55.48	●
84	Colorado Springs, CO	55.28	●
85	Wichita, KS	54.27	●
86	Ogden, UT	52.91	●
87	Madison, WI	52.49	●
88	Sacramento, CA	52.19	●
89	San Diego, CA	51.95	●
90	Denver, CO	50.56	●
91	San Jose, CA	49.18	●
92	Boise, ID	48.44	●
93	Portland, OR	48.32	●
94	Fresno, CA	48.31	●
95	Milwaukee, WI	47.25	●
96	Stockton, CA	46.48	●
97	Salt Lake City, UT	44.93	●
98	Seattle, WA	44.83	●
99	Provo, UT	43.32	●
100	Durham, NC	41.46	●

Seasonal Ranking of Most Challenging Places to Live With Allergies

SPRING RANKING

2020 Spring Rank	Metropolitan Area
1	Richmond, VA
2	Scranton, PA
3	Springfield, MA
4	Hartford, CT
5	New Haven, CT
6	Bridgeport, CT
7	Providence, RI
8	Oklahoma City, OK
9	Virginia Beach, VA
10	Pittsburgh, PA
11	McAllen, TX
12	San Antonio, TX
13	Riverside, CA
14	Las Vegas, NV
15	Memphis, TN
16	Dayton, OH
17	Syracuse, NY
18	Albany, NY
19	Columbia, SC
20	Greenville, SC
21	Dallas, TX
22	Tulsa, OK
23	Allentown, PA
24	Charleston, SC
25	Louisville, KY

FALL RANKING

2020 Fall Rank	Metropolitan Area
1	Scranton, PA
2	Richmond, VA
3	McAllen, TX
4	San Antonio, TX
5	Oklahoma City, OK
6	Pittsburgh, PA
7	Springfield, MA
8	Hartford, CT
9	Dayton, OH
10	Riverside, CA
11	Buffalo, NY
12	New Haven, CT
13	Bridgeport, CT
14	Virginia Beach, VA
15	Dallas, TX
16	Las Vegas, NV
17	Grand Rapids, MI
18	Albany, NY
19	Memphis, TN
20	Louisville, KY
21	Tulsa, OK
22	Syracuse, NY
23	Columbia, SC
24	Allentown, PA
25	Knoxville, TN

Seasonal Ranking of Most Challenging Places to Live With Allergies

SPRING RANKING

2020 Spring Rank	Metropolitan Area
26	Buffalo, NY
27	Grand Rapids, MI
28	Philadelphia, PA
29	St. Louis, MO
30	Knoxville, TN
31	Orlando, FL
32	Greensboro, NC
33	Jacksonville, FL
34	Oxnard, CA
35	Worcester, MA
36	Little Rock, AR
37	Charlotte, NC
38	Columbus, OH
39	Atlanta, GA
40	Winston-Salem, NC
41	New Orleans, LA
42	Baton Rouge, LA
43	Cape Coral, FL
44	Boston, MA
45	Modesto, CA
46	Akron, OH
47	Chattanooga, TN
48	Los Angeles, CA
49	Tucson, AZ
50	New York, NY

FALL RANKING

2020 Fall Rank	Metropolitan Area
26	Greenville, SC
27	Oxnard, CA
28	Philadelphia, PA
29	St. Louis, MO
30	Providence, RI
31	Columbus, OH
32	Orlando, FL
33	Charleston, SC
34	Toledo, OH
35	El Paso, TX
36	New Orleans, LA
37	Detroit, MI
38	Jacksonville, FL
39	Baton Rouge, LA
40	Los Angeles, CA
41	Houston, TX
42	Akron, OH
43	Miami, FL
44	Des Moines, IA
45	Cape Coral, FL
46	Charlotte, NC
47	Greensboro, NC
48	Austin, TX
49	Chattanooga, TN
50	Daytona Beach, FL

Seasonal Ranking of Most Challenging Places to Live With Allergies

SPRING RANKING

2020 Spring Rank	Metropolitan Area
51	Daytona Beach, FL
52	Toledo, OH
53	Augusta, GA
54	Jackson, MS
55	Miami, FL
56	El Paso, TX
57	Des Moines, IA
58	Palm Bay, FL
59	Harrisburg, PA
60	Detroit, MI
61	Albuquerque, NM
62	Houston, TX
63	Cleveland, OH
64	Washington, DC
65	Sarasota, FL
66	Kansas City, MO
67	Birmingham, AL
68	Lakeland, FL
69	Nashville, TN
70	Spokane, WA
71	Baltimore, MD
72	Minneapolis, MN
73	Omaha, NE
74	Chicago, IL
75	Indianapolis, IN

FALL RANKING

2020 Fall Rank	Metropolitan Area
51	Cleveland, OH
52	Little Rock, AR
53	Atlanta, GA
54	Harrisburg, PA
55	Tucson, AZ
56	Palm Bay, FL
57	Winston-Salem, NC
58	Chicago, IL
59	Rochester, NY
60	Sarasota, FL
61	Jackson, MS
62	Kansas City, MO
63	Omaha, NE
64	Bakersfield, CA
65	Indianapolis, IN
66	Augusta, GA
67	Lakeland, FL
68	New York, NY
69	Nashville, TN
70	Spokane, WA
71	Washington, DC
72	Wichita, KS
73	Modesto, CA
74	Birmingham, AL
75	Tampa, FL

Seasonal Ranking of Most Challenging Places to Live With Allergies

SPRING RANKING

2020 Spring Rank	Metropolitan Area
76	San Francisco, CA
77	Raleigh, NC
78	Rochester, NY
79	Tampa, FL
80	Cincinnati, OH
81	Austin, TX
82	Bakersfield, CA
83	Phoenix, AZ
84	Sacramento, CA
85	Ogden, UT
86	Colorado Springs, CO
87	San Diego, CA
88	San Jose, CA
89	Madison, WI
90	Wichita, KS
91	Portland, OR
92	Denver, CO
93	Stockton, CA
94	Boise, ID
95	Seattle, WA
96	Fresno, CA
97	Salt Lake City, UT
98	Milwaukee, WI
99	Provo, UT
100	Durham, NC

FALL RANKING

2020 Fall Rank	Metropolitan Area
76	Minneapolis, MN
77	Worcester, MA
78	Baltimore, MD
79	Albuquerque, NM
80	Colorado Springs, CO
81	Boston, MA
82	Cincinnati, OH
83	Phoenix, AZ
84	Raleigh, NC
85	Madison, WI
86	San Francisco, CA
87	Denver, CO
88	Ogden, UT
89	San Diego, CA
90	Fresno, CA
91	Sacramento, CA
92	Milwaukee, WI
93	Boise, ID
94	San Jose, CA
95	Portland, OR
96	Stockton, CA
97	Salt Lake City, UT
98	Seattle, WA
99	Provo, UT
100	Durham, NC

METHODOLOGY

The 2020 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 four (4) individual factors analyzed for the 2020 rankings are: seasonal pollen scores (spring and fall), 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 (top 25), average (middle 50), and better than average (lower 25).

Seasonal (Spring and Fall) Pollen Scores

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 and fall allergy seasons (2019).

Medication Use

For each city, AAFA obtained over-the-counter sinus and allergy medication sales data per patient prevalence for the most recent calendar year (2019).

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
- IRI Medication Sales Database
- U.S. Department of Commerce, Bureau of the Census, Metropolitan and Micropolitan Statistical Areas

ACKNOWLEDGEMENTS

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