

## "The Most Challenging Places to Live with Spring Allergies"

Worse than Average ●  
 Average ◐  
 Better than Average ○

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 (Factors are not weighted equally)

### NATIONAL RANKINGS

| 2016 National Spring Rankings | Overall | Rank Last Year | Metropolitan Area | Total Score (Avg. 62.53) | Subtotal: Pollen Score* (Avg. 300 grains/cubic meter air daily) | Subtotal: Medicine Utilization per Patient (Avg. 0.98 Medications Per Est. Patient) | Subtotal: Board Certified Allergists per Patient (Avg. 0.91 Board Certified Allergists Per 10,000 Est. Patients) |
|-------------------------------|---------|----------------|-------------------|--------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| 1                             | ●       | 1              | Jackson, MS       | 100.00                   | ●                                                               | ●                                                                                   | ○                                                                                                                |
| 2                             | ●       | 4              | Memphis, TN       | 94.74                    | ●                                                               | ●                                                                                   | ◐                                                                                                                |
| 3                             | ●       | 20             | Syracuse, NY      | 87.97                    | ●                                                               | ◐                                                                                   | ◐                                                                                                                |
| 4                             | ●       | 2              | Louisville, KY    | 87.88                    | ◐                                                               | ●                                                                                   | ◐                                                                                                                |
| 5                             | ●       | 6              | McAllen, TX       | 87.31                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 6                             | ●       | 7              | Wichita, KS       | 86.82                    | ●                                                               | ◐                                                                                   | ◐                                                                                                                |
| 7                             | ●       | 3              | Oklahoma City, OK | 83.61                    | ●                                                               | ●                                                                                   | ◐                                                                                                                |
| 8                             | ●       | 9              | Providence, RI    | 81.54                    | ◐                                                               | ●                                                                                   | ●                                                                                                                |
| 9                             | ●       | 5              | Knoxville, TN     | 81.32                    | ◐                                                               | ●                                                                                   | ◐                                                                                                                |
| 10                            | ●       | 36             | Buffalo, NY       | 79.31                    | ●                                                               | ●                                                                                   | ◐                                                                                                                |
| 11                            | ●       | 8              | Dayton, OH        | 78.69                    | ●                                                               | ●                                                                                   | ◐                                                                                                                |
| 12                            | ●       | 11             | Little Rock, AR   | 77.31                    | ◐                                                               | ●                                                                                   | ○                                                                                                                |
| 13                            | ●       | 16             | Columbia, SC      | 76.77                    | ●                                                               | ●                                                                                   | ◐                                                                                                                |
| 14                            | ●       | 10             | Richmond, VA      | 75.35                    | ●                                                               | ◐                                                                                   | ◐                                                                                                                |
| 15                            | ●       | 13             | Baton Rouge, LA   | 74.99                    | ◐                                                               | ●                                                                                   | ◐                                                                                                                |
| 16                            | ●       | 12             | Tulsa, OK         | 74.71                    | ●                                                               | ◐                                                                                   | ◐                                                                                                                |
| 17                            | ●       | 15             | New Orleans, LA   | 74.12                    | ◐                                                               | ●                                                                                   | ◐                                                                                                                |
| 18                            | ●       | 32             | Toledo, OH        | 73.01                    | ◐                                                               | ●                                                                                   | ◐                                                                                                                |
| 19                            | ◐       | 24             | Winston-Salem, NC | 71.14                    | ◐                                                               | ●                                                                                   | ◐                                                                                                                |
| 20                            | ◐       | 26             | Springfield, MA   | 70.91                    | ◐                                                               | ◐                                                                                   | ◐                                                                                                                |
| 21                            | ◐       | 38             | Philadelphia, PA  | 70.39                    | ◐                                                               | ●                                                                                   | ◐                                                                                                                |
| 22                            | ◐       | 18             | San Antonio, TX   | 70.30                    | ●                                                               | ◐                                                                                   | ◐                                                                                                                |
| 23                            | ◐       | 14             | Chattanooga, TN   | 69.84                    | ◐                                                               | ●                                                                                   | ◐                                                                                                                |
| 24                            | ◐       | 35             | Tucson, AZ        | 69.73                    | ●                                                               | ◐                                                                                   | ◐                                                                                                                |
| 25                            | ◐       | 48             | Akron, OH         | 69.66                    | ◐                                                               | ◐                                                                                   | ◐                                                                                                                |
| 26                            | ◐       | 34             | Madison, WI       | 69.31                    | ◐                                                               | ●                                                                                   | ○                                                                                                                |
| 27                            | ◐       | 19             | Dallas, TX        | 69.29                    | ●                                                               | ◐                                                                                   | ◐                                                                                                                |
| 28                            | ◐       | 22             | Charleston, SC    | 69.21                    | ◐                                                               | ●                                                                                   | ◐                                                                                                                |
| 29                            | ◐       | 23             | Nashville, TN     | 69.20                    | ◐                                                               | ●                                                                                   | ◐                                                                                                                |
| 30                            | ◐       | 37             | Omaha, NE         | 69.04                    | ◐                                                               | ●                                                                                   | ◐                                                                                                                |
| 31                            | ◐       | 41             | New York, NY      | 68.65                    | ◐                                                               | ●                                                                                   | ●                                                                                                                |
| 32                            | ◐       | 21             | Greenville, SC    | 68.40                    | ◐                                                               | ●                                                                                   | ◐                                                                                                                |

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|-------------------------------|---------|----------------|--------------------|--------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| 33                            | ●       | 27             | Augusta, GA        | 68.37                    | ○                                                               | ●                                                                                   | ●                                                                                                                |
| 34                            | ●       | 56             | Youngstown, OH     | 67.89                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 35                            | ●       | 25             | St. Louis, MO      | 67.30                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 36                            | ●       | 58             | Fresno, CA         | 67.03                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 37                            | ●       | 31             | Charlotte, NC      | 66.81                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 38                            | ●       | 44             | Albuquerque, NM    | 66.77                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 39                            | ●       | 50             | Detroit, MI        | 66.68                    | ○                                                               | ●                                                                                   | ●                                                                                                                |
| 40                            | ●       | 33             | Greensboro, NC     | 66.50                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 41                            | ●       | 17             | Birmingham, AL     | 66.35                    | ○                                                               | ●                                                                                   | ●                                                                                                                |
| 42                            | ●       | 64             | Cleveland, OH      | 65.21                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 43                            | ●       | 46             | Grand Rapids, MI   | 65.01                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 44                            | ●       | 40             | Des Moines, IA     | 64.76                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 45                            | ●       | 43             | El Paso, TX        | 63.25                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 46                            | ●       | 59             | Allentown, PA      | 62.92                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 47                            | ●       | 42             | Cape Coral, FL     | 62.87                    | ●                                                               | ○                                                                                   | ●                                                                                                                |
| 48                            | ●       | 71             | Riverside, CA      | 62.77                    | ●                                                               | ○                                                                                   | ●                                                                                                                |
| 49                            | ●       | 51             | Albany, NY         | 62.61                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 50                            | ●       | 30             | Jacksonville, FL   | 62.55                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 51                            | ●       | n/a            | Durham, NC         | 62.51                    | ○                                                               | ●                                                                                   | ○                                                                                                                |
| 52                            | ●       | 29             | Virginia Beach, VA | 61.85                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 53                            | ●       | 45             | Las Vegas, NV      | 60.99                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 54                            | ●       | 57             | Pittsburgh, PA     | 60.78                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 55                            | ●       | 60             | Columbus, OH       | 59.67                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 56                            | ●       | 47             | Hartford, CT       | 59.63                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 57                            | ●       | 39             | New Haven, CT      | 59.35                    | ●                                                               | ●                                                                                   | ○                                                                                                                |
| 58                            | ●       | 52             | Austin, TX         | 59.29                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 59                            | ●       | 62             | Scranton, PA       | 58.80                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 60                            | ●       | 49             | Houston, TX        | 58.22                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 61                            | ●       | 54             | Rochester, NY      | 58.02                    | ○                                                               | ●                                                                                   | ○                                                                                                                |
| 62                            | ●       | 66             | Phoenix, AZ        | 57.91                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 63                            | ●       | 73             | Worcester, MA      | 57.17                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 64                            | ●       | 53             | Kansas City, MO    | 56.92                    | ○                                                               | ●                                                                                   | ●                                                                                                                |
| 65                            | ●       | 63             | Indianapolis, IN   | 56.11                    | ○                                                               | ●                                                                                   | ●                                                                                                                |
| 66                            | ●       | 75             | Baltimore, MD      | 56.00                    | ○                                                               | ●                                                                                   | ●                                                                                                                |
| 67                            | ●       | 79             | Los Angeles, CA    | 55.96                    | ●                                                               | ○                                                                                   | ●                                                                                                                |
| 68                            | ●       | 70             | Harrisburg, PA     | 55.80                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 69                            | ●       | 55             | Bridgeport, CT     | 55.72                    | ●                                                               | ○                                                                                   | ○                                                                                                                |
| 70                            | ●       | 61             | Atlanta, GA        | 55.46                    | ○                                                               | ●                                                                                   | ●                                                                                                                |
| 71                            | ●       | 74             | Minneapolis, MN    | 55.07                    | ●                                                               | ○                                                                                   | ●                                                                                                                |
| 72                            | ●       | 65             | Tampa, FL          | 54.82                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 73                            | ●       | 72             | Milwaukee, WI      | 54.52                    | ○                                                               | ●                                                                                   | ●                                                                                                                |
| 74                            | ●       | 67             | Cincinnati, OH     | 53.94                    | ○                                                               | ●                                                                                   | ●                                                                                                                |
| 75                            | ●       | 28             | Miami, FL          | 53.71                    | ●                                                               | ○                                                                                   | ●                                                                                                                |
| 76                            | ●       | 69             | Lakeland, FL       | 53.62                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 77                            | ●       | 78             | Boston, MA         | 53.49                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 78                            | ●       | 89             | Stockton, CA       | 53.16                    | ○                                                               | ●                                                                                   | ●                                                                                                                |
| 79                            | ○       | 81             | Bakersfield, CA    | 52.25                    | ●                                                               | ○                                                                                   | ●                                                                                                                |

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| 80                            | ○       | 92             | San Francisco, CA    | 51.81                    | ◐                                                               | ○                                                                                   | ◐                                                                                                                |
| 81                            | ○       | 76             | Chicago, IL          | 51.37                    | ◐                                                               | ○                                                                                   | ◐                                                                                                                |
| 82                            | ○       | 83             | Seattle, WA          | 51.30                    | ◐                                                               | ○                                                                                   | ◐                                                                                                                |
| 83                            | ○       | 91             | Spokane, WA          | 51.15                    | ◐                                                               | ○                                                                                   | ◐                                                                                                                |
| 84                            | ○       | 82             | Washington, DC       | 51.08                    | ○                                                               | ◐                                                                                   | ●                                                                                                                |
| 85                            | ○       | 95             | Oxnard, CA           | 50.33                    | ◐                                                               | ○                                                                                   | ◐                                                                                                                |
| 86                            | ○       | 90             | San Jose, CA         | 49.91                    | ◐                                                               | ○                                                                                   | ○                                                                                                                |
| 87                            | ○       | 68             | Orlando, FL          | 49.09                    | ○                                                               | ○                                                                                   | ●                                                                                                                |
| 88                            | ○       | 77             | Salt Lake City, UT   | 48.27                    | ◐                                                               | ○                                                                                   | ◐                                                                                                                |
| 89                            | ○       | 96             | Sacramento, CA       | 47.06                    | ○                                                               | ○                                                                                   | ◐                                                                                                                |
| 90                            | ○       | 80             | Ogden, UT            | 46.43                    | ◐                                                               | ○                                                                                   | ●                                                                                                                |
| 91                            | ○       | 86             | Sarasota, FL         | 46.30                    | ◐                                                               | ○                                                                                   | ◐                                                                                                                |
| 92                            | ○       | 93             | Portland, OR         | 45.98                    | ◐                                                               | ○                                                                                   | ●                                                                                                                |
| 93                            | ○       | 84             | Raleigh, NC          | 45.66                    | ○                                                               | ○                                                                                   | ◐                                                                                                                |
| 94                            | ○       | 87             | Boise, ID            | 45.30                    | ○                                                               | ○                                                                                   | ◐                                                                                                                |
| 95                            | ○       | 98             | Colorado Springs, CO | 44.43                    | ◐                                                               | ○                                                                                   | ◐                                                                                                                |
| 96                            | ○       | 88             | Palm Bay, FL         | 41.00                    | ○                                                               | ○                                                                                   | ◐                                                                                                                |
| 97                            | ○       | 100            | San Diego, CA        | 40.95                    | ○                                                               | ○                                                                                   | ○                                                                                                                |
| 98                            | ○       | 97             | Provo, UT            | 40.57                    | ◐                                                               | ○                                                                                   | ◐                                                                                                                |
| 99                            | ○       | 94             | Denver, CO           | 39.63                    | ◐                                                               | ○                                                                                   | ◐                                                                                                                |
| 100                           | ○       | 99             | Daytona Beach, FL    | 38.57                    | ○                                                               | ○                                                                                   | ◐                                                                                                                |

**2016 REGIONAL RANKINGS (Top-5)**

| 2016 Regional Spring Rankings<br>Midwest   | Overall | National Rank | Metropolitan Area | Total Score (Avg. 62.53) | Subtotal: Pollen Score* (Avg. 300 grains/cubic meter air daily) | Subtotal: Medicine Utilization per Patient (Avg. 0.98 Medications Per Est. Patient) | Subtotal: Board Certified Allergists per Patient (Avg. 0.91 Board Certified Allergists Per 10,000 Est. Patients) |
|--------------------------------------------|---------|---------------|-------------------|--------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| 1                                          | ●       | 6             | Wichita, KS       | 86.82                    | ●                                                               | ◐                                                                                   | ◐                                                                                                                |
| 2                                          | ●       | 11            | Dayton, OH        | 78.69                    | ●                                                               | ●                                                                                   | ◐                                                                                                                |
| 3                                          | ●       | 18            | Toledo, OH        | 73.01                    | ◐                                                               | ●                                                                                   | ◐                                                                                                                |
| 4                                          | ◐       | 25            | Akron, OH         | 69.66                    | ◐                                                               | ◐                                                                                   | ◐                                                                                                                |
| 5                                          | ◐       | 26            | Madison, WI       | 69.31                    | ◐                                                               | ●                                                                                   | ○                                                                                                                |
| 2016 Regional Spring Rankings<br>Northeast | Overall | National Rank | Metropolitan Area | Total Score (Avg. 62.53) | Subtotal: Pollen Score* (Avg. 300 grains/cubic meter air daily) | Subtotal: Medicine Utilization per Patient (Avg. 0.98 Medications Per Est. Patient) | Subtotal: Board Certified Allergists per Patient (Avg. 0.91 Board Certified Allergists Per 10,000 Est. Patients) |
| 1                                          | ●       | 3             | Syracuse, NY      | 87.97                    | ●                                                               | ◐                                                                                   | ◐                                                                                                                |
| 2                                          | ●       | 8             | Providence, RI    | 81.54                    | ◐                                                               | ●                                                                                   | ●                                                                                                                |
| 3                                          | ●       | 10            | Buffalo, NY       | 79.31                    | ●                                                               | ●                                                                                   | ◐                                                                                                                |
| 4                                          | ◐       | 20            | Springfield, MA   | 70.91                    | ◐                                                               | ◐                                                                                   | ◐                                                                                                                |
| 5                                          | ◐       | 21            | Philadelphia, PA  | 70.39                    | ◐                                                               | ●                                                                                   | ◐                                                                                                                |

| 2016 Regional Spring Rankings South | Overall | National Rank | Metropolitan Area | Total Score (Avg. 62.53) | Subtotal: Pollen Score* (Avg. 300 grains/cubic meter air daily) | Subtotal: Medicine Utilization per Patient (Avg. 0.98 Medications Per Est. Patient) | Subtotal: Board Certified Allergists per Patient (Avg. 0.91 Board Certified Allergists Per 10,000 Est. Patients) |
|-------------------------------------|---------|---------------|-------------------|--------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| 1                                   | ●       | 1             | Jackson, MS       | 100.00                   | ●                                                               | ●                                                                                   | ○                                                                                                                |
| 2                                   | ●       | 2             | Memphis, TN       | 94.74                    | ●                                                               | ●                                                                                   | ◐                                                                                                                |
| 3                                   | ●       | 4             | Louisville, KY    | 87.88                    | ◐                                                               | ●                                                                                   | ◐                                                                                                                |
| 4                                   | ●       | 5             | McAllen, TX       | 87.31                    | ●                                                               | ●                                                                                   | ●                                                                                                                |
| 5                                   | ●       | 7             | Oklahoma City, OK | 83.61                    | ●                                                               | ●                                                                                   | ◐                                                                                                                |
| 2016 Regional Spring Rankings West  | Overall | National Rank | Metropolitan Area | Total Score (Avg. 62.53) | Subtotal: Pollen Score* (Avg. 300 grains/cubic meter air daily) | Subtotal: Medicine Utilization per Patient (Avg. 0.98 Medications Per Est. Patient) | Subtotal: Board Certified Allergists per Patient (Avg. 0.91 Board Certified Allergists Per 10,000 Est. Patients) |
| 1                                   | ◐       | 24            | Tucson, AZ        | 69.73                    | ●                                                               | ◐                                                                                   | ◐                                                                                                                |
| 2                                   | ◐       | 36            | Fresno, CA        | 67.03                    | ◐                                                               | ●                                                                                   | ◐                                                                                                                |
| 3                                   | ◐       | 38            | Albuquerque, NM   | 66.77                    | ●                                                               | ◐                                                                                   | ◐                                                                                                                |
| 4                                   | ◐       | 48            | Riverside, CA     | 62.77                    | ◐                                                               | ○                                                                                   | ●                                                                                                                |
| 5                                   | ◐       | 53            | Las Vegas, NV     | 60.99                    | ◐                                                               | ◐                                                                                   | ●                                                                                                                |

2016 Rank - Rankings for the Allergy Capitals™ are based on analysis of data from factors including: Prevalence Data, Seasonal Pollen, Allergy Medicine Utilization per Patient, and the number of Board Certified Allergists per patient. Weights were applied to each factor and a composite final score was calculated for each Metropolitan Statistical Area (MSA).

Total Score - Final total scores and subtotals were rescaled assigning 100 points to the largest score and presenting all other scores as a percentage of the largest. The metro area with a total score of 100 points did not necessarily have the "most severe" score for all factors, but, rather, the highest total weighted final score overall.

Pollen Score\* - Quantitative data analysis of average recorded pollen/mold spore levels and predicted prevalence for certain types of pollens/molds over the most recent fall season and the duration of the peak season for the most allergenic pollen types; this score also takes into consideration local prevalence statistics for people affected by allergies to pollen. (Regarding daily pollen counts: previous studies have shown that daily pollen concentrations of 150+ grains per cubic meter of airborne allergenic pollen is a sufficiently high concentration which can trigger allergy symptoms in a large percentage of the allergic population.)

Medicine Utilization per Patient Score - Quantitative data analysis of recorded per capita utilization of recorded pharmacy data for prescription (RX) allergy medicines in each metro area during the most recent fall season. Also includes over-the-counter (OTC) and behind-the-counter (BTC) allergy medication sales at the pharmacy counter.

Board Certified Allergists per Patient Score - Quantitative data analysis for the most recent fall season of the number of Board Certified allergy and immunology specialists per 10,000 estimated patients.

**GOVERNMENTAL SOURCES:**

National Institute of Allergy and Infectious Diseases, National Institutes of Health, Allergic Rhinitis Information (2016)  
 U.S. Department of Commerce, Bureau of the Census, U.S. Census 2000, 2014 Updates  
 U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Air Resources Laboratory (ARL), Air Stagnation Climatology for the U.S. (2015)  
 U.S. Environmental Protection Agency, Status and Trends, Latest Findings on National Air Quality (2015)

**NON-GOVERNMENTAL SOURCES:**

Asthma and Allergy Foundation of America, "Asthma and Allergy Answers" (2015)  
 American Board of Medical Specialties, Specialist Database (2016)

**INDUSTRY SOURCES:**

IMS/SDI Pollen.com Database (2015)  
 IMS Medication Database (2015)

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