

2021 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 2021 Allergy Capitals™ report. This report uses both spring and fall allergy data to rank the 100 largest cities in the continental United States.

Both spring and fall pollen has increasingly gotten worse every year with longer, warmer growing seasons caused by climate change. These seasons produce stronger pollen at higher quantities.

Since 2003, AAFA has produced this report to help people recognize, prevent, and manage allergy symptoms. The report also helps communities see 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. We also hope to provide helpful information to improve the quality of life for people who experience them. 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 ideas that improve and protect quality of life and treatment options for people 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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THE IMPACT OF COVID-19

In 2020, fewer people were affected by pollen allergies. When the year began, experts expected weather and pollen to have significant effects. By the spring, COVID-19 restrictions kept many people inside more. This limited their exposure to pollen. Children felt the least impact from seasonal allergies due to closed schools and less time spent outdoors.



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 have 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 people in the United States. People with allergies need to know what allergens trigger their symptoms, find ways to reduce their exposure to those allergens, and have access to the right treatments for their needs.¹

Allergies are a major public health concern. More than 50 million Americans suffer from allergies every year.¹ 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. See the "Managing Your Contact With Pollen" section on page 5 for tips on ways to manage your seasonal allergy symptoms.

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 pollen from trees, grasses, or weeds causes allergy symptoms. About 15% of children have seasonal allergic rhinitis or respiratory allergy.² Allergic rhinitis can be seasonal or year-round. Symptoms of seasonal allergic rhinitis usually occur in spring, summer, and/or fall. Allergies can worsen asthma as well.

About Seasonal Pollen Allergies

People with allergic rhinitis may have symptoms that get worse during one season over another. Why? Different types of pollen allergens peak at different times of the year. In the spring, tree pollen is more common. In the fall, weed pollen peaks.

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 pollen allergies, ragweed pollen is the worst offender. Ragweed allergy is the most common weed pollen allergy. One ragweed 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 pollen allergy symptoms in the fall:

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



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 or other hair covering when outdoors.
- Take a shower and wash your hair before going to bed (if your hair was uncovered outside).
- 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.

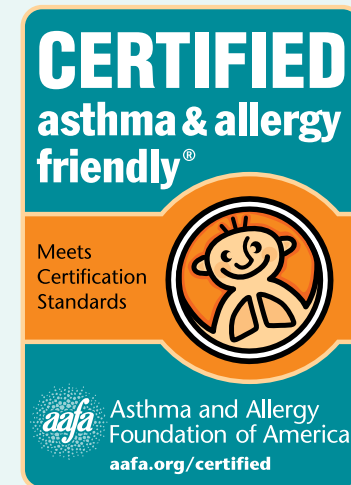
There are also options available to prevent or treat allergy symptoms. Some of these treatments work best if taken before allergy season begins:

- 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 reduce allergens in your 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.

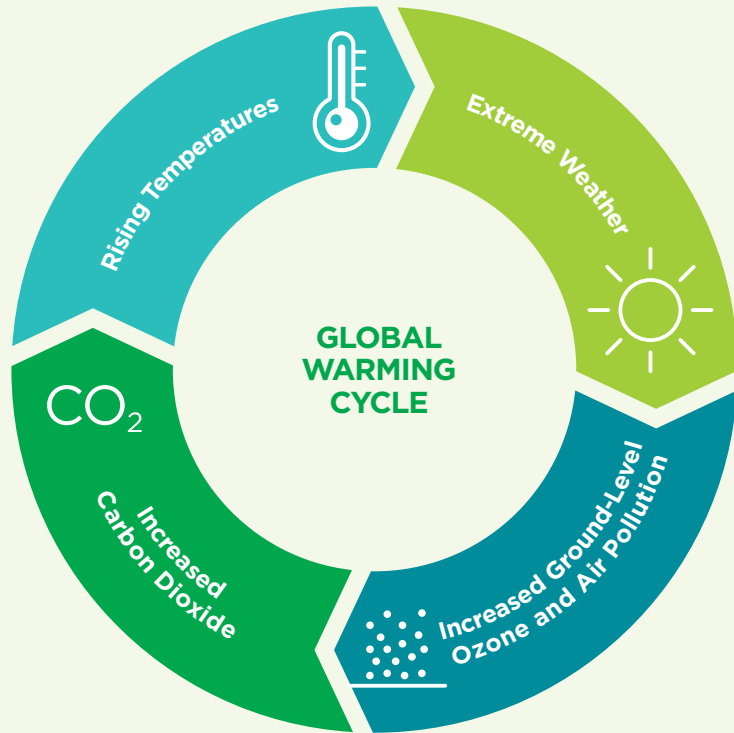


Spotlight: Climate Change and Allergies

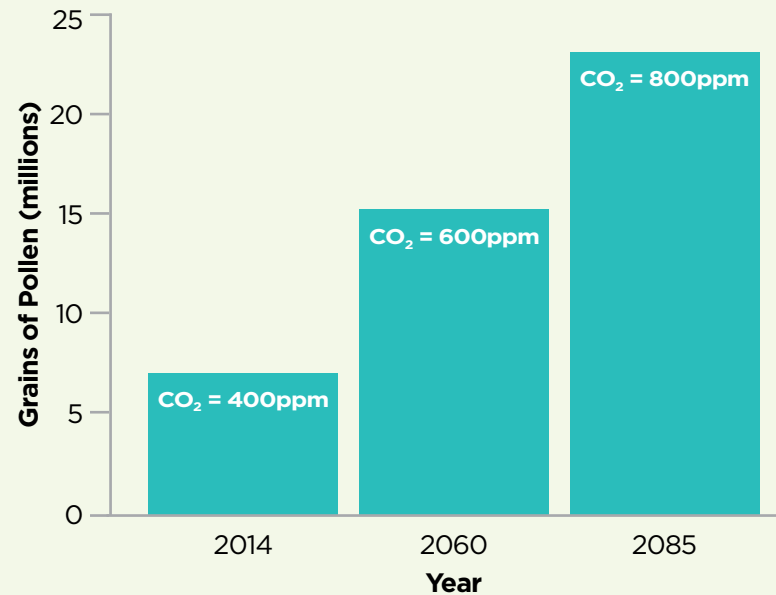
The impact of climate change has become a dangerous cycle. As global temperatures rise, extreme weather events become worse. Weather changes – such as heat waves and droughts – can lead to stagnant air (a lack of air flow). When the air doesn't move, pollutants react together in the heat and sun. This increases ground-level ozone.³

Ground-level ozone is a major part of urban smog. More air pollution and smog cause higher levels of carbon dioxide (CO₂). This results in warmer temperatures. And the cycle continues.

Rising CO₂ levels in the air increase pollen. This can trigger asthma and allergy symptoms. Researchers have studied the relationship between CO₂ and pollen. A 2014 study looked at the relationship between CO₂ levels and Timothy grass pollen. They tested CO₂ at 400 parts per million (ppm), which is near current levels. Then they tested CO₂ at 800 ppm, where levels are expected to be at the end of the century if trends continue. In this study, grass pollen tripled when CO₂ levels doubled.⁴



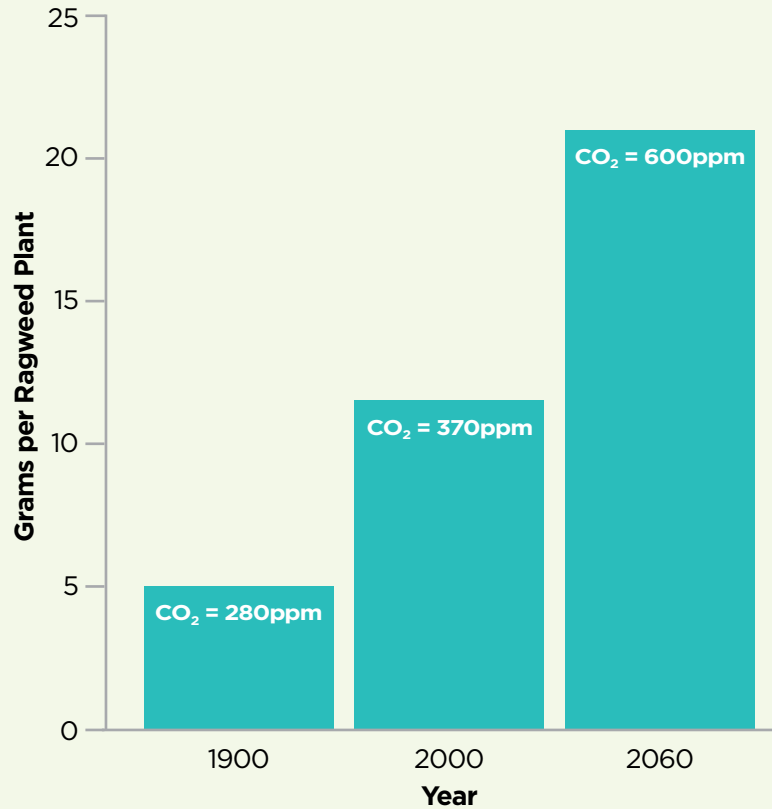
CO₂ IMPACT ON GRASS POLLEN PRODUCTION



Source: Albertine et al., Projected Carbon Dioxide to Increase Grass Pollen and Allergen Exposure Despite Higher Ozone Levels (2014)

Another study showed that rising CO₂ levels also lead to increased ragweed pollen. Researchers project if trends continue, the levels of ragweed pollen will double between the years 2000-2060.⁵

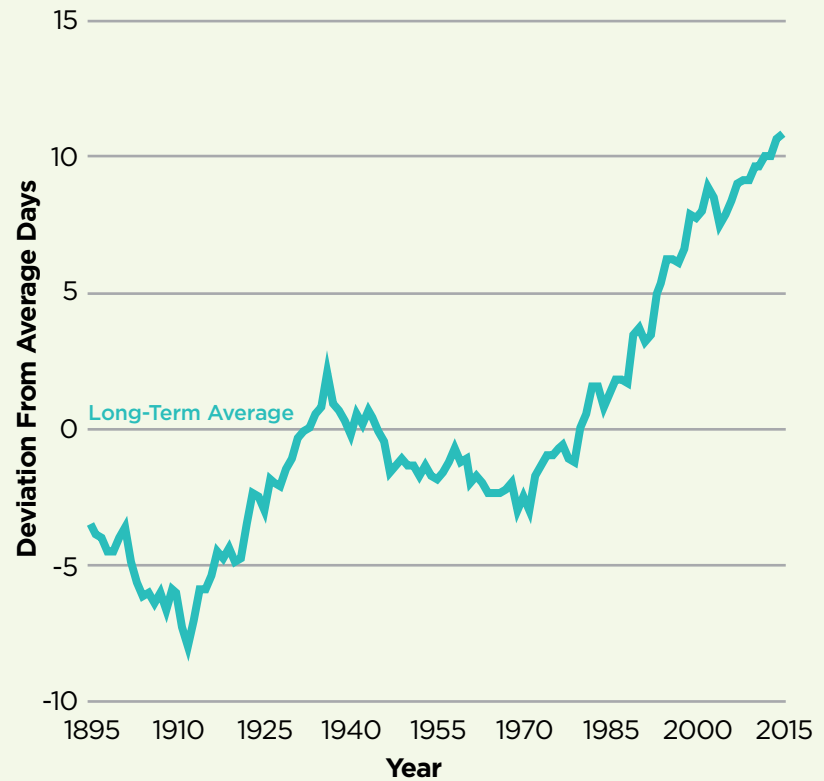
CO₂ IMPACT ON RAGWEED POLLEN PRODUCTION



Source: Ziska & Caulfield, *Rising CO₂ And Pollen Production of Common Ragweed (Ambrosia Artemisiifolia L.), A Known Allergy-Inducing Species: Implications For Public Health.* (2000)

Rising CO₂ levels also contribute to rising temperatures, leading to longer growing seasons. The length of the growing season refers to the number of days when plant growth takes place.

LONGER U.S. GROWING SEASON (MORE DAYS ABOVE FREEZING)



Source: Kunkel, 2016 update to data originally published in: Kunkel, K.E., D.R. Easterling, K. Hubbard, and K. Redmond. 2004. *Temporal variations in frost-free season in the United States: 1895-2000.* (2016)

Climate change in the top 20 Allergy Capitals of 2021 has increased average temperatures since 1970.

| 2021 Rank | Metropolitan Area | Average spring temperature (°F) increase since 1970 | Average fall temperature (°F) increase since 1970 |
|-----------|--------------------|---|---|
| 1 | Scranton, PA | 2.5 | 2.6 |
| 2 | Richmond, VA | 2.1 | 1.9 |
| 3 | Wichita, KS | 3.0 | 2.8 |
| 4 | McAllen, TX | 3.6 | 3.7 |
| 5 | Pittsburgh, PA | 2.8 | 2.0 |
| 6 | Hartford, CT | 0.7 | 2.3 |
| 7 | Springfield, MA | 0.7 | 2.3 |
| 8 | New Haven, CT | 1.8 | 1.9 |
| 9 | Oklahoma City, OK | 1.9 | 1.6 |
| 10 | Bridgeport, CT | 1.8 | 1.9 |
| 11 | Albany, NY | 2.4 | 3.0 |
| 12 | Virginia Beach, VA | 2.3 | 1.1 |
| 13 | Buffalo, NY | 1.4 | 2.3 |
| 14 | San Antonio, TX | 2.4 | 2.7 |
| 15 | Dayton, OH | 2.0 | 1.5 |
| 16 | Riverside, CA | 3.3 | 5.4 |
| 17 | Las Vegas, NV | 6.5 | 6.0 |
| 18 | Memphis, TN | 1.6 | 1.8 |
| 19 | Dallas, TX | 2.9 | 3.0 |
| 20 | Louisville, KY | 3.7 | 2.7 |

Source: Climate Central temperature data, February 2021

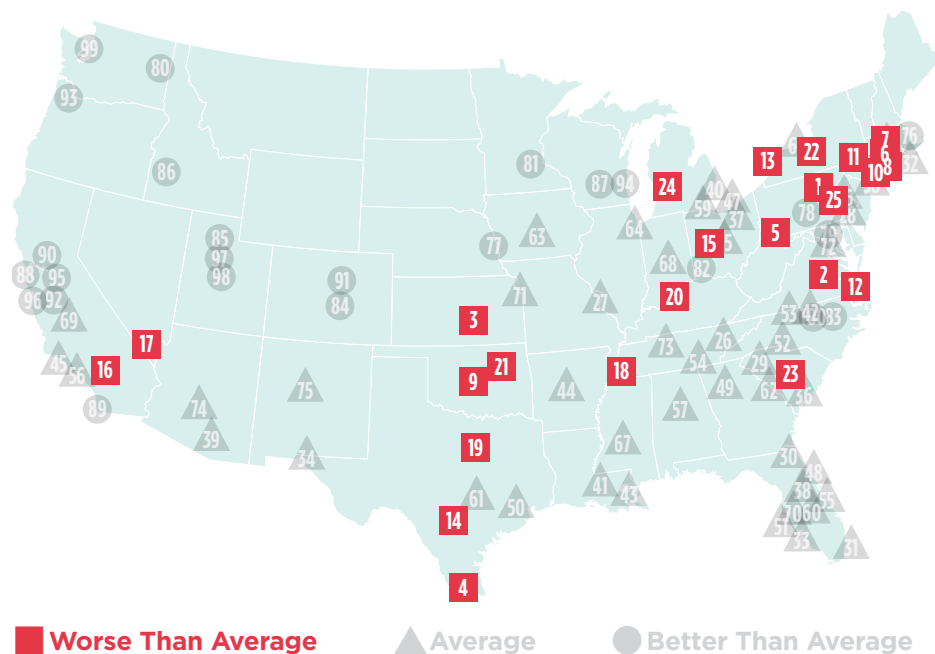
The last freeze in many cities is occurring earlier in the year. This last freeze signals the beginning of spring. An earlier start to spring gives plants more time to grow. Spring across the U.S. is 2 degrees warmer on average.⁶ Fall for much of the U.S. is also getting warmer, making the summer growing season last longer. Most analyzed U.S. cities have fall seasons that are 2.5 degrees warmer on average.⁷

More than 24 million people already have seasonal allergic rhinitis, and pollen allergies are a major cause.⁸ If we don't slow down the cycle, pollen production will only get worse. And with warmer, longer seasons, allergy-causing plants can move into new areas. This can expose people to new allergens they have not experienced before.

So how do we fix the issue of climate change and its impact on people with allergies? Laws created to reduce emissions and air pollution can make a difference. We need policy makers to act now to slow down climate change and reduce its impact on human health. Join AAFA at aafa.org/join and follow our blog for Advocacy Action Alerts. We offer simple ways to contact your representatives to encourage them to act on issues important to the health of people with allergies and asthma.



2021 Allergy Capitals™

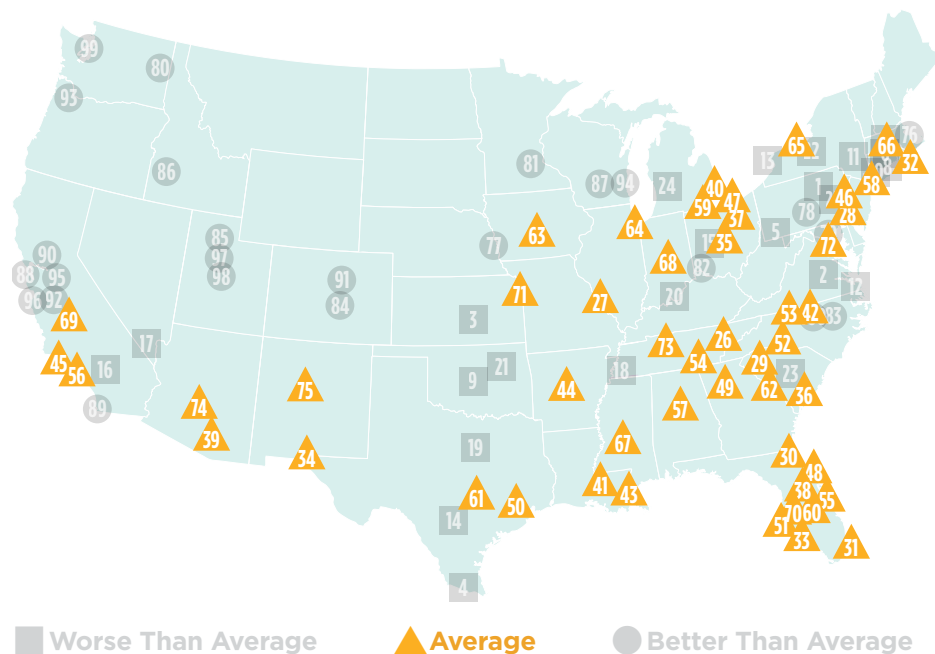


OVERALL RANKING

| 2021 Rank | Metropolitan Area | Total Score (Avg 64.43) | Overall |
|-----------|--------------------|----------------------------|---------|
| 1 | Scranton, PA | 100.00 | ■ |
| 2 | Richmond, VA | 98.78 | ■ |
| 3 | Wichita, KS* | 89.09 | ■ |
| 4 | McAllen, TX | 85.76 | ■ |
| 5 | Pittsburgh, PA | 85.63 | ■ |
| 6 | Hartford, CT | 85.37 | ■ |
| 7 | Springfield, MA | 84.28 | ■ |
| 8 | New Haven, CT | 83.61 | ■ |
| 9 | Oklahoma City, OK | 83.18 | ■ |
| 10 | Bridgeport, CT | 82.90 | ■ |
| 11 | Albany, NY | 82.42 | ■ |
| 12 | Virginia Beach, VA | 82.22 | ■ |
| 13 | Buffalo, NY | 82.19 | ■ |
| 14 | San Antonio, TX | 81.00 | ■ |
| 15 | Dayton, OH | 79.34 | ■ |
| 16 | Riverside, CA | 78.67 | ■ |
| 17 | Las Vegas, NV | 77.58 | ■ |
| 18 | Memphis, TN | 75.38 | ■ |
| 19 | Dallas, TX | 74.70 | ■ |
| 20 | Louisville, KY | 74.52 | ■ |
| 21 | Tulsa, OK | 73.49 | ■ |
| 22 | Syracuse, NY | 73.32 | ■ |
| 23 | Columbia, SC | 72.67 | ■ |
| 24 | Grand Rapids, MI | 71.63 | ■ |
| 25 | Allentown, PA | 71.29 | ■ |

*New methodology by IRI has allowed for more coverage of OTC sales data in certain marketplaces, which has impacted the ranking of Wichita, KS

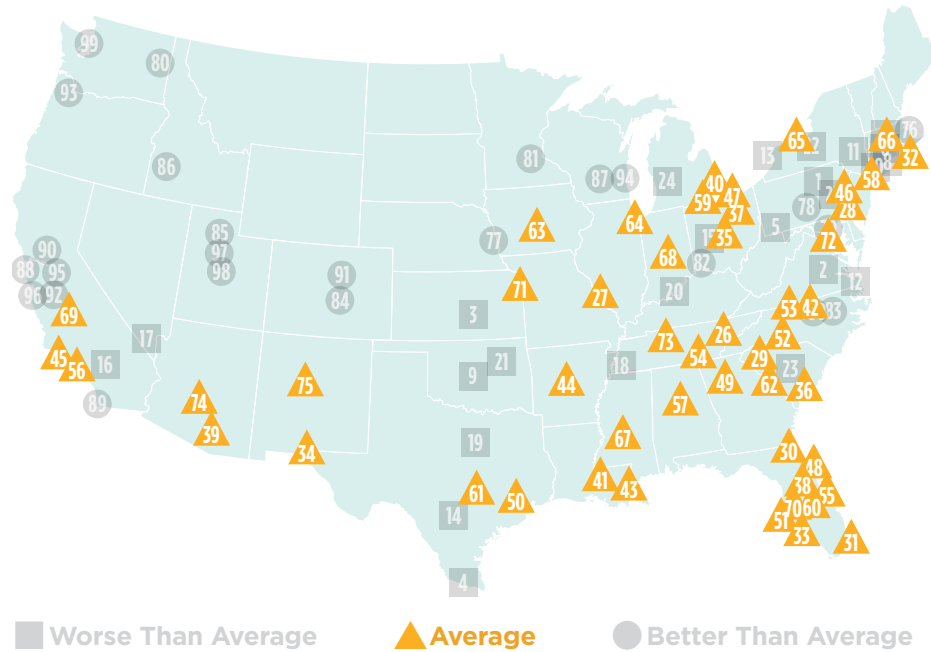
2021 Allergy Capitals™



OVERALL RANKING

| 2021 Rank | Metropolitan Area | Total Score (Avg 64.43) | Overall |
|-----------|-------------------|----------------------------|---------|
| 26 | Knoxville, TN | 70.81 | ▲ |
| 27 | St. Louis, MO | 70.21 | ▲ |
| 28 | Philadelphia, PA | 69.14 | ▲ |
| 29 | Greenville, SC | 68.80 | ▲ |
| 30 | Jacksonville, FL | 68.11 | ▲ |
| 31 | Miami, FL | 68.07 | ▲ |
| 32 | Providence, RI | 67.57 | ▲ |
| 33 | Cape Coral, FL | 67.09 | ▲ |
| 34 | El Paso, TX | 66.91 | ▲ |
| 35 | Columbus, OH | 66.49 | ▲ |
| 36 | Charleston, SC | 66.43 | ▲ |
| 37 | Akron, OH | 65.82 | ▲ |
| 38 | Orlando, FL | 65.79 | ▲ |
| 39 | Tucson, AZ | 65.64 | ▲ |
| 40 | Detroit, MI | 64.79 | ▲ |
| 41 | Baton Rouge, LA | 64.77 | ▲ |
| 42 | Greensboro, NC | 64.47 | ▲ |
| 43 | New Orleans, LA | 64.26 | ▲ |
| 44 | Little Rock, AR | 64.10 | ▲ |
| 45 | Oxnard, CA | 63.93 | ▲ |
| 46 | Poughkeepsie, NY | 63.89 | ▲ |
| 47 | Cleveland, OH | 63.71 | ▲ |
| 48 | Daytona Beach, FL | 63.67 | ▲ |
| 49 | Atlanta, GA | 62.80 | ▲ |
| 50 | Houston, TX | 62.74 | ▲ |

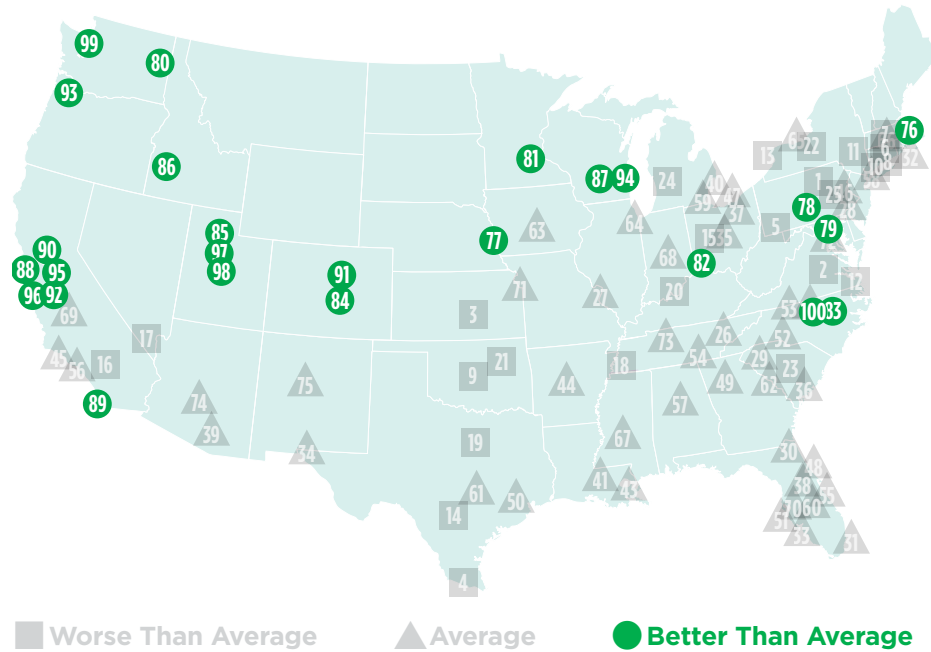
2021 Allergy Capitals™



OVERALL RANKING

| 2021 Rank | Metropolitan Area | Total Score (Avg 64.43) | Overall |
|-----------|-------------------|----------------------------|---------|
| 51 | Sarasota, FL | 62.72 | ▲ |
| 52 | Charlotte, NC | 62.70 | ▲ |
| 53 | Winston-Salem, NC | 62.54 | ▲ |
| 54 | Chattanooga, TN | 62.28 | ▲ |
| 55 | Palm Bay, FL | 62.16 | ▲ |
| 56 | Los Angeles, CA | 62.06 | ▲ |
| 57 | Birmingham, AL | 61.91 | ▲ |
| 58 | New York, NY | 61.87 | ▲ |
| 59 | Toledo, OH | 61.68 | ▲ |
| 60 | Lakeland, FL | 61.05 | ▲ |
| 61 | Austin, TX | 60.95 | ▲ |
| 62 | Augusta, GA | 60.54 | ▲ |
| 63 | Des Moines, IA | 60.40 | ▲ |
| 64 | Chicago, IL | 60.26 | ▲ |
| 65 | Rochester, NY | 59.67 | ▲ |
| 66 | Worcester, MA | 59.59 | ▲ |
| 67 | Jackson, MS | 59.51 | ▲ |
| 68 | Indianapolis, IN | 59.16 | ▲ |
| 69 | Bakersfield, CA | 58.56 | ▲ |
| 70 | Tampa, FL | 58.45 | ▲ |
| 71 | Kansas City, MO | 58.35 | ▲ |
| 72 | Washington, DC | 57.79 | ▲ |
| 73 | Nashville, TN | 57.61 | ▲ |
| 74 | Phoenix, AZ | 57.54 | ▲ |
| 75 | Albuquerque, NM | 57.52 | ▲ |

2021 Allergy Capitals™



OVERALL RANKING

| 2021 Rank | Metropolitan Area | Total Score (Avg 64.43) | Overall |
|-----------|----------------------|----------------------------|---------|
| 76 | Boston, MA | 57.48 | ● |
| 77 | Omaha, NE | 57.34 | ● |
| 78 | Harrisburg, PA | 57.02 | ● |
| 79 | Baltimore, MD | 56.91 | ● |
| 80 | Spokane, WA | 55.98 | ● |
| 81 | Minneapolis, MN | 55.85 | ● |
| 82 | Cincinnati, OH | 54.63 | ● |
| 83 | Raleigh, NC | 54.32 | ● |
| 84 | Colorado Springs, CO | 54.14 | ● |
| 85 | Ogden, UT | 52.54 | ● |
| 86 | Boise, ID | 50.94 | ● |
| 87 | Madison, WI | 50.64 | ● |
| 88 | San Francisco, CA | 50.31 | ● |
| 89 | San Diego, CA | 50.02 | ● |
| 90 | Sacramento, CA | 49.82 | ● |
| 91 | Denver, CO | 49.22 | ● |
| 92 | Fresno, CA | 48.29 | ● |
| 93 | Portland, OR | 47.81 | ● |
| 94 | Milwaukee, WI | 46.91 | ● |
| 95 | Stockton, CA | 45.17 | ● |
| 96 | San Jose, CA | 45.12 | ● |
| 97 | Salt Lake City, UT | 44.95 | ● |
| 98 | Provo, UT | 42.61 | ● |
| 99 | Seattle, WA | 41.95 | ● |
| 100 | Durham, NC | 37.56 | ● |

Seasonal Ranking of Most Challenging Places to Live With Allergies

SPRING RANKING

| 2021 Spring Rank | Metropolitan Area |
|------------------|--------------------|
| 1 | Richmond, VA |
| 2 | Scranton, PA |
| 3 | Wichita, KS* |
| 4 | Virginia Beach, VA |
| 5 | Pittsburgh, PA |
| 6 | Hartford, CT |
| 7 | Oklahoma City, OK |
| 8 | McAllen, TX |
| 9 | Las Vegas, NV |
| 10 | Springfield, MA |
| 11 | New Haven, CT |
| 12 | Bridgeport, CT |
| 13 | Riverside, CA |
| 14 | Albany, NY |
| 15 | Dayton, OH |
| 16 | San Antonio, TX |
| 17 | Buffalo, NY |
| 18 | Columbia, SC |
| 19 | Dallas, TX |
| 20 | Memphis, TN |
| 21 | Louisville, KY |
| 22 | Tulsa, OK |
| 23 | Knoxville, TN |
| 24 | Allentown, PA |
| 25 | Greenville, SC |

FALL RANKING

| 2021 Fall Rank | Metropolitan Area |
|----------------|--------------------|
| 1 | Scranton, PA |
| 2 | Richmond, VA |
| 3 | Wichita, KS* |
| 4 | McAllen, TX |
| 5 | Pittsburgh, PA |
| 6 | Buffalo, NY |
| 7 | Hartford, CT |
| 8 | Springfield, MA |
| 9 | New Haven, CT |
| 10 | Albany, NY |
| 11 | Bridgeport, CT |
| 12 | San Antonio, TX |
| 13 | Oklahoma City, OK |
| 14 | Dayton, OH |
| 15 | Virginia Beach, VA |
| 16 | Riverside, CA |
| 17 | Syracuse, NY |
| 18 | Memphis, TN |
| 19 | Grand Rapids, MI |
| 20 | Louisville, KY |
| 21 | Dallas, TX |
| 22 | Tulsa, OK |
| 23 | Las Vegas, NV |
| 24 | St. Louis, MO |
| 25 | Miami, FL |

**New methodology by IRI has allowed for more coverage of OTC sales data in certain marketplaces, which has impacted the ranking of Wichita, KS*

Seasonal Ranking of Most Challenging Places to Live With Allergies

SPRING RANKING

| 2021 Spring Rank | Metropolitan Area |
|------------------|-------------------|
| 26 | Syracuse, NY |
| 27 | Philadelphia, PA |
| 28 | Jacksonville, FL |
| 29 | Providence, RI |
| 30 | Tucson, AZ |
| 31 | St. Louis, MO |
| 32 | Charleston, SC |
| 33 | Cape Coral, FL |
| 34 | Grand Rapids, MI |
| 35 | Greensboro, NC |
| 36 | El Paso, TX |
| 37 | Poughkeepsie, NY |
| 38 | Orlando, FL |
| 39 | Miami, FL |
| 40 | Winston-Salem, NC |
| 41 | Charlotte, NC |
| 42 | Atlanta, GA |
| 43 | Oxnard, CA |
| 44 | Little Rock, AR |
| 45 | New York, NY |
| 46 | Columbus, OH |
| 47 | Akron, OH |
| 48 | Baton Rouge, LA |
| 49 | Daytona Beach, FL |
| 50 | Detroit, MI |

FALL RANKING

| 2021 Fall Rank | Metropolitan Area |
|----------------|-------------------|
| 26 | Allentown, PA |
| 27 | Columbia, SC |
| 28 | Knoxville, TN |
| 29 | Columbus, OH |
| 30 | Philadelphia, PA |
| 31 | Akron, OH |
| 32 | El Paso, TX |
| 33 | Jacksonville, FL |
| 34 | Greenville, SC |
| 35 | Cape Coral, FL |
| 36 | Providence, RI |
| 37 | Detroit, MI |
| 38 | Orlando, FL |
| 39 | Baton Rouge, LA |
| 40 | Cleveland, OH |
| 41 | New Orleans, LA |
| 42 | Charleston, SC |
| 43 | Little Rock, AR |
| 44 | Daytona Beach, FL |
| 45 | Des Moines, IA |
| 46 | Toledo, OH |
| 47 | Rochester, NY |
| 48 | Oxnard, CA |
| 49 | Tucson, AZ |
| 50 | Austin, TX |

Seasonal Ranking of Most Challenging Places to Live With Allergies

SPRING RANKING

| 2021 Spring Rank | Metropolitan Area |
|------------------|-------------------|
| 51 | Houston, TX |
| 52 | New Orleans, LA |
| 53 | Sarasota, FL |
| 54 | Augusta, GA |
| 55 | Birmingham, AL |
| 56 | Los Angeles, CA |
| 57 | Chattanooga, TN |
| 58 | Palm Bay, FL |
| 59 | Cleveland, OH |
| 60 | Lakeland, FL |
| 61 | Washington, DC |
| 62 | Worcester, MA |
| 63 | Jackson, MS |
| 64 | Toledo, OH |
| 65 | Bakersfield, CA |
| 66 | Austin, TX |
| 67 | Albuquerque, NM |
| 68 | Phoenix, AZ |
| 69 | Tampa, FL |
| 70 | Baltimore, MD |
| 71 | Chicago, IL |
| 72 | Boston, MA |
| 73 | Nashville, TN |
| 74 | Harrisburg, PA |
| 75 | Des Moines, IA |

FALL RANKING

| 2021 Fall Rank | Metropolitan Area |
|----------------|-------------------|
| 51 | Palm Bay, FL |
| 52 | Sarasota, FL |
| 53 | Chattanooga, TN |
| 54 | Chicago, IL |
| 55 | Houston, TX |
| 56 | Greensboro, NC |
| 57 | Los Angeles, CA |
| 58 | Indianapolis, IN |
| 59 | Poughkeepsie, NY |
| 60 | Birmingham, AL |
| 61 | Atlanta, GA |
| 62 | Lakeland, FL |
| 63 | Charlotte, NC |
| 64 | Winston-Salem, NC |
| 65 | Kansas City, MO |
| 66 | New York, NY |
| 67 | Jackson, MS |
| 68 | Worcester, MA |
| 69 | Augusta, GA |
| 70 | Omaha, NE |
| 71 | Tampa, FL |
| 72 | Bakersfield, CA |
| 73 | Nashville, TN |
| 74 | Boston, MA |
| 75 | Harrisburg, PA |

Seasonal Ranking of Most Challenging Places to Live With Allergies

SPRING RANKING

| 2021 Spring Rank | Metropolitan Area |
|------------------|----------------------|
| 76 | Indianapolis, IN |
| 77 | Kansas City, MO |
| 78 | Spokane, WA |
| 79 | Omaha, NE |
| 80 | Raleigh, NC |
| 81 | Rochester, NY |
| 82 | Colorado Springs, CO |
| 83 | Minneapolis, MN |
| 84 | Ogden, UT |
| 85 | Sacramento, CA |
| 86 | San Francisco, CA |
| 87 | Cincinnati, OH |
| 88 | Boise, ID |
| 89 | Portland, OR |
| 90 | San Diego, CA |
| 91 | Denver, CO |
| 92 | Stockton, CA |
| 93 | Fresno, CA |
| 94 | Madison, WI |
| 95 | San Jose, CA |
| 96 | Salt Lake City, UT |
| 97 | Milwaukee, WI |
| 98 | Seattle, WA |
| 99 | Provo, UT |
| 100 | Durham, NC |

FALL RANKING

| 2021 Fall Rank | Metropolitan Area |
|----------------|----------------------|
| 76 | Minneapolis, MN |
| 77 | Phoenix, AZ |
| 78 | Albuquerque, NM |
| 79 | Cincinnati, OH |
| 80 | Baltimore, MD |
| 81 | Spokane, WA |
| 82 | Washington, DC |
| 83 | Colorado Springs, CO |
| 84 | Raleigh, NC |
| 85 | Madison, WI |
| 86 | Ogden, UT |
| 87 | San Diego, CA |
| 88 | Boise, ID |
| 89 | Milwaukee, WI |
| 90 | Denver, CO |
| 91 | Fresno, CA |
| 92 | San Francisco, CA |
| 93 | Sacramento, CA |
| 94 | Portland, OR |
| 95 | Salt Lake City, UT |
| 96 | San Jose, CA |
| 97 | Provo, UT |
| 98 | Stockton, CA |
| 99 | Seattle, WA |
| 100 | Durham, NC |

METHODOLOGY

The 2021 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 2021 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 (2020).

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 (2020).

Number of Allergy Specialists

For each city, AAFA obtained the number of board-certified allergists/immunologists per patient prevalence. The most recent publicly available data are from American Board of Medical Specialties (2019).

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

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