**ARIZONA’S OZONE SEASON IS HERE!**

It’s that time of year again, when you need to be air aware. With the increasing day lengths and rising temperatures, we are well into Arizona’s ozone pollution season. Ground level ozone forms when chemical reactions between nitrogen oxides (NOx) and volatile organic compounds (VOCs) react in the presence of heat and sun. These chemicals are emitted from industrial processes, vehicle exhaust, refineries, household chemicals, motorized equipment, electric utilities, and gasoline vapors from refueling.

Ground-level ozone poses major human health hazards, affecting the respiratory and cardiovascular systems. Exposure to ozone has been linked to coughing, chest pain, lung and throat irritation, and shortness of breath.

Older adults, people with asthma or other lung diseases, children, and those who work or recreate outdoors are at higher risk for dangerous exposure.

The U.S. EPA regulates pollutants that cause the formation of ozone. Arizona has multiple areas in the Phoenix metro that are designated nonattainment areas for ground-level ozone. Keep reading on page two to find out about air pollution advisories in Arizona.

Ozone Season in Arizona occurs from the beginning of April through the end of October. The occurrence of high ozone pollution days depends on the regional weather including high pressure systems that can cause air stagnation, hot temperatures, longer days, and no rain or wind.
**AIR POLLUTION ADVISORIES**

**Real-time air quality conditions** are monitored and reported nation-wide by air quality management districts as well as states and the US EPA. The data collected by air quality agencies is reported as an Air Quality Index (AQI) to determine if a pollutant’s local levels pose a risk to public health. The Arizona Department of Environmental Quality issues the advanced notices: High Pollution Advisory (HPA) or a High Pollution Watch (HPW) when the air pollutants of ground-level ozone or particulate matter (PM) are forecast to exceed the federal health standards for those pollutants. The severity of the expected pollutant can advise what populations should limit their exposure to pollutants via reducing time spent outside.

To check current air quality conditions you can visit [AirNow.gov](http://www.AirNow.gov). You can also subscribe to ADEQ’s Air Quality forecasts by visiting their website, scrolling to the bottom of the homepage, and clicking “Subscribe” on the right.

<table>
<thead>
<tr>
<th>Color Code</th>
<th>AQI Value</th>
<th>Actions to Protect Your Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>Good (0-50)</td>
<td>None.</td>
</tr>
<tr>
<td>Yellow</td>
<td>Moderate (51-100)</td>
<td>Unusually sensitive people should reduce prolonged or heavy exertion outdoors.</td>
</tr>
<tr>
<td>Orange</td>
<td>Unhealthy for Sensitive Groups (101-150)</td>
<td>Sensitive groups should reduce prolonged or heavy exertion outdoors: People with heart and lung disease, Children and older adults, People that are active outdoors</td>
</tr>
<tr>
<td>Red</td>
<td>Unhealthy (151-200)</td>
<td>Sensitive groups should avoid prolonged or heavy exertion outdoors. Everyone should reduce prolonged or heavy exertion outdoors.</td>
</tr>
<tr>
<td>Purple</td>
<td>Very Unhealthy (201-300)</td>
<td>Sensitive groups should avoid all physical activity outdoors. Everyone should avoid prolonged or heavy exertion outdoors.</td>
</tr>
</tbody>
</table>

**How Can I Protect Myself and My Family on High Pollution Advisory Days?**
- Limit outdoor activities.
- Purchase and use an indoor air purifier.
- Change your HVAC system filter often and install good quality filters.
- If spending time outside, such as to walk your dog, limit yourself to early morning hours or late evenings when ozone pollution is much lower.
- Exercise indoors.
- Limit burning activities such as recreational fires.
- Go tobacco free!
- Avoid idling your car which produces high levels of emissions.
- Use natural products and low VOC paints in your home to protect indoor air.
- Do not use gas-powered garden equipment.

“Staying healthy is about what you know, not just what you see.”
—ADEQ, “The Air We Breathe”

“The Air We Breathe: Inside Your Lungs” Video by ADEQ

Pinal County residents may also check and/or subscribe to the Pinal County Air Quality Forecast.

Please visit www.PinalCountyAZ.gov/AirQuality for more info.
Nearly 25 million Americans have asthma, or 1 in every 13 people. More than 5 million children in the United States live with asthma, often missing school due to complications or asthma attacks, making asthma one of the most common causes of missed school attendance.

Research shows that air pollution can worsen asthma symptoms. A study of young campers with moderate to severe asthma showed they were 40 percent more likely to have acute asthma episodes on high pollution summer days than on days with average pollution levels.

Another study found that older adults were more likely to visit the emergency room for breathing problems when summer air pollution was high.

Air pollution can make it more difficult to breathe and may also increase those suffering from asthma’s sensitivity to asthma triggers.

How Can You Help Those with Asthma or Protect Yourself from Asthma Attacks?

- Choose less intense activities on high air pollution / allergen days.
- Be aware of your body and past triggers.
- Use an indoor air purifier in your home to reduce particle pollution such as dust, allergens, and mold spores.
- On hot summer days, plan to do outdoor activities early in the morning when pollution levels are lower.

10 Tips to Protect Yourself from Unhealthy Air
(Lung.org/clean-air/outdoors/10-tips-to-protect-yourself)

Did you know outdoor air pollution is an asthma trigger?

Reduce your exposure!

1. Stay informed about air quality by checking the Air Quality Index (AQI) on local weather reports or at epa.gov/airnow.

2. Consider scheduling outdoor activities at times when air quality is better. In the summer, this may be in the morning.

3. Stay inside with windows closed on high pollen days and when pollutants are high.

4. Work with a healthcare provider to identify your asthma triggers and develop an asthma action plan to reduce triggers in your home.

epa.gov/asthma
You may have noticed the haze and smoke lately, that is drifting into the central Arizona and Pinal County from the current wildfires. Wildfire smoke exacerbates local air pollution, including the formation of ground-level ozone. The particulate matter in smoke is also a dangerous air pollutant\(^1\). If you would like to know more about current smoke conditions and the smoke forecast, you may check ADEQ’s Wildfire Smoke Forecast website (www.azdeq.gov/WildfireForecast) as well as the new AirNow.gov Fire & Smoke Map (www.airnow.gov/fires), which is a national website that tracks wildfire smoke’s impacts and effects on local AQI. Take steps to protect yourself from prolonged exposure to wildfire smoke by checking the smoke forecasts and limiting your time spent outside\(^12\).

Sources