

The Air Quality Index

Each day the US EPA monitors levels of air pollutants across the country and uses the Air Quality Index (AQI) to communicate local air quality and help people understand when to take action to protect their health.

Air Quality Index	Who Needs to be Concerned?	What Should I Do?
Good 0-50	It's a great day to be active outside.	
Moderate 51-100	Some people who may be unusually sensitive to particle pollution.	<p>Unusually sensitive people: Consider reducing prolonged or heavy exertion. Watch for symptoms such as coughing or shortness of breath. These are signs to take it easier.</p> <p>Everyone else: It's a good day to be active outside.</p>
Unhealthy for Sensitive Groups 101-150	Sensitive groups include people with heart or lung disease, older adults, children and teenagers.	<p>Sensitive groups: Reduce prolonged or heavy exertion. It's OK to be active outside, but take more breaks and do less intense activities. Watch for symptoms such as coughing or shortness of breath.</p> <p>People with asthma should follow their asthma action plans and keep quick relief medicine handy.</p> <p>If you have heart disease: Symptoms such as palpitations, shortness of breath, or unusual fatigue may indicate a serious problem. If you have any of these, contact your health care provider.</p>
Unhealthy 151 to 200	Everyone	<p>Sensitive groups: Avoid prolonged or heavy exertion. Move activities indoors or reschedule to a time when the air quality is better.</p> <p>Everyone else: Reduce prolonged or heavy exertion. Take more breaks during all outdoor activities.</p>
Very Unhealthy 201-300	Everyone	<p>Sensitive groups: Avoid all physical activity outdoors. Move activities indoors or reschedule to a time when air quality is better.</p> <p>Everyone else: Avoid prolonged or heavy exertion. Consider moving activities indoors or rescheduling to a time when air quality is better.</p>
Hazardous 301-500	Everyone	<p>Everyone: Avoid all physical activity outdoors.</p> <p>Sensitive groups: Remain indoors and keep activity levels low. Follow tips for keeping particle levels low indoors.</p>

Access
real-time
AQI data
or the
AQI forecast
at
airnow.gov

Sensitive groups include people with heart and lung disease, older adults and children. Source: airnow.gov

Guide to the Air Quality Index (AQI)

The EPA monitors air quality | Air pollutants monitored by the EPA include particle pollution, ground-level ozone, carbon monoxide, sulfur dioxide and nitrogen dioxide. The EPA has established National Ambient Air Quality Standards (NAAQS) to protect public health from poor air quality.

The EPA reports air quality data to the public using the AQI | Pollutant concentration data from monitoring stations and the NAAQS are used to determine an AQI value for each pollutant, ranging from 0-500. A color-coded scale is used to communicate air quality, from good (green) to hazardous (purple), to help people understand when to take action to protect their health.



EPA air quality monitoring station. To view location of stations near you, visit www.epa.gov/outdoor-air-quality-data

Being aware of current and forecasted air quality conditions can help you plan outdoor activities to avoid exposure to unhealthy air.

Guide to using airnow.gov to monitor air quality

The public can access current AQI conditions or the AQI forecast at airnow.gov | Ground-level ozone and particle pollution are the two categories of air pollution that pose the greatest threat to human health in this country. Each day, the AQI reported at airnow.gov is accompanied by a health message that is determined by the pollutant (ozone or particle pollution) with highest AQI value.

Let's look at AQI data from a recent summer day in a major metropolitan area to learn how to use the AQI to plan outdoor activities.

Current Air Quality

Under "Current Conditions" you can view the *observed AQI* (at 11:00am) for ozone and particle pollution along with a health message. In this example the AQI for particle pollution (PM_{2.5}) is driving the health message on this day.

Current Conditions		
Air Quality Index (AQI) observed at 11:00 EDT		
53	Moderate	
Health Message: Unusually sensitive people should consider reducing prolonged or heavy exertion.		
<small>Note: Values above 500 are considered Beyond the AQI. Follow recommendations for the Hazardous category. Additional information on reducing exposure to extremely high levels of particle pollution is available here.</small>		
AQI - Pollutant Details		
Ozone	30	Good
Particles (PM _{2.5})	53	Moderate

Forecasted Air Quality

Weather data as well as information about local air quality events (e.g. wildfires) are used to generate an air quality forecast. Under "Air Quality Forecast" you will see today's and tomorrow's *forecasted AQI* for ozone and

Air Quality Forecast					
Today		Tomorrow			
Air Quality Index (AQI)		Air Quality Index (AQI)			
54	Moderate	54	Moderate		
Health Message: Unusually sensitive people should consider reducing prolonged or heavy exertion outdoors.		Health Message: Unusually sensitive people should consider reducing prolonged or heavy exertion outdoors.			
AQI - Pollutant Details					
Ozone	54	Moderate	Ozone	54	Moderate
Particles (PM _{2.5})	40	Good	Particles (PM _{2.5})	40	Good

Health Messages

In this example you'll notice that while the forecasted AQI (54) for this day is similar to the observed ("current") conditions (53), the pollutant predicted to drive the day's health messaging was ozone rather than particle pollution (PM_{2.5}).