



AIR QUALITY INDEX MADE UNDERSTANDABLE

It starts with OUTDOOR AIR...

Outdoor air is the cleanest to inhale under normal conditions, up to 5X cleaner than indoor air, reports the EPA.

So why not use outdoor air quality levels as an indoor air quality start point?

The EPA has a system called the **EPA's AirData** which enables us to do just that; know the quality of the outdoor in your zip code right now: [AirNow.gov](https://airnow.gov).

In its dataset the EPA has set national air quality standards for six common pollutants:

- Ozone (O₃) (you can compare an 8-hour Ozone "exceedance" level from this year with previous years)
- Particulate matter (PM₁₀ and PM_{2.5})
- Carbon monoxide (CO)
- Nitrogen dioxide (NO₂)
- Sulfur dioxide (SO₂)
- Lead (Pb)

The EPA's Air Quality Index (AQI)

Think of the AQI as a yardstick that runs from 0 to 500. The higher the AQI value, the greater the air pollution and risk to health, e.g., an AQI value of 50 represents good air quality with little potential to affect public health, while an AQI value over 300 represents hazardous air quality.

An AQI value of 100 is the standard value the EPA sets for essentially clean air set to protect public health. AQI values below 100 are generally thought of as satisfactory, while above 100 are considered unhealthy-for certain sensitive groups of people, then for everyone as AQI values trend higher.



The EPA Air Quality Index:

AIR QUALITY INDEX - PARTICULATE MATTER	
301+	HAZARDOUS
201-300	VERY UNHEALTHY
151-200	UNHEALTHY
101-150	UNHEALTHY FOR SENSITIVE GROUPS
51-100	MODERATE
0-50	GOOD

The six levels of health concern and what they mean

- **"Good" AQI is 0 - 50.** Air quality is considered satisfactory; air pollution poses little or no risk.
- **"Moderate" AQI is 51 - 100.** Air quality is acceptable; however, for some pollutants there may be a moderate health concern for people who are unusually sensitive to ozone, they may experience respiratory symptoms.
- **"Unhealthy for Sensitive Groups" AQI is 101 - 150.** Although general public is not likely to be affected at this AQI range, people with lung disease, older adults and children are at a greater risk from exposure to ozone and from the presence of particles in the air.
- **"Unhealthy" AQI is 151 - 200.** Everyone may begin to experience some adverse health effects; members of the sensitive groups may experience more serious effects.
- **"Very Unhealthy" AQI is 201 - 300.** This would trigger a health alert signifying that everyone may experience more serious health effects.
- **"Hazardous" AQI greater than 300.** This would trigger health warnings of emergency conditions. The entire population is more likely to be affected.