Term

Air quality advisories

Definition: These advisories are usually called when the Air Quality Index (or AQI) gets into the unhealthy ranges. Different air pollution control agencies call them at different levels.

Air Quality Index

Definition: A nationally uniform index for reporting and forecasting daily air quality. It is used to report on the four most common ambient air pollutants that are regulated under the Clean Air Act: ground-level ozone, particle pollution (PM and PM.), carbon monoxide (CO), and sulfur dioxide (SO). The AQI focuses on health effects that may be experienced within a few hours or days after breathing polluted air.

Acronym: AQI

At-risk populations

Definition: See definition for sensitive groups.

Carbon monoxide

Definition: A colorless, odorless gas that can be harmful when inhaled in large amounts. CO is released when something is burned.

The greatest sources of CO to outdoor air are cars, trucks, and other vehicles or machinery that burn fossil fuels.

Acronym: CO

Children

Definition: People less than 18 years of age.

Term

Coarse particles

Definition: Particles with diameters generally larger than 2.5 micrometers (µm) and smaller than, or equal to, 10 µm in diameter.

Fine particles

Definition: Particles that are generally 2.5 μm in diameter or smaller. This group of particles also encompasses ultrafine particles and nanoparticles which are generally classified as having diameters less than 0.1 μm.

High-efficiency particulate air filter

Definition: A type of pleated mechanical air filter. This type of air filter can theoretically remove at least 99.97% of dust, pollen, mold, bacteria, and any airborne particles with a size of 0.3 microns (µm).

Acronym: HEPA filter

Hygroscopicity

Definition: The quality of absorbing or attracting moisture from the air.

Integrated Science Assessments

Definition: Reports that represent concise evaluations and syntheses of the most policy-relevant science for reviewing the National Ambient Air Quality Standards (NAAQS)(https://www.epa.gov/pmcourse/glossary-air-pollution-terms-particle-pollution-and-your-patients-health#NAAQS). All Integrated Science Assessments are vetted through a rigorous peer review process, including review by the Clean Air Scientific Advisory Committee as well as the public. See EPA's Integrated Scientific Assessments website (https://www.epa.gov/isa) for more information.

Page 2 of 6 07/04/2025

Term

Acronym: ISA

Inversion

Definition: An atmospheric condition where a layer of cooler air is trapped near the ground by a layer of warmer air above. When the air cannot rise, pollution at the surface also is trapped and can accumulate, leading to higher concentrations of ozone and particle pollution.

National Ambient Air Quality Standard

Definition: The Clean Air Act requires EPA to set National Ambient Air Quality Standards for pollutants considered harmful to public health and the environment. The EPA has set National Ambient Air Quality Standards for six criteria pollutants: sulfur dioxide (S0), particulates (PM./PM), nitrogen oxides (NO_x), carbon monoxide (CO), ozone (O), and lead (Pb). Periodically, the standards are reviewed and may be revised.

Acronym: NAAQS

Older adults

Definition: In many studies, older adults are defined as ages 65 years and older due to age definitions provided in health datasets such as the Medicare database. In terms of increased risk from air pollution, there is not a specific age at which someone is considered "older" because people age at different rates. As a person ages, there is greater susceptibility to environmental hazards due to a number of factors, including higher prevalence of pre-existing respiratory and cardiovascular disease, as well as the gradual decline in physiological defenses that occur as part of the aging process.

Ozone

Term Definition: Ground level ozone is not emitted directly into the air, but is created by chemical reactions between oxides of nitrogen (NO_x) and volatile organic compounds (VOC). This happens when pollutants emitted by cars, power plants, industrial boilers, refineries, chemical plants, and other sources chemically react in the presence of sunlight. Ozone at ground level is a harmful air pollutant, because of its effects on people and the environment, and it is the main ingredient in "smog." Particle pollution Definition: General term for a mixture of solids and liquid droplets suspended in the air. Particulate matter Definition: See definition for Particle pollution. Acronym: PM PM. Definition: See definition for Ultrafine particles. PM-. Definition: See definition for Coarse particles. PM. Definition: See definition for Fine particles. Primary fine particles

Page 4 of 6 07/04/2025

Term

Definition: Fine particles that are emitted directly from a source, such as construction sites, unpaved roads, smokestacks, or fires. Secondary fine particles

Definition: Fine particles that form in complicated reactions in the atmosphere of chemicals, such as sulfur dioxides and nitrogen oxides, that are emitted from power plants, industries, and automobiles.

Sensitive groups

Definition: A term used for a category of persons at increased risk of experiencing adverse health effects related to air pollution exposures. These groups can be at increased risk due to intrinsic factors (biological), extrinsic factors (external, non-biological), higher exposure, and/or increased dose at a given concentration. The severity of the health effects that these groups experience may be much greater than in the general population.

Socio-economic status

Definition: A composite measure that is often comprised of a number of indicators, including economic status measured by income, social status measured by education, and work status measured by occupation. Each of these linked factors can influence a population's susceptibility to particle pollution-related health effects (Dutton and Levine, 1989).

Acronym: SES

Sulfur dioxide

Definition: One of a group of gases called sulfur oxides (SO_X) . While all of these gases are harmful to human health and the environment, SO is of greater concern. The largest sources of SO emissions are from fossil fuel combustion at power plants and

erm	
ther industrial facilities.	
cronym: SO	
Iltrafine particles	
efinition: Particles that are generally classified as having diameters less than 0.1 μm.	

Page 6 of 6 07/04/2025