

Guidelines for Protecting Yourself from Smoke (Adapted from “Wildfire Smoke: A Guide for Public Health Officials”, EPA Region X)

If you are in an area where smoke is present, you can estimate the level of particulate matter in the air by using the information in the table below. Contact your health care provider if you are having symptoms of heart or lung disease.

Estimating Particulate Matter Concentrations from Visibility Assessment

Category	Approximate Visibility in Miles	Particulate Matter levels (1-hour average, $\mu\text{g}/\text{m}^3$)	Potential Health Effects	Cautionary Statements
Good	11 mi & up	0 – 38	None expected	None
Moderate	6 to 10	39 – 89	Possible aggravation of heart or respiratory disease.	People with heart or lung disease should pay attention to symptoms.
Unhealthy for Sensitive Groups	3 to 5	89 – 138	Increasing likelihood of respiratory symptoms and aggravation of lung disease such as asthma.	People with heart or lung disease, the elderly, children and pregnant women should <i>limit</i> prolonged exertion and stay indoors when possible.
Unhealthy	1½ to 2¾	139 – 350	Increased respiratory symptoms and aggravation of lung and heart diseases; possible respiratory effects in general population.	People with heart or lung disease, the elderly, children and pregnant women should <i>avoid</i> prolonged exertion and stay indoors when possible; everyone else should <i>limit</i> prolonged exertion.
Very Unhealthy	1 to 1 ¼	351 – 526	Significant increase in respiratory symptoms and aggravation of existing lung and heart disease; increasing likelihood of respiratory effects in general population.	People with heart or lung disease, the elderly, children and pregnant women should <i>avoid</i> any outdoor activity; everyone else should <i>avoid</i> any outdoor exertion.
Hazardous	Less than 1 mile	over 527	Serious aggravation of heart or lung disease, premature mortality in persons with cardiopulmonary disease and the elderly; serious risk of respiratory effects in general population.	Everyone should <i>avoid</i> any outdoor activity; everyone should remain indoors whenever possible.

Procedure for Making Personal Observation to Determine Smoke Concentrations

- Face away from the sun
- Determine the limit of your visibility range by looking for targets at known distances (miles). Visible range is that point at which even the high contrast objects totally disappear
- After determining visibility in miles, use the next table to determine potential health effects and appropriate cautionary statement

At times, even the visibility index may be hard to use, especially if specific landmarks of known distance are not available for judging distances, or if fog is present. In such cases, individuals may have to rely on common sense in assessing smoke conditions (e.g., mild, moderate, heavy smoke) and the kinds of protective actions that might be necessary. Contact your health care provider if you are having symptoms of heart or lung disease.