



# Protect Our Kids' Health Don't Weaken the Clean Air Act

The American Lung Association **strongly opposes any** legislation that would block the authority of the U.S. Environmental Protection Agency to implement the Clean Air Act.

## Climate Change and Ozone

**Scientists warn that the buildup of greenhouse gases and the climate changes caused by it will create conditions, including warmer temperatures, which will increase the risk of unhealthy ambient ozone levels. Higher temperatures can enhance the conditions for ozone formation.**<sup>1</sup> Even with the steps that are in place to reduce ozone, evidence warns that changes in climate are **likely to increase ozone** levels in the future in large parts of the United States.<sup>2</sup> To protect human health, the nation needs strong measures to reduce climate change and ozone.

Ozone is a highly reactive gas that is a form of oxygen. Commonly known as smog, ozone is a pervasive air pollutant that forms in the atmosphere when hydrocarbon vapors react with oxides of nitrogen in the presence of sunlight and heat.<sup>3</sup> The American Lung Association [State of the Air report](#) shows that millions of Americans live in areas where the air is unhealthy because of ozone air pollution.<sup>4</sup>

## Ozone Harms Health

When a person inhales ozone, it reacts chemically with the body's internal tissues causing inflammation, like a "sunburn," of the lung. Ozone acts as a powerful respiratory irritant at the levels found frequently across the nation. Breathing ozone may lead to serious harm to health, including:

- premature **death**;<sup>5</sup>
- **shortness of breath**<sup>6</sup> and **chest pain**;<sup>7</sup>
- **wheezing** and **coughing**;<sup>8</sup>
- **inflammation** of the lining of the lungs;<sup>9</sup>
- increased susceptibility to **respiratory infections**;<sup>10</sup>
- increased risk of **asthma attacks**;<sup>11</sup> and
- increased need for medical treatment and **hospitalization** for people with lung diseases, such as **asthma** or chronic obstructive pulmonary disease (**COPD**).<sup>12</sup>

**Children** who regularly breathe high levels of ozone may face **reduced lung function** in adulthood.<sup>13</sup> Reduced lung function increases the **risk of lung disease** later in life.

## Most at risk

- People with lung diseases such as **asthma, chronic bronchitis** and **emphysema**;<sup>14</sup>
- **Children**—because their airways are smaller, their respiratory defenses are not fully formed, and their higher breathing rates increase their exposure;<sup>15</sup>
- People who **work** or **exercise outdoors**;<sup>16</sup>
- **Adults 65 years old** and older;<sup>17</sup> and
- **"Responders"**—otherwise healthy individuals who experience health effects at lower levels of exposure than the average person.<sup>18</sup>

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- <sup>5</sup> National Research Council, Committee on Estimating Mortality Risk Reduction and Economic Benefits from Controlling Ozone Air Pollution. *Estimating Mortality Risk Reduction and Economic Benefits from Controlling Ozone Air Pollution*. National Academy Press, 2008.
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