

Managing Asthma & Ozone in the Houston Area

A Guide for People with Respiratory Sensitivities

Ozone is a common air pollutant in the Houston-Galveston area that can irritate the respiratory system. Adults and children with asthma or other respiratory conditions are especially sensitive to the damaging effects of ozone and need to avoid being outside when ground level ozone concentrations are high.

When to be concerned about ozone

Ground-level ozone is most often present during the afternoon. Ozone pollution can occur anywhere in the Houston-Galveston area, but is more frequent and intense in Harris and Galveston counties. Ozone forms on warm, sunny afternoons when winds are light, and is the result of pollution from cars, trucks, industry and power plants. Ozone isn't formed as readily when it is cold, windy, or cloudy.

To protect yourself or your child from exposure to harmful levels of ozone, you can receive ozone warnings at home, work, or school and even outdoors. The state issues these health warnings at twenty minutes after the hour when the measured ozone concentration exceeds the federal health standard. For example, warnings issued at 4:20 PM are for the hour from 3:00 PM to 4:00 PM.

When you are at home or work

If the weather is suitable for ozone to form, it is a good idea to keep track of current ozone levels. One convenient way is to use the internet. At www.cleanairaction.org you can register to receive ozone warnings via e-mail, or you can check current ozone levels. Radio and television stations often announce ozone warnings, although some stations are more consistent in providing this information than others.

If you determine which air quality monitors are located near your home and workplace, and pay attention to wind direction, you can determine whether the warnings are significant to you. Ozone usually forms over the Houston Ship Channel, Galveston Bay, or coastal areas, and travels north, west, and occasionally east.

When you or your child are at school

Several school districts in the Houston-Galveston area send ozone warnings via e-mail to individual schools. Most school principals will limit outdoor activity when ozone concentrations reach levels that are unhealthy for sensitive groups, which include children. Check with the principal to review the policy at your school. You may contact us if you have further concerns.

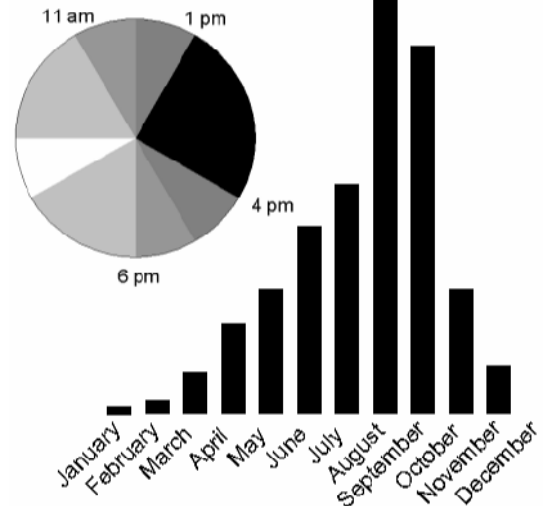
When you are outdoors

It is more difficult to keep track of ozone conditions when you are outdoors and away from the internet, radio, and television warnings for long periods of time. If you have a digital pager, you can subscribe to the same e-mail ozone warnings at www.cleanairaction.org. You may call 1-888-994-9901 for air pollution warnings, or call 713-640-4358 after 3:30 pm to hear a recording of the highest ozone levels for the day.

Be aware

If you experience respiratory problems that you cannot control, call your doctor. None of these warning systems is perfect and breakdowns can occur. A back-up plan is advisable to have in case one warning system fails. The only fail-safe method of reducing ozone exposure is to reduce air pollution.

When Ozone Pollution is a Risk



Over 80% of ozone warning days occur during the June – October period. Ozone warnings generally occur between 11 am and 6 pm, with the peak ozone period indicated by the darker shading in the clock chart above.

Levels of ozone above 125 parts per billion (ppb) trigger an ozone warning and are unhealthy for sensitive individuals. Levels above 165 ppb are unhealthy for everyone. When ozone concentrations exceed 205 ppb, the condition is hazardous.

Note: Each chart illustrates the distribution of the number of days that ozone levels exceeded the one-hour federal health standard during the past several years in the Houston metro area.

Ozone can be good or bad depending on where it is.

Ozone in the upper atmosphere protects us from harmful ultraviolet radiation from the sun. Ozone formed at ground level, however, is a component of smog and can be harmful to our health.



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