



The EPA has a saying about ozone – “Good up high, bad nearby.” Ozone in the stratosphere or upper layer of the Earth's atmosphere protects us from the sun's ultra-violet rays. Ozone found in the troposphere, or the lowest part of the Earth's atmosphere, is of concern. *Ozone in the troposphere is a potent lung irritant and a known trigger for asthma symptoms and flare-ups.* Ozone is found in air pollution and consists of man-made by-products of gasoline, diesel fuels and coal. These emissions combine with oxygen to form ozone, usually on sunny, high temperature days, (May through September in Texas) usually in late afternoon and early evening and it fades during cooler nights.

When we inhale ozone, it is **very corrosive to our respiratory tract**, damaging the air sacs in the lungs. Exposure can inflame lung tissue and cause respiratory infections, especially for people with asthma and allergies. **Signs of a bad ozone reaction include** an inability to breathe deeply, a raspy voice, runny nose or rhinitis, headache, chest pains and coughing. As if ozone itself wasn't harmful enough, the reactive nature of ozone can change the chemical composition of many materials and substances in a destructive way. Those substances, including household cleaning products, are often harmless in and of themselves. But when ozone reacts with chemicals found indoors, the *new chemicals formed can be irritating and extremely dangerous.*

Outdoor ozone is dangerous but **ozone is also found indoors**. It is created by devices such as copiers, computer printers, fax machines and ozone generators. Ionizers and electronic precipitators (air purifiers) also create ozone as a by-product. The EPA has done research on the effects of ozone and the devices that generate ozone. This can be found at [www.epa.gov/iaq/pubs/ozonegen.html](http://www.epa.gov/iaq/pubs/ozonegen.html). There is **no difference**, despite some manufacturers' claims, between the **danger to asthmatics in outdoor ozone or indoor ozone**. Indoor ozone is produced in the home directly by ozone generators and indirectly by ion generators and some other electronic air cleaners. **Available scientific evidence shows ozone is ineffective in controlling indoor air pollution.** The concentration of ozone would have to greatly exceed health standards to be effective in removing most indoor air contaminants. Ozone applied to indoor air **does not remove viruses, bacteria, mold, or other pollutants like dust mites**. If you're thinking of buying an electronic device to help control asthma and allergies, do some research on their efficacy and safety: don't rely on the manufacturer's website or brochures alone for information. Seek scientific information from acknowledged sources: the EPA, Consumer Reports and specialty medical associations including the AAAAI (American Academy of Allergy Asthma & Immunology) and ACAAI (American College of Asthma, Allergy and Immunology) as well as your own specialist.

**Protect yourself and your children from outdoor ozone: check** the Air Quality Index (AQI) on TV weather or online each morning. Learn the color guide for AQI: Green = good air quality, no damaging affects on health; Yellow = moderate air quality, but sensitive people should limit their time outdoors; Orange = unhealthy for sensitive groups, including those physically active and those with asthma or other respiratory diseases - limit your time outside; Red = Unhealthy air; everyone should avoid prolonged outdoor activity; Purple = Very Unhealthy – stay indoors if you have asthma or respiratory allergies and non-sensitive groups should limit their time outdoors.

**Besides checking on AQ, limit your exposure to ozone:** avoid exercising, playing or doing yard work outdoors during afternoon or early evening hours when ozone is worse; ask your physician about using your rescue meds on days with poor AQ; if you decide to buy an air purifier, the best type to get is a HEPA unit. (Check *Consumer Reports* for quality ratings). Limit your auto use in late afternoon and evening -run errands in the morning, use car pools or public transportation; don't let your car idle in traffic; don't fuel up your vehicles in late afternoon or early evening; keep your vehicle engine tuned; avoid using grills at this time; use cleaning and painting products that are environmentally safe; conserve energy in order to stop ozone production.

AAFA-TX  
Ft. Worth, TX 76123  
817-297-3132 \* 888-933-2232  
[info@aafatexas.org](mailto:info@aafatexas.org) \* [www.aafatexas.org](http://www.aafatexas.org)

*The information provided is for reference only and is not a substitute for professional medical care*