

Understanding Good vs Bad Ozone



Good Ozone

good up high

ozone

bad nearby

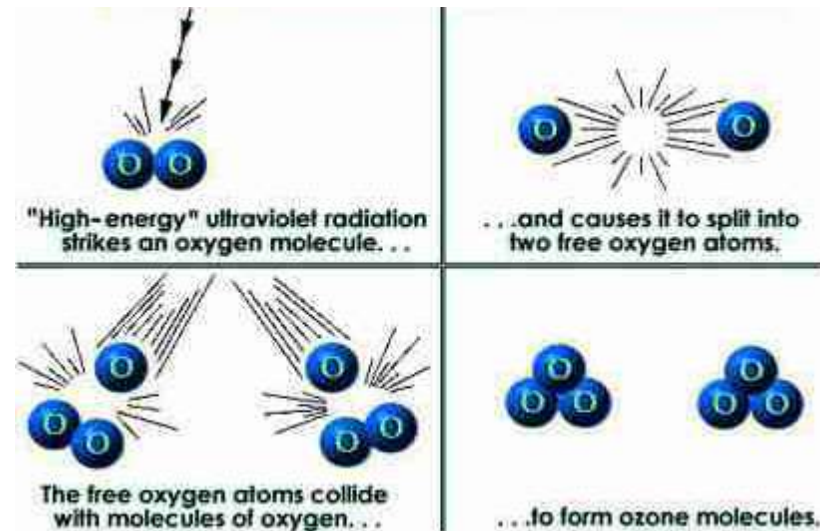
Bad Ozone



EPA or The Environment Protection Agency is an independent agency of the United States federal government for environment protection

What is Ozone?

- Ozone (O_3) consists of three oxygen atoms. In nature it is created when ultraviolet (UV) light from the sun breaks down the oxygen molecule into two single oxygen atoms which quickly attaches itself to another oxygen molecule (O_2) to become ozone.



Ozone

Scientific Definition of Ozone

Pure **Ozone** is O₃
(3 oxygen atoms)



Good Ozone is found in the upper layer of our atmosphere called stratosphere.



Ozone

EPA Definition of Ozone

Made up of:

- Carbon Monoxide
- Sulfur Dioxide
- Nitrogen Dioxide
- Particulate Matter
- Ozone



Bad Ozone is found in the Earth's troposphere i.e. the level closest to the ground and is commonly known as:



"Smog"

"Ground Level Ozone" or "Ozone Pollution"



What is Ozone?



Ozone is a naturally occurring molecule. It is Mother Nature's natural cleanser. She produces ozone wherever it is needed for protection, recycling and clean up. The ozone layer of the outer atmosphere shields earth from heavy doses of ultraviolet light emissions from the sun, protecting all forms of life. Destruction of, or even significant reduction of, this stratospheric ozone layer will have dire consequences for most life forms on earth, not just mankind.

In our lower atmosphere the sun continuously produces ozone in small amounts.

Ozone seems to be one of the automatic defense mechanisms of Earth itself, as well as its best and strongest natural cleanser. The more pollution man dumps into the atmosphere, the more ozone Mother Nature produces to clean it up. In attempting to clean up this smog, the amount of ozone produced photochemically by nature is so precise (as needed-where needed), that scientists use this exact concentration of ozone as the **index** for the total level of pollution. Unfortunately, the scientists forget to footnote that ozone is the "index", so the public is left with the impression that the ozone is actually causing the polluting, rather than being an induced product of the pollution.

Source: Eagleton, Jim, EPA. 1999

Ozone



- FDA and USDA Approved since year 2001

