



FACT SHEET

What is Smog / Ozone?

What is smog?

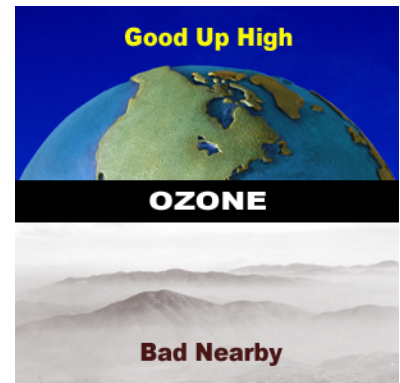
The term "smog" was first used in London during the early 1900's to describe the combination of smoke and fog. What we typically call "smog" today is a mixture of pollutants but is primarily made up of ground-level ozone.

Where does smog come from?

The major component of smog, ozone, is a gas composed of three oxygen atoms. It is not usually emitted directly into the air but rather is produced through a complex set of photochemical reactions involving volatile organic compounds (VOC's) and nitrogen oxides in the presence of sunlight. Smog-forming pollutants come from many sources, such as automobile exhausts, power plants, factories, and many consumer products, including paints, charcoal starter fluid, solvents, and even hair spray. In typical urban areas, at least half of the smog precursors come from cars, buses, trucks, and boats.

Is ozone good or bad?

Ozone has the same chemical structure whether it occurs miles above the Earth or at ground level and can be "good" or "bad," depending on its location in the atmosphere. Ozone occurs naturally in the stratosphere, about 10 - 30 miles above the Earth's surface, and forms a layer that protects life from the sun's harmful rays. In the Earth's lower atmosphere, at ground-level, ozone is unhealthy to breathe. [Remember: good up-high, bad nearby]



How does smog affect health?

A strong irritant, ozone can restrict airways, resulting in difficulty breathing and forcing the respiratory and cardiovascular systems to work harder in order to provide oxygen. It can inflame and damage the lining of the lungs. Ozone is especially harmful for children whose lungs are still developing, senior citizens whose immune systems are weakening, and those who suffer from asthma or chronic lung or heart disease.

When are smog levels the highest?

As a rule, low wind speeds or stagnant air coupled with warm temperatures and cloudless skies provide for optimum conditions. Summer, therefore, is generally the peak ozone season. Peak ozone concentrations usually occur in the afternoon when the sunshine is most intense.

How can I find out today's ozone level?

Citizens can call a smog recording at (858) 586-2800 which gives the day's maximum pollution levels listed by monitoring stations and the forecasted pollution levels for the next day. The recording is updated at 4:30 p.m. each weekday. The recording also provides advance notice if there is the potential for unhealthy air quality. Air quality information can also be obtained through this web site (www.sdapcd.org) under Current Air Quality.