RECOMMENDATIONS

In high ozone pollution situations, citizens shouldn’t do any outdoor exercise or physical work, during the middle of the day or the afternoon when ozone levels are highest.

This is particularly true for the most vulnerable groups: children, older people or people with chronic respiratory and heart diseases and pregnant women, as well as amateur and professional athletes.

As for vegetation, you shouldn’t water crops at midday or in the afternoon, when the ozone levels are highest as it can cause greater damage by penetrating the stomata of plants.

WHAT CAN WE DO?

• Demand that authorities quickly report the tropospheric ozone levels in an easy to understand language via Internet and the mass media.
• Demand that the government prepare preventative plans to improve air quality and short-term action plans to lower ozone levels.
• Walk or use a bike and public transportation for your daily transportation needs, so we can reduce the pollution from private cars.
• Reduce our consumption of electricity, improve the insulation in our homes, use water-based paints and avoid using organic solvents.

Over the last few years, there has been growing concern about a unique pollutant, which isn’t emitted by smoke stacks or exhaust pipes, and affects rural areas and large cities alike. We are talking about TROPOSPHERIC OZONE.

Proper air quality requires that citizens should know the status of the air they breathe, so actions plans can be set up to reduce the pollution caused by ozone.

Tropospheric ozone pollution causes 17,000 premature deaths every in the European Union, 1,800 of these in Spain. Furthermore, two-thirds of the crops and a good deal of our forecast and natural spaces suffer ozone levels that damage vegetation.

WITH YOU WE CAN DO MUCH MORE
How is it formed?

Ozone is usually produced by the emissions of other pollutants called “precursors”, which come from traffic, industry, and heating. The precursor pollutants are transformed into ozone, especially in the presence of sunlight.

Cars, power plants and the use of organic solvents in paint and paste are the largest sources of ozone precursors, as well as nitrogen oxides (NOx) and volatile organic compounds (COV).

On the Mediterranean coast, the breeze pushes pollution onto the mainland by day and out to sea at night. In the center of the peninsula, the wind drives the air pollution concentration of Madrid to the border of the two Castillas regions.

Ozone and your health

The ozone is a powerful oxidant that has a significant impact on your health. Those most affected by ozone are children, senior citizens, pregnant women and people who suffer respiratory and heart diseases.

**Short-term effects:** It reduces your lung capacity, irritates your eyes and mucous membranes, cause headaches and fatigue, leads to premature births in pregnant women, and aggravates respiratory and heart diseases, which can lead to hospitalization or death.

**Long-term effects:** It affects lung development, increases the rates and seriousness of asthma, causes cognitive alternations similar to Alzheimer’s, and increases the mortality rate for people with chronic respiratory and heart diseases, COPD, diabetes and heart attacks.

Ozone and vegetation

The current levels of ozone-induced pollution are directly responsible for the lower yields for crops such as potato, tomato, citrus fruits, melon, watermelon, or wheat, which according to the place and year, can drop by as much as 40%.

**Acute exposure:** Exposure to high concentrations of ozone during short periods of time generally causes damage that can be easily seen, specially the stains on leaves, which aren’t always related to reductions in growth.

**Chronic exposure:** This occurs in low to average ozone concentrations over long periods of time. This leads to premature aging, lower growth and productivity in plants, although the symptoms aren’t always visible.