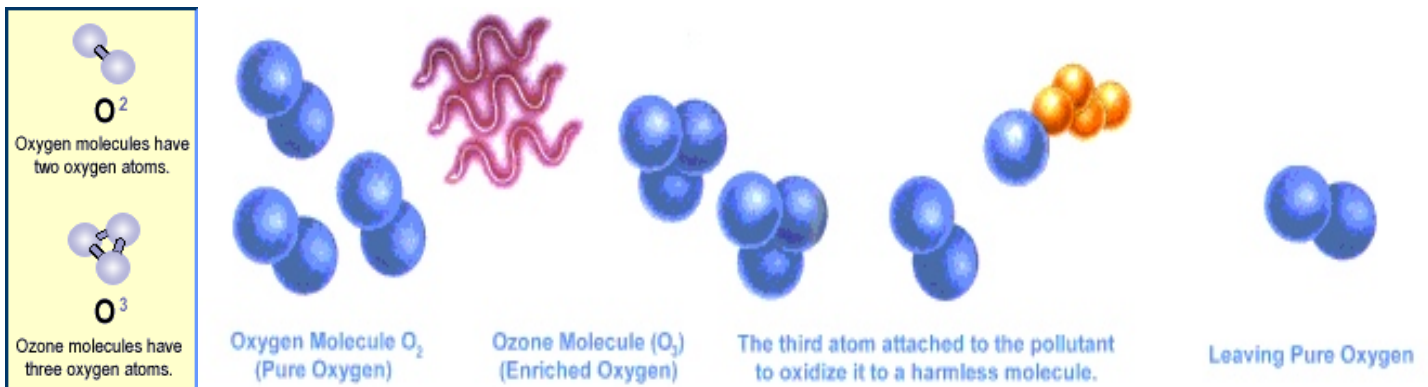


# Ozone Shock Treatments

Another pioneering service offered by In-Spect are revolutionary ozone shock treatments. These treatments are able to eliminate odors in an indoor environment, using nothing except 'supercharged' oxygen. There are no chemicals involved, no harsh smells, no lingering side effects, and no mess to clean up. The process is extremely effective in removing pet odors, cigarette smoke odors, musty smells, and new construction and/or renovation odors caused primarily by VOC's (volatile organic compounds). Ozone treatments can be completed in as little as several hours for minor problems, or can be extended to a 24 or 36 hour period for severe problems. Ozone is generated naturally by ozone strikes, and by briskly moving water. These activities produce an electrical charge which modify the oxygen molecules on a molecular level by adding an extra atom of oxygen, producing an ozone molecule. This confused, unnatural arrangement causes the extra oxygen atom to want to break off and attach to something else as soon as it can. It therefore, breaks off and attempts attach to whatever other molecule it can find, especially carbon and sulfur molecules. By their very nature, these types of molecules harbor and carry odors. By attaching to these molecules, the stray oxygen atom actually creates an explosion on a molecular level, thereby destroying the other molecule (as well as any odors or impurities being carried by it) in the process. This process will continue as long as there are extra, stray atoms of oxygen present in the air. The amount of stray oxygen atoms present is controlled by the intensity of the ozone shock treatment. When the treatment is stopped, the extra oxygen atoms quickly combine with one another, forming fresh, new oxygen molecules. Therefore, after conclusion of the treatment, there are no byproducts, no leftover chemicals, and no mess. The only thing remaining of the molecules which have been destroyed is a sort of microscopic 'dust' which settle harmlessly to the floor and is easily vacuumed up. This process is effective at killing odors, although it is not a miracle. Specific procedures must be followed in certain cases in order to ensure that the procedure is effective.



## Advantages of Ozone

- ◆ Ozone is the strongest oxidant and disinfectant available for the treatment of aqueous solutions and gaseous mixtures.
- ◆ Although ozone is only partially soluble in water, it is sufficiently soluble and stable such that its oxidation or disinfectant properties can be fully utilized.
- ◆ After ozone oxidizes or disinfects, it decomposes into oxygen
- ◆ Ozone reacts with a large variety of organic compounds resulting in oxygen-containing organic by-products.
- ◆ Although ozone is the strongest oxidizing agent commercially available, it is safe to handle. The primary reason is that it cannot be stored and, therefore must be generated and used on-site.
- ◆ Ozone in its gaseous phase is a proven deodorizer for a variety of odorous materials.

The ozone generators used by In-Spect are oxygen concentrated, meaning that they supply themselves with their own supply of pure oxygen. The main benefit of this system is that there is no nitric acid produced, which can damage some surfaces. This is the purest form of ozone which is able to be produced artificially. There are some things to remember when dealing with ozone as an odor remover. If the interior of the property is to be painted before an ozone treatment is to be performed, an oil based sealer/primer, such as Kilz ® must be used. This will seal in smells, so that they cannot seep back through the old and new layers of paint. This seepage will occur if the wall and ceiling surfaces are recoated with normal paint. This is especially true of the phenol gases, which are the main odor producers in cigarette smoke. The gases become trapped between the two layers of paint, and as time goes by, the odors will seep through and redevelop. All plants and animals must also be removed from the property prior to an ozone treatment, as the gas can be harmful to some species even at relatively low levels. Perhaps the most important condition necessary for an ozone treatment to take place is vacancy. The property must not be occupied by any people for the duration of the treatment. In-Spect will advise the customer how long of a treatment will be necessary, and when habitation may be resumed. During treatment, In-Spect personnel entering the premises must don personal protective equipment, as well as self-contained breathing apparatus. Our treatment personnel will not leave the site and permit re-entry until ozone levels are safe for unprotected occupation. This revolutionary process has been used for years as a treatment for sewage and waste water, and is now available to rid homes and businesses of offensive odors, as well as bacteria, viruses, and other dispersed airborne contaminants.