HEALTHY FAMILY HAPPY FAMILY
healthy news & information for you & your family

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Why do I need UV-C in my air purifier?

UV-C technology beneficial in the fight for high-quality indoor air

Indoor air can often be very low or poor quality air. When we leave our windows shut, air is constantly recirculated throughout our homes. Over time this air becomes stagnant and bacteria, molds and yeasts become concentrated causing inflammation of mucous membranes, upper respiratory problems and aggravating asthma and other breathing ailments.

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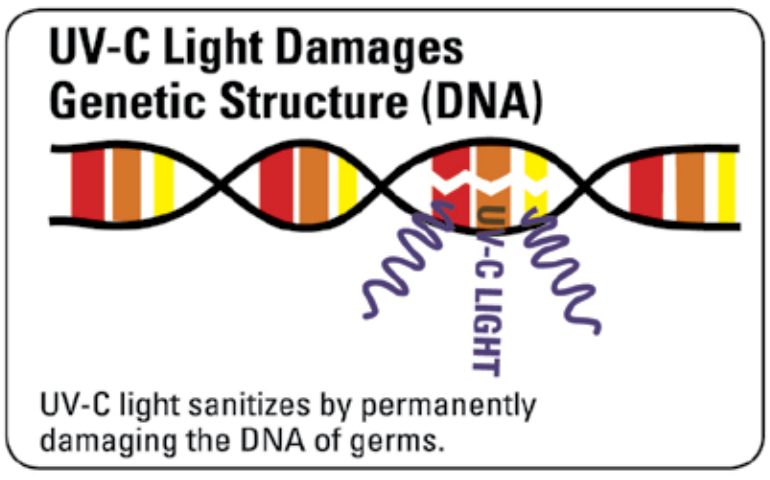
Most of us spend the majority of our day being indoors, either being at work or at home. So why would you not want to breath clean air? Having an air purifier with a True HEPA filter (high-efficiency particulate air) is a good step in improving the quality of the air you and your family breath at home.

A True HEPA filter captures 99.97% of airborne allergens such as household dust, pet dander, mold spores and plant pollens down to .3 microns in size.



A HEPA filter is extremely efficient at capturing these contaminants but often these produce microorganisms, trapped within the filter media, that will continue to grow and reproduce. The addition of a UV-C light within the purifier has proven to help control bacteria, viruses, yeasts and molds by killing them.

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According to the World Health Organization (WHO), 60% of IAQ problems and allergies may be mold-related. *(Source: Air Conditioning, Heating & Refrigeration News, "A cure for the dreaded 'Dirty Sock Syndrome'?" April 5, 1999, pp. 24-25.)*

An air purifier is essential to improve air quality in any room of your home or work. Not only are there germs floating around in your air, there are odors, dust mites, mold spores, pet dander, pollen and more.

This is why it is important to find the best air purifier on the market. Guardian Technologies air purifiers capture 99.9% of these small particles while also applying Guardian's safe UV-C light technology to kill airborne viruses and bacteria.

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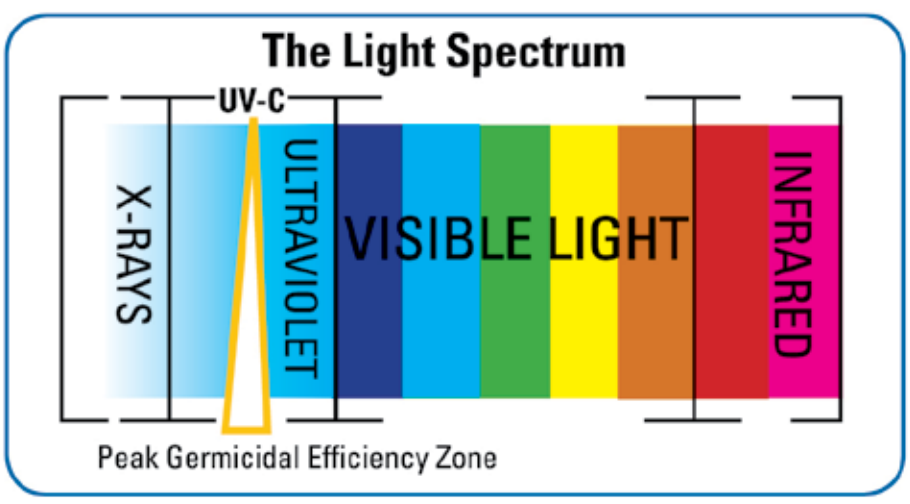
Visit **www.guardiantechnologies.com** for more information on our line of air purifiers with UV-C light technology!



What is UV-C technology?

The energy produced by the sun is electromagnetic radiation with many different wavelengths. Only a small portion of these wavelengths are visible to the human eye. These visible wavelengths are seen as colors of the rainbow depending on the wavelength.

Waves longer than those seen as *red* are called *infrared*. Waves shorter than *violet* are called *ultraviolet*.

Ultraviolet light comes in different lengths too. UVA and UVB rays that can reach the earth's surface are primarily non-ionizing and do not have enough energy to ionize atoms. However the longer wave UVA and UVB can cause molecules to vibrate and rotate resulting in heating up.

UV-C is part of the ultraviolet light spectrum that is filtered out by the earth's atmosphere. The **"C"** stands for the particular frequency of UV light that kills germs. The shorter wave UVC (used in UV sterilization) light will ionize many atoms and molecules.

How does UV-C work?

UV-C light is highly effective at penetrating thin-walled germs like viruses and bacteria. The light alters the genetic structure of the germs and they die.

UV-C light is not visible to the unaided eye due to its location on the electromagnetic spectrum. But just because it cannot be seen doesn't mean it can't put up one tough fight against germs, bacteria, viruses and mold. Thanks to its germicidal wavelength (AKA frequency), UV-C is ideally located in the spectrum that best inactivates mircroorganisms and viral air contaminants.

When a virus or microorganism comes in contact with UV-C its nucleus is penetrated, and its DNA is irreparably damaged, which results in death or the inability to reproduce, as well as the spread of unwanted germs! **By applying UV-C light we are able to do more than just put up a blockade, we are able to destroy the source of the problem.**

Who would benefit from UV-C?

> Individuals who suffer from:
- **Weakened immune systems**
- **Allergies**
- **Asthma**

> Households with:
- **Babies & Children**
- **Pets**
- **Elderly**