Do Air Purifiers with UV Rays Actually Help?

As millions of Americans suffer from asthma and other respiratory diseases, and with the numbers being affected by the same on a steady incline, the awareness for breathing cleaner air at home is growing by the day. What this has led to is an immense growth in the air purifier industry which has now notched up sales of more than $100 million annually.

Growth and innovation comes hand in hand. It was the same with the air purifier industry too. Countless models based on different technologies have been launched in the market. Till date the most effective is believed to be the ones with HEPA filters working in combination with ultraviolet light.

HEPA filters are very effective when we consider particulates of above0.3 microns. But any particulate smaller than 0.3 microns are not trapped by the HEPA filter and there needs to be a back up. The ultraviolet light helps here. The concept is that ultraviolet rays will alter the DNA and RNA profiles of the microorganisms smaller than 0.3 microns. Altering the DNA and RNA profiles would make such organisms sterile and consequently harmless. However, the big issue is, whether the ultraviolet ray is effective enough.

The fact is that it has been proved conclusively that ultraviolet light can successfully sterilize germs, bacteria mold and viruses under suitable conditions. The suitability depends on the intensity of the UV light and the time through which the organism is treated with the light. The dosage and exposure together decide whether the ultraviolet light is effective enough to sterilize the microorganisms.

Question is whether inside a filter the ultraviolet light gets the ideal condition to act on the microorganisms. Since there is a fan inside the filter the organisms never get a chance to settle down. Result is the UV rays do not get enough time to act continuously on the organisms. However, it is not that they are completely ineffective. The lower the fan speed the higher will be the effectiveness in sterilizing the organisms.

Another alternative is to flood the filter with ultraviolet light so that nothing gets the option to escape from the filter. But there is a downside to this as well. Chances are that the materials inside the filter will get severely damaged due to this constant exposure to UV light.

So we can conclude that UV rays do work, but only up to a certain level.

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About the Author

Jason Uvios Writes about on Do Air Purifiers with UV Rays Actually Help? to visit :- http://www.airpurifiers-europe.info, http://www.air-purity-always.info and http://www.airpurifiers-today.info