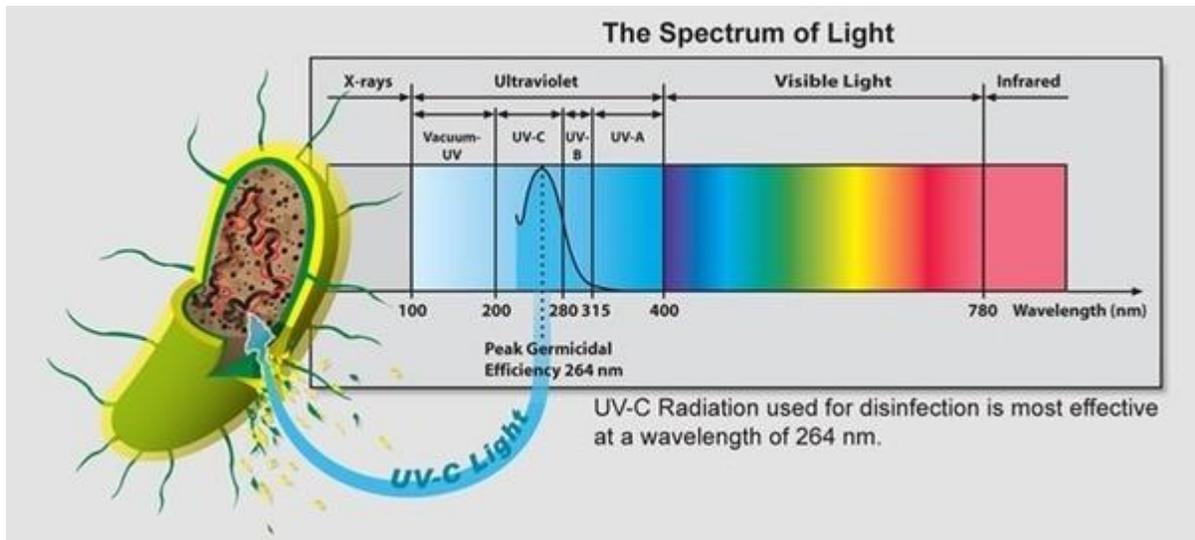




UV Light The Bug Zapper!

Ultraviolet germicidal irradiation (UVGI) is a disinfection method that uses short-wavelength ultraviolet (**UV-C**) light to kill or inactivate microorganisms such as bacteria, viruses, molds and other pathogens. The UV-C light destroys the microorganisms' nucleic acids and disrupts their DNA, leaving them unable to perform vital cellular functions.

Ultraviolet rays are part of the energy that comes from the sun. The UV spectrum is a spectrum of ultraviolet radiation characterized by higher frequency than visible light and lower frequency than x-rays. UV-C light from the sun is weak at the surface of the Earth since the ozone layer of the atmosphere blocks it. For humans, skin exposure to UV-C light can cause rapid sunburns and potential skin cancer, while exposure of the eyes to UV radiation can cause severe pain and vision impairment. HVAC systems are often equipped with interlocks that shut-off the UV devices if the system is opened for access in order to prevent exposure.



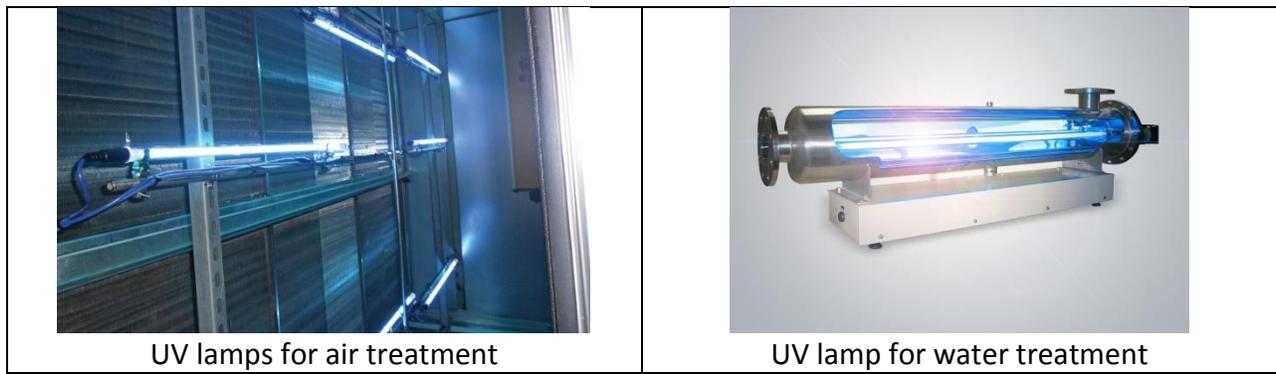
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UVGI devices are used for a broad range of applications in commercial, industrial and healthcare. The UV lamps are also commonly installed in new or existing HVAC systems, which can be a breeding ground for illness-causing pathogens, and contaminants that aggravate asthma and other respiratory ailments. By using germicidal wavelengths of 264nm, the lamps attack airborne pollutants and mold spores, rendering them unable to reproduce.

UVGI is also being utilized for water purification; however, when used alone, UV radiation does not improve the taste, odor, or clarity of the water. Furthermore, there is no residual disinfection in the water to inactivate bacteria that may survive or may be introduced after the water passes by the light source. It is thus preferable to use a UV device with water treated by chlorination which is resistant to reinfection.



UV lamps are offered with Neptronic products. It is a standard feature with the Hot Climate Tower (HVV models), which is used for hot yoga applications, and as an option for evaporative humidifiers (SKV models).

References:

Frequently asked questions (n.d.). *American Ultraviolet*. Retrieved from <https://www.americanultraviolet.com/uv-germicidal-solutions/faq-germicidal.cfm>

Ultraviolet germicidal irradiation (November 16, 2017). *Wikipedia*. Retrieved from https://en.wikipedia.org/wiki/Ultraviolet_germicidal_irradiation

The various uses for UV light (n.d.). *Light Sources*. Retrieved from <https://www.light-sources.com/blog/the-various-uses-for-uv-light/>

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