Green Tips

Protecting Yourself from Your Air Conditioner

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As temperatures rise during the summer months, people frequently turn to their air conditioners to seek refuge from the heat. However, most users are unaware of the potential risks associated with improper or overuse of their units.

Poor air quality is a well-established risk factor for multiple adverse health outcomes including respiratory, cardiovascular, rheumatic, and neoplastic conditions [1-5]. Although AC units can reduce the air temperature in your home, excessive moisture removal can create dry air capable of irritating skin and mucus membranes while simultaneously creating an optimal environment for mold and bacterial growth inside the unit [6]. Improper maintenance including inadequate filter replacement leads to accumulation of dust mite allergens which, over extended periods of time, can lead to asthma [7]. Additionally, it is known that the refrigerants in most home air conditioning units utilize chlorofluorocarbons and hydrochlorofluorocarbons which deplete the planet's ozone layer. Consequently, this may cause an increased concentration of harmful ionizing radiation that can lead to increased skin malignancies [8-9].

How to Protect Your Patients, Yourselves and the Planet

The best way to stop your air conditioning system from creating an environment poised to negatively impact your health is to maintain the system according to its guidelines. Advise your patients to check their filters regularly, at the beginning and throughout the cooling season. Regularly changing filters can reduce indoor air pollution and have a positive impact on cardiovascular health [10]. Because air conditioners recycle the air within your home, if you live in a low-pollution area, you can improve your indoor air quality by frequently allowing unfiltered air into your home [11]. If you live in a higher pollution area, consider more frequent filter changes or using a HEPA air purifier (non-ionizing) in conjunction with your unit. You can extend the life of your filters by avoiding excessively running your air conditioner. This can best be accomplished by setting the unit to a higher target temperature on hotter days during the summer months and turning the unit off at night and when you leave the home.

The Environmental Protection Agency has made efforts to reduce utilization of dangerous refrigerants in AC units, so ensuring your unit is up to date can help minimize further damage to our ozone layer [12]. Patients should be made aware of these factors during extreme weather events and at well visits.

Following the latest Center for Disease Control (CDC) recommendations can help provide protection from dangerous indoor air pollutants [13-14]:

- Change air filters every 3 months or according to the manufacturer's instructions
- Open doors or windows to increase fresh air in your home
- Use portable high-efficiency particulate air cleaner
- Use pleated air filters
- Have your system inspected every year by a professional

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