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TITLE OF ABSTRACT

The Effectiveness of an Integrated Energy Recovery Ventilator on the Air Quality in the Bedroom of Asthmatic Children, 5–14 years, and Their Improved Respiration and Restfulness (Pilot Study Results)

AUTHORS

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ABSTRACT

Air Innovations is collaborating with Clarkson University on testing HEPAiRx™ units to determine its effectiveness in improving respiration and restfulness.

HEPAiRx is a portable, floor-mounted system designed to increase the amount of fresh air in a room to: dilute concentrations of VOCs and other gases without significant energy consequences; filter the fresh air and re-circulating room air to eliminate airborne particles; create a slight positive pressure to minimize infiltration of airborne contaminants from the kitchen and bath; and, independently control temperature and humidity for occupant comfort.

Clarkson has identified families with asthmatic children to participate in the tests. HEPAiRx units are installed in the children's bedrooms and researchers are collecting and analyzing the collected data to ascertain the effect of the unit on air quality and acute respiratory system response. The testing includes: peak flow rate measurements and exhaled breath condensate samples for markers of respiratory inflammation; heart rate monitoring to indicate sleep restfulness; and, IAQ monitoring.

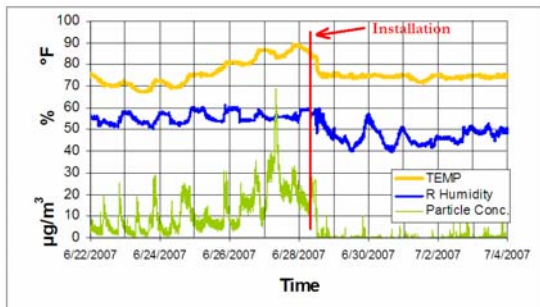
*HEPAiRx is a registered trademark of Air Innovations and is patent pending.
HEPAiRx R&D is funded in part under a contract award by the NYS Energy Research and Development Authority
and the Syracuse Center of Excellence Office for Industry Collaboration
under its Technology Application and Demonstration grant program.*

HEPAiRx Room Air Purifier

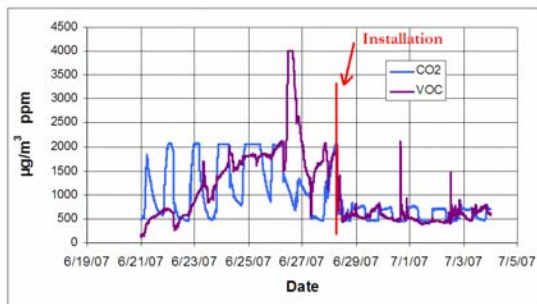
For Relief of Asthma and Allergy Symptoms

HEPAiRx™ is the first and only room air conditioner designed specifically to help relieve the symptoms of asthma and allergies caused by airborne contaminants. This portable unit:

- Increases fresh air in the bedroom to dilute concentrations of VOCs (e.g., cooking gases) that can trigger a respiratory episode
- Filters and re-circulates fresh air in the bedroom through 99.97% efficient HEPA's to eliminate outside dust and pollen
- Creates a slight positive pressure to prevent infiltration of pollutants from elsewhere in the home
- Cools, heats and dehumidifies bedroom independent of home's HVAC system for occupant comfort
- Includes integrated air-to-air heat recovery exchanger to reduce energy costs



(left) Early research findings show HEPAiRx significantly improves air quality in children's bedrooms shortly after unit is turned on. (top) Typical room installation during research trial.



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