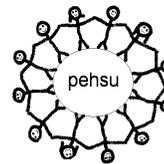




**Children's  
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April 22, 2010  
Eastchester Town Hall  
40 Mill Road, Eastchester, New York 10709

Dear Eastchester Town Board members,

**Re: Medical Grounds for a Restriction on Internal Combustion Power  
Tools and Leaf Blowers**

We are writing in support of Eastchester Environmental Committee Resolution 2010-1, supporting a limit on the use of internal combustion power tools and a ban on the use of leaf blowers between May 15<sup>th</sup> and September 15<sup>th</sup> in the Town of Eastchester. Such an action in parallel with many other communities that already have restrictions in place in Westchester County, could improve the health of the residents of the Town of Eastchester, and in particular, the respiratory health status of children.

We are pediatricians, industrial hygienists, and a social worker, and we are writing this letter on health effects associated with gasoline-powered leaf blowers on behalf of the Mount Sinai Pediatric Environmental Health Specialty Unit (PEHSU).

The Mount Sinai PEHSU is a medical resource in environmental pediatrics for children, parents, pediatricians, healthcare providers, schools, government agencies and community organizations. We provide diagnostic and treatment services to children who have disease of environmental origin or who have suffered toxic environmental exposures.

We also have the mission of providing trustworthy, scientifically credible information about environmental health threats to parents, teachers, elected officials and policy makers to enable well-informed decisions on behalf of our children. We are supported by the federal Centers for Disease Control and Prevention (the CDC). We are established by CDC as a resource for federal Region II, which includes New York, New Jersey, Puerto Rico and the Virgin islands. Our unit is one of only eleven such units in the country.

Internal combustion power tools and leaf blowers (“equipment”) pose multiple hazards to human health. Children are the most susceptible members of our population to these hazards because they breathe more air per pound of body weight per day than adults and thus inhale more of any pollutants that are thrown into the air by this equipment. Children’s vulnerability to the health effects of this equipment is further magnified by the

fact that they are passing through the stages of early development, and thus their lungs, ears, eyes, and other organ systems are inherently more sensitive to environmental hazards than the organs of adults. The hazards associated with leaf blowers and some internal combustion power tools include

1. Airborne pollutants. Leaf blowers create large volumes of airborne particulates, many of which are respirable. Inhalation of these small airborne particles can provoke asthma and other respiratory diseases in children and can increase the severity of chronic lung disease in our elderly. Some of the other potential pollutants from leaf blowers and internal combustion power tools are carbon monoxide, nitrogen oxides, hydrocarbons, and, even, ozone formed from some of these other pollutants. Even lower level exposures have been associated with respiratory and central nervous system effects. These types of exposures would vary based on weather, wind, use or nonuse of protective gear and type of machine used. In general, children are more vulnerable to such exposures because they breathe faster, are rarely wearing protective equipment, are closer to the ground, and have still developing organs.
2. Noise. Noise is a second hazard associated with much of this equipment. Manufacturer estimates of noise levels from leaf blowers for bystanders 50 feet away are about 70 dB and, of course, the noise is louder if residents are closer. The World Health Organization recommends general daytime outdoor noise levels of 55 dB or less. Noise may affect quality of life by impairing communication, reducing accuracy of complex tasks, and increasing stress. The intense, high frequency noise that leaf blowers generate can cause loss of hearing in the workers who operate these machines and can also affect hearing in children and other persons. The ears of infants and young children are especially vulnerable to the high intensity noise that leaf blowers produce because their auditory systems are undergoing rapid growth and development, and these developmental processes are easily disrupted.
3. Eye hazards. Because of the high energy they generate, leaf blowers can propel pebbles and small sticks many feet into the air to cause serious eye injury. Workers and young children are the most vulnerable.

For all of these medical reasons, and especially to protect our children, we urge you to take action to restrict the use of leaf blowers to 9 months of the year and to limit the use of internal combustion power tools to specified times of the day in the Town of Eastchester.

Sincerely,  
Perry Sheffield, MD  
Maida Galvez, MD, MPH  
Philip J Landrigan, MD, MSc  
Joel Forman, MD  
Amir Miodovnik, MD

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