FOCUS on lung health

AMERICAN LUNG ASSOCIATION® of Illinois

LEAF BURNING

Studies by the Environmental Health Center and American Thoracic Society, the medical branch of the American Lung Association, have found that the levels of pollutants, organic aldehydes, ketones, and particulate matter produced by leaf burning result in an increase in acute respiratory illness, especially in traditionally vulnerable populations, like preschool-school children and older adults. *Forty-two percent of all Illinois residents have lung disease, heart ailments or allergies, and are highly susceptible to the harmful effects of leaf burning.*

Leaf burning produces large amounts of carbon monoxide(CO), polynuclear hydrogen (PNH) compounds and particulate matter. Exposure to carbon monoxide has stronger negative effects on people suffering from asthma, emphysema, bronchitis or heart disease. PNH compounds are known to cause cancer. Particulate matter is composed of tiny bits of ash, dust or leaf that can seriously irritate nose, throat and lung tissue. Further, leaf burning generates 130 pounds of carbon monoxide, and 11 pounds of hydrocarbons and 20 pounds of particulate matter for every ton of leaves burnt. Depending on conditions, the amount of these pollutants can increase by as much as 400%.

Lung disease is the third leading cause of death in America, and the mortality rate for lung disease is rising faster than any of the other top ten causes of death. Over ten percent of the population suffers from some form of chronic lung disease. Some 15 percent of children under 15 years of age suffer from asthma alone.

Nearly all leaf burning occurs during one season (fall) and mostly on week-ends, so hundreds of pounds of leaves are burned in a period of only a few hours, creating large concentrations of pollutants. Because leaves are almost always burned at ground level, the smoke is highly concentrated. Smokestacks are required for factories that give off many of the same chemicals that are found in leaf smoke, to help fight this problem. The toxic effects of these substances are a threat to everyone's health, but potentially devastating to the 42 percent of Illinoisans who are most seriously affected by poor air quality.

Reducing leaf burning reduces the incidence of respiratory illness. This in turn lowers the number of doctor's office and emergency room visits (and their associated costs), school and workplace absenteeism, and discomfort by those who suffer from lung disease and allergies.

Alternatives to Burning

There are numerous and cost effective alternatives to burning. Leaves and yard waste biodegrade relatively quickly. Simply bagging leaves and other yard waste is an environmentally friendly way to approach this problem. Composting leaves for resale as fertilizer or mulch can offer both fiscal and environmental benefits for communities who choose not to burn. For more information on this and other alternatives to leaf burning, call your local Lung Association at **1-800-LUNG-USA**.