

Position Paper: Air Allergen & Mold Testing

There are three ways harmful substances can enter our bodies. What we eat, what we breathe, and what we touch. Many of us have been taught about the micro-ingredients in the food we eat and fluid we drink each day, but most of us are totally unaware of the micro-ingredients in the thirty to forty pounds of air we breathe each day.

What we breathe matters. Peer reviewed studies indicate airborne mold spores, chemicals, and other particulate in the indoor environment are contributing to the preventable illness of many residents. The burden of suffering and financial waste includes lost school days, lost workdays, poor performance, high pharmaceutical and medical bills, preventable Emergency Room visits, hospitalizations, and premature death.

Air Allergen has analyzed air samples from more than 20,000 locations across the Southeast. The data indicates that the indoor air often has higher quantities of mold spores associated with allergy symptoms and higher particulate counts of all particle sizes above .3 microns than the outdoor air. Recent data suggests that 50% of the homes have particulate counts above the National Ambient Air Quality Annual Standard for PM2.5 and PM10. More than 20% of the homes have particle counts above the Short-Term Standard.

A study commissioned by the National Institute of Health indicated that chemical pollution in the indoor air is often 2 to 5 times higher than the outdoor air with gusts to 100 times. Hundreds of potential chemicals have been identified. The EPA rated indoor air pollutants as third out of 30 environmental risks.

Twenty-five percent of Emergency room visits nationwide are reportedly for breathing difficulty. Grady Hospital alone sees over 40,000 ER visitors per year for breathing difficulty resulting in more than 140,000 visits to various components of their health care system and there are more than 150 hospitals in GA.

Emergency Room visits are a recognized indicator of asthma control in a community. According to one study involving 28 emergency rooms in several states, 70% of ER visits for acute asthma are from people who have been there three or more times in the previous year and 50% of visits for acute asthma are from people who have been there five or more times in the previous year. Evidence suggests many of those patients are treated, stabilized, and sent back to the environment that made them sick.

The Fulton County Asthma Coalition brought in a speaker from San Antonio to address their annual Asthma Conference. She reported that by

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addressing the indoor air quality of the schools, absenteeism in the San Antonio school system was reduced by half and the incidence of emergency intervention for asthma was reduced by 80%.

A study at Cincinnati's Children's Hospital reported that ER visits and hospitalizations for children who had been in the ER twice or hospitalized once during the previous year for asthma were reduced ten-fold compared to a control group by dealing with the indoor home environment.

Reducing ER visits is not the only societal benefit for addressing indoor air quality. Addressing conditions affecting air quality in the apartments of children who were students at an Atlanta school resulted in a 40% lower class turnover rate, and a reported 50% increase in standardized test scores. (https://www.youtube.com/watch?v=6-P7_yhMzUA).

The Atlanta Volunteer Lawyers Foundation provides legal services to families who otherwise cannot afford legal representation. They deal mostly with the south and west neighborhoods in Fulton County where many of the Grady Hospital ER patients reside. Their data indicates that 64% of their cases with tenant landlord disputes over a two-year period involved asthma and other housing issues associated with poor indoor air quality.

While breathing difficulty is the most obvious consequence of poor indoor air quality, long term exposure to the micro-ingredients found in airborne particulate has been associated with cardio-vascular disease, heart attacks, strokes, diabetes, kidney disease, COPD, and a variety of cancers. The growth rate of healthcare cost to cope with these diseases is not sustainable. Most health care solutions ignore dealing with the air we breathe in our homes where more than half of the air we breathe originates.

You might ask what causes poor indoor air quality. One reason is that we have changed the way we build homes and manage the indoor air quality, often focusing on cost and energy efficiency. For instance, we have replaced hardwood floors and plaster with carpet and cardboard covered walls. We have sealed up the homes and increased insulation to save energy, without fully dealing with the consequences to indoor air quality relating to lack of ventilation and the microbial growth that destroys the materials and damages our health.

A second issue is the focus on managing symptoms rather than preventing them by health care professionals whose education and training focuses on, and whose livelihood depends on, treatment rather than prevention. As difficult as it is to have medical personnel teach patients to eliminate the

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need for treatment, it is even more difficult when the paychecks of the medical personnel depend on providing that treatment.

The average person can do little individually about what is in the outdoor air but can control the enclosed environment of a home. Evidence-based, peer reviewed studies point to four comparatively simple strategies to reduce the health consequences of poor air quality in the built environment where we breathe 90% of our air: (1), Filtration; (2) Humidity control; (3), Make up Air; and (4) Better Housekeeping.

(Use the following links to access to the synopsis of approximately 260 studies dealing with adverse health effects relating to indoor air quality).