



# THINKING ABOUT ASTHMA

A Developer's Guide to  
Building a Healthy Home

Asthma is one of the most common childhood chronic diseases. In 2001, it affected over 6 million children under the age of 18 in the United States. One study found that 14% of Detroit elementary school students have been diagnosed with asthma. Another 14% of students have asthma symptoms without a diagnosis. A healthy home can reduce triggers of asthma symptoms. The developer is an essential participant in the creation of a healthy home and the prevention of asthma. This is true whether participating in substantial rehabilitation, renovation or new construction.

## What triggers asthma?

Asthma can be triggered by both indoor and outdoor factors. Some may be present in the environment prior to construction, and some may be exacerbated by the construction project. Things to think about include:

**Common Household Items** – Asthma symptoms are triggered by mold and dust. Properly ventilated homes and use of flooring (rather than carpeting) go a long way to create healthy environments that reduce asthma triggers.

**Particulate Matter** - Particulate matter is a form of air pollution that triggers asthmatic symptoms. Common sources include car and truck emissions. Though you cannot control external factors, you can consider them when choosing a site.

**Lead and asbestos dust** – Though these are highly toxic to all people, they can cause particular concern for asthmatics. It is good to keep all relevant rules and regulation for minimizing human exposure to all types of dust.

## Other Information Sources for Developers

- For information about air quality: Michigan Department of Environmental Quality's Detroit Office (313) 456-4700
- For information about lead: <http://www.hud.gov/offices/lead/>
- U.S. Green Building Council: <http://www.usgbc.org/>
- For a sample list of green building materials: <http://designcoalition.org/orders/samplelist.pdf>

### Resources:

The Alliance to End Childhood Lead Poisoning, "Essential Maintenance Practices for Property Owners" (2003). <http://www.aeclp.org/>  
Asthma Regional Council, "Property Maintenance for a Healthy Home" (2003).  
Community Action Against Asthma, "Fact Sheet on 'Particulate Matter'" (2002).  
[www.healthybuilding.net](http://www.healthybuilding.net)  
[www.buildinggreen.com](http://www.buildinggreen.com)

## What steps can a developer take?

### Examine the Location for External Asthma Triggers.

The Michigan Department of Environmental Quality Air Quality Division provides good information about the local air quality.

**Hire an Environmental Consultant.** Engage an environmental consultant early in the building process. Early engagement of the environmental consultant saves time and money, and can prevent liability issues.

**Conduct Surveys.** Prior to engaging in renovation or substantial rehabilitation, ensure that surveys are conducted to detect lead and/or asbestos problems. Lead and asbestos surveys should not only address the issue of presence, but also the condition of the problem.

**Use Safe Paint Removal Practices.** Unsafe practices include: open flame burning, power sanding or sandblasting without a HEPA vacuum attachment, water blasting, or dry scraping more than one square foot per room.

**Prevent the Spread of Lead Dust.** This can be done by limiting access to the work area to workers only, having workers wear protective clothing that is removed before leaving the work area, covering the work area with six mil polyethylene plastic, wetting painted surfaces before disturbing, and wetting debris before sweeping.

**Use Green Building Materials.** Green building is a collection of construction strategies, building design, and land use that reduces negative impacts on the environment. PVC, which is found in vinyl flooring and siding, has been linked to asthma symptoms. Other toxic materials that may trigger asthma include formaldehyde in plywood and other composite woods, volatile organics in glues, paints and finishes.

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