Fresh Airways

O WONDER CLEVELANDERS have a hard time breathing easy.

Indoor air fouled by tobacco smoke, mold spores and dust mites. Outdoor air polluted by carbon monoxide.

"In terms of overall air quality, Cuyahoga County does not score well with the U.S. Environmental Protection Agency," says Dr. Fred Hsieh, a staff physician at the Cleveland Clinic’s Respiratory Institute. And because of it, we’re more likely to suffer from asthma.

In Cleveland, 9.2 percent of adults and children have asthma, according to 2006 data published in "Asthma in Cleveland," a study by the Center for Health Promotion at Case Western Reserve University. That’s compared with 7.7 percent of adults and children cited in 2005-2007 Centers for Disease Control statistics for the whole U.S.

Researchers are still trying to determine whether the inflammatory lung disorder is inherited or developed over time.

"If your parents had asthma, you are more likely to have asthma than someone whose first-degree relatives did not," Hsieh says. "But there are very important environmental considerations that play a role. We believe, for example, that children who are exposed to tobacco smoke in the home are more likely to develop asthma than children who aren’t."

To combat the problem, the Clinic is participating in investigative trials for lab-engineered antibodies that bind to inflammation-causing proteins in the bloodstream, allowing them to be eliminated from the body instead of contributing to airway constriction.

The same goes for bronchial thermoplasty, a procedure in which a bronchoscope inserted into the lungs "burns" muscle around targeted airways.

But the common treatment remains a combination of anti-inflammatory medications, "rescue" inhalers and avoidance of environmental triggers.

"Asthma is almost never cured in the sense that an infection is cured with an antibiotic," Hsieh says. "But in most cases, it’s a very manageable condition."

— Lynne Thompson