## Allergic population on the rise, but so are medical advances

As a child, Wesley Cianchette of Baldwin dealt with severe asthma, and a host of environmental components could trigger attacks that left him breathless.

Anything from excessive smoke to extreme pollen could have his mother scrambling for his inhaler to help the now 24-year-old Mr. Cianchette take in air.

Allergic reactions run in the family of the 2002 graduate of Calvert Hall College High School, Towson. His aunt, great-uncle and numerous cousins on his mother's side have some form of allergies.

"Allergic disease is a genetic disease," said Dr. Baruch Friedman, division chief of clinical immunology/allergy at Good Samaritan Hospital in Baltimore. "If one parent has allergies, there is about a 33 percent chance their offspring will have allergies. If both parents have allergies, there is a 66 percent chance. There is obviously a genetic component."

With 20 percent of the U.S. population having one allergy or another, Dr. Friedman said research data shows an increase in the proportion of Americans with such ailments in the past half century.

"Larger cities seem to have more people with allergic disease and asthma," the 49-year-old doctor and Owings Mills resident said. "Data suggests that vehicle exhaust fumes may be a contributing factor. Inner cities where people have more exposure to vehicle exhaust have a higher frequency of allergies."

Humans develop allergies when an excessive activation of certain white blood cells called mast cells and a type of antibody, known as IgE (Immunoglobulin E), result in an extreme inflammatory response, Dr. Friedman said.

The most common allergic reactions come from pollen, pet dander, bee venom, certain medications, and some foods, including shellfish and peanuts, he said.

Conditions such as asthma, in which allergy plays a major role, are also common, Dr. Friedman said.

Localized reactions can be as mild as hives, rashes, itchy noses and minor swelling, he said.

However, severe allergies to environmental or dietary allergens, or to medication, can result in life-threatening anaphylactic reactions, Dr. Friedman said.

Allergic reactions do not happen at the first exposure, he said.

"It takes time for someone to become sensitized," Dr. Friedman said. "Let's say someone is allergic to peanuts. They could eat a few peanuts a couple of times and be fine, but then that third time they can have a violent reaction."

Treatments for allergies include allergen avoidance, use of antihistamines, steroids or other oral medications, epinephrine auto-injector (EpiPen), immunotherapy to desensitize the response to an allergen and targeted therapy, he said.

"We've made great strides in treating people with allergies in recent years, and new drugs and therapies are providing great relief for those with allergic disease," Dr. Friedman said. "But, people with these allergies do need to be vigilant. So many people forget to carry their EpiPen, and if they have anaphylactic reactions, that can be deadly."