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Allergy and asthma risk is in the genes and how the environment interacts with them

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Are men healthier than women when it comes to allergies and asthma? Is one sex genetically at higher risk for chronic allergic illness? There are many differences between men and women. And when it comes down to health, one gender seems to be more prone to allergies and asthma.

According to a presentation being given at the Annual Scientific Meeting of the American College of Allergy, Asthma and Immunology (ACAAI), adult females are at higher risk for allergies, asthma and autoimmune diseases.

"More prepubescent males have rhinitis, asthma and food allergy than females," said presenter Renata Engler, MD, allergist and ACAAI Fellow. "However, roles change. When females enter young adulthood, they outnumber men in these chronic illness categories."

Why are women at higher risk for allergy and asthma post puberty? The reasons for gender-differences in disease risk and immune responses are complex and vary with age. IgG immune responses to vaccines are enhanced in women compared to men but IgE levels are actually higher in asthmatic men than in women. The important message is that in order to improve personalized care of patients, improving understanding and impact of gender diversity on diagnosis, treatment and outcomes is needed. One size fits all is not the best approach.

"The importance of sex differences in the practice of allergy-immunology cannot be overstated," said Dr. Engler. "Improved

sex/gender based medicine and research practices will benefit men and women alike."

Genetics, aside from sex hormones, play a role in determining who will develop allergy and asthma. According to ACAAI, if parents have either of these chronic illnesses, their children are at an increased risk.

In her presentation, Dr. Engler stated personalized medicine is more than just in the genes. Because allergy and asthma manifest in each person differently, it is important sufferers see an allergist. Proper treatment involves more than just relieving symptoms, but finding the source of the suffering and developing individualized care plans to avoid symptom triggers.

Provided by American College of Allergy, Asthma, and Immunology