

Allergen Immunotherapy (IT) for Children

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Numerous studies have shown that immunotherapy for children is effective and well-tolerated. It has been shown to prevent the new onset of allergen sensitivities in monosensitized patients, as well as progression from allergic rhinitis to asthma. ¹

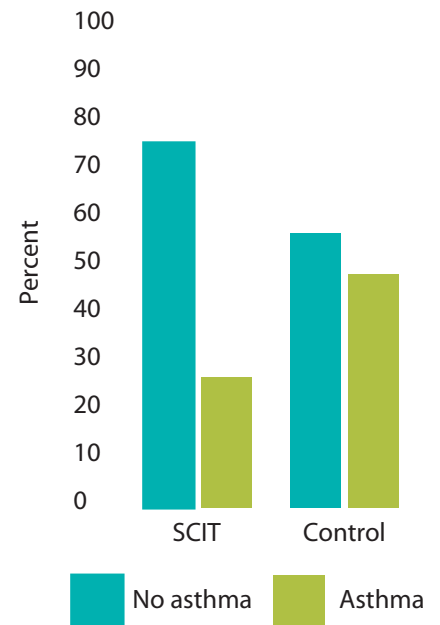
Immunotherapy has been studied and proven to be effective in children.

A total of 205 children aged 6-14 years from six pediatric centers after a baseline season were randomized to three years of subcutaneous immunotherapy (SCIT) or a control group. The children had a clinical history of seasonal allergic rhinoconjunctivitis. Further inclusion criteria were positive skin (prick) test and conjunctival provocation test (CPT) results. ²

Results from the Preventive Allergy Treatment study

Patients without asthma before the start of SCIT were analyzed for the development of asthma after a 10 year period. The number of patients who developed asthma among controls was 45% and in the actively treated with SCIT group, 25% developed asthma. ²

The study concluded that SCIT for three years shows persistent long-term effect on clinical symptoms after termination of treatment and long term, preventive effect on later development of asthma in children with seasonal rhinoconjunctivitis. The study says that SCIT should be recognized not only as first line therapeutic treatment for allergic rhinoconjunctivitis, but also as secondary preventive for respiratory allergic diseases. ²



20%

of all children with rhinoconjunctivitis develop asthma later in life ²

There are

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studies that conclude children are at a higher risk to experience SR with conventional SCIT than other age groups ¹

Studies of children receiving allergen immunotherapy have demonstrated: ¹

Improvement in symptom control for asthma and allergic rhinitis.

Decrease in the risk of asthma.

Decrease in the development of new sensitivities.

Modification in the release of mediators in children receiving immunotherapy that correlates with decreased clinical symptoms.

Reduction in pharmacy, outpatient and total healthcare costs.

Asthma is the most common pediatric chronic illness, affecting **6.2** million children in the United States ⁴

27% of UAS patients on IT are pediatric patients (2-17 years of age)

UAS Pediatric Safety

UAS analyzed the systemic reaction rate of 15,000 pediatric patients (from six to 17 years of age) utilizing the physician approved proprietary UAS immunotherapy protocol.

Results

Total of 10 systemic reactions (eight patients had grade 2 and two patients had grade 1).

Therefore 10/15,000 resulted in 0.06% systemic reactions in pediatric patients. Reported literature of systemic reactions by allergists is between 3-7% for all age groups.

Results based on the **World Allergy Organization Subcutaneous Immunotherapy Systemic Reaction Grading System**, which aids physicians and allergists in determining the severity of a patient's reaction to SCIT. This five step graduated evaluation process helps physicians identify early stage reactions, such as an itchy throat and nausea, to more serious complications such as respiratory failure or hypotension.

Pediatric allergic rhinitis and its comorbid disorders: ⁵

Conjunctivitis	Otitis media
Pharyngitis	Lymphoid hypertrophy/obstructive sleep apnea
Sinusitis	Speech impairment
Asthma	Failure to thrive
Eczema	Reduced quality of life

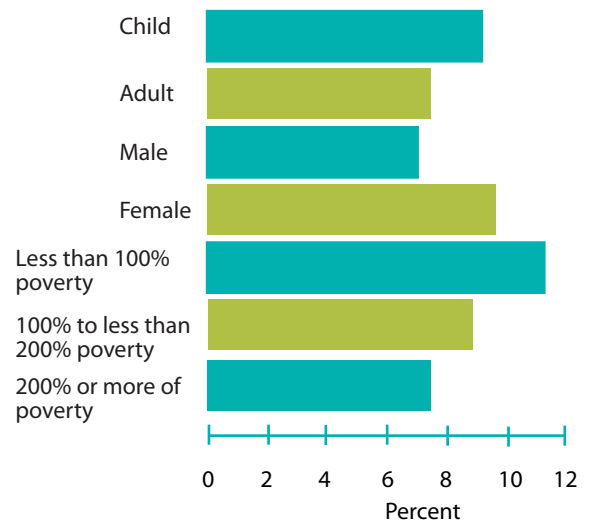
Patient Testimonial

My five year old son is on IT and our experience is pretty easy. The allergy test was quick and pain free. Our CAS is very informative, answered all of our questions and is very good with my son. She was very good at showing us how to do the shots at home and my son is actually a pro at taking the shots. He is usually TERRIFIED of needles. I am confident they are going to help him and I would recommend IT to anyone who needs it. – Mother of a pediatric patient in Waco, TX

Asthma Prevalence is higher among children, females and those with family income below the poverty level.

Children aged 0-17 had higher asthma prevalence than adults aged 18 and over for the period 2008-2010. Females had higher prevalence than males. Asthma prevalence is higher for groups with lower income-to-poverty level ratios: While 11.2% of those with incomes less than 100% of the poverty level had asthma, asthma prevalence was 8.7% for persons with incomes 100% to less than 200% of the poverty level, and 7.3% for persons with incomes at least 200% of the poverty level. ³

Prevalence of Asthma



1. Allergen immunotherapy: A practice parameter third update. Linda Cox, M.D., Harold Neson, M.D. and Richard Lockey, M.D. American Academy of Allergy, Asthma & Immunology. September 23, 2010.
2. Specific Immunotherapy has long-term preventive effect on seasonal and perennial asthma: 10-year follow-up on the PAT study. L. Jacobsen, B. Niggemann, S. Dreborg, H.A. Ferdousi, S. Halcken, A. Host, A. Koivikko, L.A. Norberg, E. Vaklovirta, U. Wahn, C. Moller. 2007
3. Trends in Asthma Prevalence, Health Care Use, and Mortality in the United States, 2001-2010. Lara J. Akinbami, M.D., et. al. Centers for Disease Control and Prevention.
4. The Johns Hopkins University. <http://www.hopkinschildrens.org/environmental-allergens.aspx>
5. Lack G. J Allergy Clin Immunol 2001;108:S9-15