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# How Strong is the Evidence That Immunotherapy in Children Prevents the Progression of allergy and Asthma

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Abstract and Introduction

## Abstract

**Purpose of Review:** The purpose of this review is to describe the scientific evidence that specific **immunotherapy can prevent the development of asthma** in patients suffering from rhinoconjunctivitis and well as **reduce the number of new allergies developing**.

**Recent Findings:** Proposed strategies for the prevention of the development of the development of allergic rhinoconjunctivitis and asthma include allergen avoidance, pharmacological treatment (antihistamines and steroids) and specific immunotherapy. Long-term follow-up on immunotherapy studies demonstrates that specific immunotherapy for 3 years shows persistent long-term effects on clinical symptoms after termination of treatment and long-term, preventive effects on clinical symptoms after termination of treatment and long-term, preventive effects on later development of asthma in children with seasonal rhinoconjunctivitis, It is so far the only treatment for allergic diseases that has been shown to be able to prevent worsening of disease and development of asthma. Also, specific immunotherapy seems to reduce the development of new allergic sensitivities as measured by the skin prick test as well as specific IgE measurements.

**Summary:** Specific immunotherapy is the **only** treatment that interferes with the basic pathophysiological mechanisms of the allergic disease and thereby carries the potential for changes in the long-term prognosis of respiratory allergy. Specific immunotherapy should be recognized not only as **first-line therapeutic treatment** for allergic rhinoconjunctivitis, but also as secondary **preventive treatment for respiratory allergic diseases**.

## Introduction

Symptoms of allergic rhinitis and asthma are caused by an exacerbation of continuously ongoing inflammation driven by natural immunological mechanisms. This reaction causes antigen-mediated activation of mast cells, basophils and eosinophils.

Understanding the complexity of the allergic disease is crucial in order to offer the patient with allergy the optimal treatment that interacts with the basic immunological condition as well as the symptomatology. The optimum treatment of allergy increases quality of life by reducing the primary symptoms and the need for medication, but the treatment should also influence the basic immunological allergy syndrome by changing the immunological condition. Symptomatic drugs may decrease symptoms; however, the diagnostic tools available offer excellent possibilities for treating the patient in a specific way and changing the natural course of the systemic disease. The treatment of inhalant allergy, together with education of the patient, should include avoidance of allergens, elimination treatment, treatment of symptoms and allergen specific immunotherapy (SIT) as the treatment of the immunological cause of the allergic disease.