# RISK FACTORS FOR ATOPIC DERMATITIS IN CHILDREN

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**Abstract**. Atopic dermatitis is one of the most common chronic allergic diseases in children, with increasing prevalence worldwide. Identification of risk factors is essential for early diagnosis and prevention.

To identify major risk factors associated with the development of atopic dermatitis in children and evaluate their impact on disease progression.

**Keywords:** atopic dermatitis, children, risk factors, allergy, IgE, genetics, environmental factors, prevention.

## Introduction

Atopic dermatitis is one of the most common allergic diseases in childhood, and its prevalence has significantly increased in recent years [1,3,6,8]. According to global epidemiological data, atopic dermatitis affects approximately 10–25% of children and often begins in early childhood. The development of atopic dermatitis is multifactorial and is associated with genetic predisposition, immunological abnormalities, environmental exposure, and external triggers. Therefore, identifying risk factors for atopic dermatitis is essential for early diagnosis and prevention of disease progression [2,4,5,7].

The aim of this study was to identify the main risk factors associated with the development of atopic dermatitis in children and to assess their impact on disease progression. The study was conducted during 2023–2025 at the Republican Specialized Scientific and Practical Center of Allergology and Clinical Immunology. A total of 140 children aged 3–12 years diagnosed with atopic dermatitis were included in the study.

The control group consisted of 40 healthy children. Clinical examinations, laboratory findings, and detailed medical histories were analyzed for all participants. Family history, perinatal factors, nutritional characteristics, environmental conditions, and allergic comorbidities were evaluated.

**Materials and Methods:** The study included 140 children aged 3–12 years with atopic dermatitis and 40 healthy controls examined during 2023–2025. Clinical data, laboratory findings, and medical history were analyzed. Genetic, perinatal, environmental, nutritional, and immunological risk factors were evaluated.

The results of the study demonstrated that genetic predisposition was one of the most significant risk factors for atopic dermatitis. Allergic diseases in parents were identified in 62.8% of cases. Among them, bronchial asthma was observed in 18.5%, allergic rhinitis in 21.4%, and atopic dermatitis in 22.9% of parents. The presence of a positive family history significantly increased the risk of atopic dermatitis in children ($p<0.05$).

Analysis of perinatal factors revealed that early artificial feeding was observed in 48.6% of children. Insufficient breastfeeding may contribute to impaired skin barrier function and increased susceptibility to allergic diseases. Additionally, 32.1% of children with atopic dermatitis were delivered by cesarean section, which may influence immune system development and microbiota formation.

Environmental factors also played an important role in disease development. The study found that 58.5% of children lived in urban or industrial areas. Air pollution, household dust, pet dander, and exposure to chemical agents were associated with increased risk of atopic dermatitis.

Nutritional factors were also evaluated. Food allergies were identified in 44.2% of children. The most common food allergens included dairy products (28.4%), eggs (17.1%), citrus fruits (14.3%), and chocolate (12.8%). In addition, consumption of

processed foods, artificial additives, and preservatives contributed to increased risk of atopic dermatitis.

Immunological factors demonstrated elevated total IgE levels in 74.3% of children and eosinophilia in 61.4% of cases, indicating active allergic inflammation. Frequent respiratory infections were reported in 52.8% of children, suggesting impaired immune function and increased susceptibility to allergic diseases.

Social and lifestyle factors were also associated with increased risk. High indoor humidity, use of synthetic clothing, inadequate skin care, and poor hygiene practices contributed to disease development. Additionally, psychological stress and emotional factors were associated with increased recurrence and disease severity.

The findings of this study suggest that atopic dermatitis in children develops due to a combination of multiple risk factors. Genetic predisposition, early artificial feeding, environmental exposure, food allergies, and immune dysfunction were identified as the main contributors. Early identification of these risk factors and implementation of preventive strategies may reduce the incidence and severity of atopic dermatitis.

**Results:** Genetic predisposition was identified in 62.8% of cases. Early artificial feeding was observed in 48.6% and cesarean delivery in 32.1% of children. Environmental exposure was detected in 58.5% of cases. Food allergy was found in 44.2% of children. Elevated IgE levels were observed in 74.3%, and eosinophilia in 61.4% of patients. Frequent respiratory infections were reported in 52.8% of children.

**Conclusion.** In conclusion, atopic dermatitis in children is a multifactorial disease influenced by genetic, environmental, immunological, and nutritional factors. Comprehensive assessment of risk factors allows early diagnosis, prevention, and development of personalized management strategies, ultimately improving clinical outcomes and quality of life in affected children.

Atopic dermatitis in children is associated with multiple risk factors including genetic predisposition, environmental exposure, nutritional factors, and immune dysfunction. Early identification of risk factors may improve prevention and disease management.

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