

# Sensitization to common allergens among patients with allergies in major Iranian cities: a systematic review and meta-analysis

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## Abstract

Various allergens are implicated in the pathogenesis of allergic diseases in different regions. This study attempted to identify the most common allergens among patients with allergies based on the results of skin prick tests in different parts of Iran. Relevant studies conducted from 2000 to 2016 were identified from the MEDLINE database. Six common groups of allergen types, including animal, cockroach, food, fungus, house dust mite, and pollen were considered. Subgroup analysis was performed to determine the prevalence of each type of allergen. The Egger test was used to assess publication bias. We included 44 studies in this meta-analysis. The overall prevalence of positive skin test results for at least one allergen was estimated to be 59% in patients with allergies in various parts of Iran. The number of patients was 11,646 (56% male and 44% female), with a mean age of 17.46 +/- 11.12 years. The most common allergen sources were pollen (47.0%), mites (35.2%), and food (15.3%). The prevalence of sensitization to food and cockroach allergens among children was greater than among adults. Pollen is the most common allergen sensitization in cities of Iran with a warm and dry climate; however, sensitization to house dust mites is predominant in northern and southern coastal areas of Iran.

## Keywords

**Author Keywords:** Allergens; Cockroaches; Fungi; Pollen; Hypersensitivity; Iran