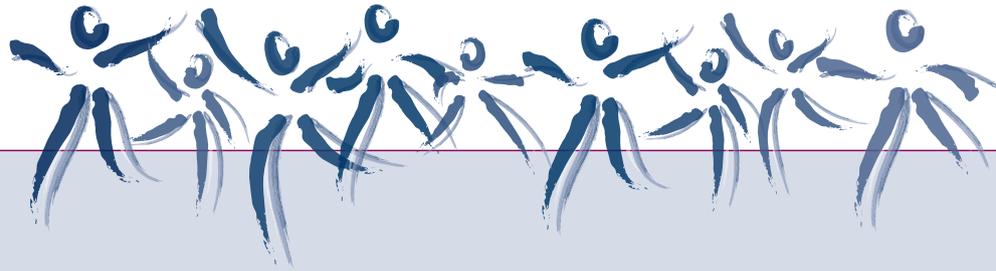


7. Tobacco smoke and occupation as risk factors for asthma



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Key points

- People with asthma continue to smoke at least as commonly as people without asthma, despite the known adverse effects.
- The prevalence of smoking is higher among younger people with asthma than older people with asthma.
- Socioeconomic position is a strong determinant on the risk of smoking among people with asthma.
- An estimated 11% of children with asthma reside in homes where smoking occurs inside the home.
- Nearly 10% of adult-onset asthma is caused by occupational exposures and, hence, could be avoided if exposure to triggering agents in the workplace was eliminated.
- Occupational asthma is the one truly preventable form of the disease.

Introduction

While the underlying causes of asthma are still not well understood, environmental and lifestyle factors, as well as constitutional factors such as an allergic tendency, may increase the risk of developing asthma. Among those with the condition, airway narrowing and symptoms can be triggered by a wide range of exposures and other factors. These include specific allergens, such as house dust mites, pollens, mould spores, animal dander and occupational allergens, viral infections, irritants, such as tobacco smoke and other air pollutants, exercise and some food additives.

The environmental causes of asthma have been extensively investigated and reviewed (NSW Health Dept 1997; Peat 1994; Rural and Regional Health and Aged Care Services Division 2004). The subject remains controversial with conflicting evidence on the effects of exposure to pets and other allergen sources, the protective effects of breastfeeding and other aspects of diet and feeding, overweight and obesity, and the role of infections in childhood. A number of randomised controlled trials evaluating the effects of specific interventions for the prevention of asthma have been conducted but the findings are either negative or inconclusive. Without clear evidence of an important, avoidable causal role in asthma, these factors are not suitable targets for surveillance and have not been included in this report. Apart from environmental tobacco smoke exposure in children and smoking in adults, this publication does not report on these factors.

On the other hand, exposure to occupational allergens has been conclusively linked both to the development of asthma, *de novo*, and to progression of the disease. Since this is a potentially avoidable cause of asthma, exposure to occupational allergens and the occurrence of occupational asthma are important targets for surveillance.

In this chapter, we present data on smoking among people with asthma and exposure to environmental tobacco smoke among children with asthma. We also discuss occupational exposure as a risk factor for the development of asthma in adulthood.