

A mother's occupation while pregnant can cause asthma in children

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Mothers who are exposed to particular agents during pregnancy could give birth to children with a higher risk of asthma, according to new research.

The study will be presented today (26 September 2011) at the European Respiratory Society's Annual Congress in Amsterdam.

It is well known that when people are exposed to certain substances and chemicals it can cause asthma. However, there has been little research investigating whether a mother's work exposure during pregnancy can lead to asthma in their children.

This research, carried out by scientists in Denmark, included 42,696 children from the Danish National [Birth Cohort](#) and assessed the association between their mother's occupation and [asthma prevalence](#) amongst the children at the age of 7 yrs.

The main focus of the study was on the effect of low molecular weight agents, such as [synthetic chemicals](#) and [natural substances](#). This includes those found in vehicle parts, furniture, shoe soles, paints, varnish, glues and wood-derived products.

To assess the impact of low molecular weight agents, subjects in the study were classified into occupation groups, including those exposed to low molecular weight agents, mixed exposures, farmers, students and [office workers](#).

The assessment showed that 15.8% of the cohort had asthma. Out of the children whose mothers were occupationally exposed to low [molecular weight](#) substances, 18.6 % had asthma. These results were found after other factors, such as the mothers' age and weight, smoking status, use of medication and exposure to pets, had been taken into account.

There were no significant associations with asthma found within other occupation groups.

Dr Berit Hvass Christensen, from the School of Public Health in Denmark, said: "There are many factors which could cause asthma and many associations which have not been explored. We aimed to investigate whether a mother's occupation can have an effect on their children."

"This is the first large-scale study which has shown an association between maternal exposures during work and [asthma](#) in children. Whilst a link has been found, our results at this stage are modest and further research is needed into specific chemicals and substances to determine those that could be most harmful."

Professor Marc Decramer, President of the European Respiratory Society (ERS), said: "Indoor air quality is a major global issue. The European Respiratory Roadmap, which was launched this week to improve lung health, highlights the need for exposure standards, whereby all work places examine levels of allergens and respiratory irritants in their indoor air, to help prevent lung diseases. There is a clear need for this as many allergens are not currently regulated by international guidelines. We believe that everyone is entitled to clean [indoor air](#) and we can achieve this by taking positive steps towards managing air quality in the workplace."

Provided by European Lung Foundation

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