

# Children's exposure to fumes from domestic sprays may trigger disease

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**HOUSEHOLD** cleaning products could give children asthma, experts have warned.

Exposure to their chemicals early in life may trigger the condition, making youngsters four times as likely to become sufferers.

A study of almost 200 toddlers showed that those exposed to fumes found in cleaning items, polishes and room fresheners ran the highest risk.

The pollutants, called volatile organic compounds, are also found in solvents, paints, floor adhesives, fluted carpets and cigarette smoke.

The study examined 88 children with asthma and 104 without. The levels of VOCs in all the children's homes were assessed twice, in winter and summer.

Indoor temperatures and humidity - which affect the activity of house dust mites, which can trigger asthma - were also measured.

Three-quarters of the children diagnosed with asthma had at least one parent with an allergy, and over half had at least one parent with the disease.

These are significant risk factors for the development of the respiratory disorder.

But the authors of the study, published in the medical journal *Thorax*, also found that the levels of indoor VOCs were significantly higher in the homes of the children with asthma.

Lead author Dr Krassi Rumchev, of Curtin University of Technology in Perth, Australia, said: "Exposure to the fumes emitted from solvents and cleaning products at home may increase the risk of childhood asthma."

The pollutant benzene appeared

# How cleaning your house could lead to asthma

to pose the highest risk, followed by ethylbenzene and toluene.

Dr Rumchev said that although the study was small it supported a theory that exposure to indoor pollutants at a young age could be important in the later development of asthma.

Meanwhile, another preliminary study found that gas heaters in the home can cause breathing problems in young children.

Research on 627 youngsters aged eight to 11 showed that those who had lived in a house with a gas or other fume-emitting heater during their first year of life were 47 per cent more likely to have wheezing and hyperactive airways - a feature of asthma.

Dr Guy Marks, of Sydney University, said: "Gas appliances in par-

ticular emit higher levels of nitrogen dioxide than would be found outdoors. And some studies have linked nitrogen dioxide with an increased risk of respiratory symptoms and illnesses.

"If our findings are confirmed by other research we suggest the range of heating appliances used in households with young children should be reviewed."

Britain has the world's worst rate of childhood asthma. The number of diagnosed cases has doubled in the last 20 years, with 1.4million youngsters afflicted.

Almost one in three teenagers suffers, a rate three times higher than in France and Germany.

Doctors cannot explain the rise, although there are theories about pollution and central heating, fit-



ted carpets and better hygiene. Previous generations may have been exposed to more dirt, building their immune systems against asthma and allergies, it is thought. Asthma is the leading cause of hospitalisation of children in the Western world and the main reason why they miss school.

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**Epidemic:** Childhood asthma rates have doubled in the last 20 years