

## Aerosol cleaners used in the home may cause asthma

*Barcelona, 25 June 2007* – The use of home cleaning products in the form of aerosols, at least once a week, is related to the appearance of respiratory difficulties and asthma in adults. This association becomes stronger when the use of these aerosol products (including glass cleaners, furniture cleaners and air fresheners) is increased to four or more times a week. On the other hand, non-aerosol cleaning products have not demonstrated a connection with asthma.

These are the main results from a multicentre, multinational study conducted by various research teams, including the Centre for Research in Environmental Epidemiology (CREAL- *Centre de Recerca en Epidemiologia Ambiental*) and the Municipal Institute of Medical Research (IMIM- *Institut Municipal d'Investigació Mèdica- Hospital del Mar*). Other teams from Germany, Canada, Holland, Italy, the United Kingdom and Sweden have participated as well, under the coordination of the CREAL–IMIM researchers. These results have been recently published in the online edition of the *American Journal of Respiratory and Critical Care Medicine*.

Certain previous epidemiological studies have shown a risk of asthma amongst cleaning professionals. Nevertheless, no study had been designed that was able to demonstrate this relation in the non-professional or domestic cleaning setting. A total of 3,503 people were monitored in the European Community Respiratory Health Survey (ECRHS) once the ethical committees from the 22 participating health centres (from 10 different countries) accepted the study protocol. These participants were men and women between the ages of 20 and 44 who were initially free of asthma at the time they joined the study. They regularly cleaned their homes and accepted the conditions of their participation in the study by signing the corresponding informed consent document.

The survey revealed that these participants regularly used up to fifteen different types of cleaning products with various frequencies: daily; from one to three days a week; once a week; or even less. Throughout the study, the presence of respiratory illness was assessed through diagnosis, symptoms and the use of asthma treatments.

The researchers of this study have confirmed that “despite the fact that the use of aerosol cleaners is related to a significant risk of developing asthma in adults, this finding requires future research in order to identify the actual chemical composition responsible for the sensitisation and the characteristic inflammatory reactions of the induced respiratory effects in adults”.

### About CREAL

CREAL is a joint initiative together with the Municipal Institute of Medical Research (IMIM-Hospital del Mar), Pompeu Fabra University (UPF) and the Generalitat of Catalonia. Despite its recent creation in 2005, this centre has inherited a line of environmental epidemiological research initially promoted by the IMIM Respiratory and Environmental Health Research Unit (URRA- *Unidad de Investigación Respiratoria y Ambiental*). Thus, its research staff has extensive experience in

information systems research and advising, environmental risk assessment and crisis management, as well as in environmental epidemiology methods training and knowledge management. Director: Josep Maria Antó. [www.creal.cat](http://www.creal.cat)

### **About IMIM-Hospital del Mar**

Created almost 60 years ago by the Barcelona City Council, IMIM-Hospital del Mar is a public research institute dedicated to scientific research in the field of Biomedicine and Health Sciences, as well as to the training of highly-qualified research staff specialised in these areas. It is divided into 18 multidisciplinary research units whose activities focus on: basic, clinical and epidemiological cancer research; clinical and epidemiological research on commonly abused medicines and drugs; health services research; cardiovascular illness research; respiratory medicine and environmental health research and biomedical information technology research. Director: Miguel López-Botet. [www.imim.es](http://www.imim.es)

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