

Health hazards of occupational exposure to talc

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Talc, a substance commonly used in a number of manufacturing processes, including many in the food processing industry, is a health hazard and exposure to it should be closely monitored, say researchers from The Netherlands.

Presenting his findings to the European Respiratory Society's (ERS) International Congress today (28 September 2015) Dr Jos Rooijackers, a pulmonologist from the Netherlands Expertise Centre for Occupational Respiratory Diseases (NECORD), Utrecht, will say that there is insufficient awareness of the risks to health caused by the inhalation of talc, and that this needs addressing urgently.

Dr Rooijackers and colleagues studied [workers](#) in a chocolate products factory where talc (hydrated magnesium silicate) was used regularly in the [manufacturing process](#), and in which one worker had already been diagnosed with the pulmonary disease talcosis, where the inhalation of talc causes inflammation in the lungs. Damage is progressive with ongoing exposure and may lead to lung fibrosis and respiratory failure. In some cases, the steroidal anti-inflammatory drug prednisone may help sufferers.

"Although talcosis is a well known health effect of talc inhalation in such industries as mining, the risk was not recognised by the company, since talc is considered to be a harmless food additive and safe overall," says Dr Rooijackers. "As soon as an employee was diagnosed with talcosis caused by [occupational exposure](#) the company became concerned about

the health risks to its employees posed by talc use."

The researchers analysed individual exposure in all those workers who were in regular contact with talcum dust. The 111 workers who had the highest exposure were asked to complete a questionnaire on their occupational history and respiratory symptoms. Based on their estimated cumulative exposure, 18 workers were referred for a high resolution CT scan of the thorax. At least one, and possibly two workers out of the 18, were found to have talcosis. Following the researchers' work, the company implemented effective control measures aimed at limiting workers' exposure to talc.

Many industries use talc in the manufacturing process. In food, it is minerally inert and passes through the body without being digested. It is therefore used for a carrier for food colouring and as a separating agent in, for example, sweet goods, bakery, rice, powdered dried foods, seasonings, cheese, sausage skins and table salt. Non-food uses include paper, paint, plastic, rubber and ceramics.

In addition to talc, the researchers say, inhalation of other food additives as well as flavours and enzymes may be an as yet unidentified respiratory hazard in the food industry, and it is important that this should be studied and quantified.

"Our research shows that comprehensive surveillance programmes including exposure assessment and structured medical evaluation are the keystone of prevention and contribute to a safe and healthy workplace, thus underlining the recommendations in the ERS guidelines on the management of work-related asthma, " says Dr Rooijackers. "The health effects of occupational exposure to dust, gases and vapours are not well recognised by health professionals and neglected by public authorities and employers, reinforced by a conflict of interest, and leading to missed diagnoses and a high burden of disease, thus putting employees in

danger."

More information: Abstract: Surveillance in talc exposed workers in a chocolate products plant

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