

## NEW CAUSES OF OCCUPATIONAL ASTHMA REPORTED IN 2010

Each year new agents that cause occupational asthma are published in the medical literature. The current list of known causes of occupational asthma includes over 400 substances (<http://www.haz-map.com/OA1.html>) or (<http://www.aocedata.org/ExpCodeLookup.aspx>). Routinely asking adult patients with new-onset asthma about possible work-related triggers is the initial step in identifying these new agents. Most publications in the medical literature on new causes are case reports which include a description of the patient's symptoms, exposure, documentation of hyperreactivity, skin testing and some form of pulmonary function testing specific to the exposure or workplace. This issue of Project SENSOR News reviews the new agents identified as causing occupational asthma in 2010. Agents are divided into high molecular weight proteins from animals and plants where sensitization is typically through an IgE-mediated mechanism and low molecular weight chemicals that act as a hapten and bind with a protein in the patient. Sensitization with these chemical agents is typically not IgE mediated. A review article was published in 2011 that also included new asthmagens reported in 2009 (Quirce S, Sastre J, 2011).

### CHEMICALS

**ADIPIC ACID** – A case report of a woman soldering and desoldering alternators who developed asthma after exposure to a colophony (colophony is a recognized cause of asthma) free flux (Moore VC, Burge PS, 2010).

**COLISTIN** – A case report of a man who developed rhinitis 3 months and asthma 9 months after beginning to work in a pharmaceutical manufacturing company (Gomez-Olles S et al, 2010).

**5-AMINOSALICYLIC ACID** – A case report of a man developing symptoms one month after beginning to work in a pharmaceutical manufacturing company (Sastre J et al, 2010).

**RHODIUM SALTS** – A case report of a man who developed asthma while working at an electroplating facility (Merget R et al, 2010).

**TRIGLYCIDYL ISOCYANURATE (TGIC)** – A case report and a case series were published. In the case report, a woman developed asthma after being exposed to an electrostatic powder paint containing TGIC. In the case series, 6 workers developed asthma working nearby a process using heated TGIC (Anees W et al, 2010; Sastre J et al, 2010).





## ANIMALS/FISH/INSECTS



***Amblyseius californicus*** – A case report of a tomato green house worker who had a specific reaction to the predatory mite *Amblyseius californicus* used as a biological control (Skousgaard SG et al, 2010).

**CADDIS FLIES** – A case report of an engineer who was exposed to flies while working for an electric power company (Miedinger D et al, 2010).

***Chrysonilia sitophila*** – A case report of a worker exposed to coffee grounds which contained the fungus *Chrysonilia sitophila* (Francuz et al, 2010).

**TURBOT** – A case series of three workers who classified fish at a fish farm. None had symptoms if they ate the fish (Pérez CC et al, 2010).

## PLANTS

**CABREUVA** – A case report of a parquet floor layer who worked with this hardwood from the Amazon (Pala G et al, 2010).

**CARPENTRY APPRENTICE** – Seven apprentices had positive skin tests to olive tree wood, one to obeche and one to pine tree (Campo P et al, 2010).

**RICE POWDER** – A case series of three workers who developed asthma from rice powder (Kim JH et al, 2010).

**SPICES** – A case series of asthma in three workers from a spice mill. The workers reacted to multiple spices, all reacted to garlic and chili pepper (Van der Walt, A et al, 2010).

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**IF YOU HAVE QUESTIONS ABOUT DIAGNOSING OR MANAGING A PATIENT WITH POSSIBLE WORK-RELATED ASTHMA, PLEASE CALL KENNETH ROSENMAN M.D., AT 1-800-446-7805.**



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S.E.N.S.O.R.

# News

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\*Remember to report all cases of occupational disease!

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