Cleaning Products Can Lead to Asthma Fatality File

Workplace exposures and the cost of occupational asthma

A 39-year-old man hired by an auto parts manufacturer had been diagnosed with asthma six years earlier but never experienced any symptoms. Although he was a smoker and obese, his health check-up revealed nothing else of concern. His work involved die design, machining, grinding, injection process simulation, and inspection. Six years after hire, a cough and difficulty breathing became a nuisance. A year later, breathing difficulties sent him to the emergency department. A year later, he died at age 47. The cause of death was work-exacerbated asthma due to exposure to styrene, a chemical which was used in the injection process.

In another case, this one reported by the National Institute for Occupational Safety and Health (NIOSH), a man in his 20s went to work for a resin manufacturer. One of his job functions was to insert fuel into a reaction vessel. The fuel contained pulverized phthalic anhydride and anhydrous maleic anhydride; two substances that have been documented as linked to asthma. This young man, in good health at the start, developed asthma two years into his job. It was occupational asthma directly associated with the work environment.

The chemicals mentioned in these two cases are among more than 300 substances used in the workplace that are known or suspected to cause asthma in healthy employees or exacerbate asthma in employees who have received an asthma diagnosis.

Other occupational exposures that potentially cause or worsen asthma include:

- Animals and animal by-products

- Diacetyl
- Formaldehyde
- Isocyanates
- Plant-based fibers
- Latex
- Nuts
- A range of other chemicals

In addition to the ones listed, other work aspects cited in reports of occupational asthma include smoke and fumes, physical conditions such as poor ventilation, vapors and gases, and other unidentified substances.