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Occupational Asthma

Occupational asthma (also known as OA) is a disease that results from exposure to sensitizing agents in the workplace. About 10% of adults who have asthma have occupational asthma. OA is usually diagnosed by a specialist and there are certain conditions that have to be met. They include:

- Exposure to a sensitizing agent
- An initial symptom-free period of exposure
- Improvement in symptoms when away from work.

Who gets OA?

A previous history of asthma is not a risk factor for OA. The latency period varies considerably from person to person, sometimes taking years before the OA shows up.

There is a long list of occupations from animal breeders, bakery workers, carpenters, farmers, food handlers, hairdressers, health care workers, laundry workers, metal refiners, painters, pharmacy workers, plastic and platinum workers, printers, and teachers, to wood workers.

Risk Factors

The risk factors for OA include:

- atopy (the tendency to be allergic),
- smoker,
- genetic history,
- exposure to a sensitizing agent,
- exposure to toxic spills, and
- the level of exposure.

Symptoms

The symptoms for OA are the same as for asthma: shortness of breath, cough, wheeze, chest tightness. There may even be eye and nose problems. Symptoms will tend to get worse with time but will improve with absence from work.

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Sensitizing Agents to Avoid

Over 250 agents have been identified as known sensitizing agents. Some of the recognized agents include:

- isocyanates (used in the manufacture of adhesives, foam, rubber and in printing)
- formaldehyde (lab workers, fabric and carpet manufactures, undertakers)
- epoxy resins (used in the manufacture of paints, plastics and adhesives)
- perchlorethylene (dry cleaners)
- proteolytic enzymes (used in the manufacture of detergents; chemical workers)
- platinum salts (platinum metal refiners)
- nickel and chromium (automobile assembly and repair workers)
- western red cedar
- flour or grain dust
- antibiotics

The list goes on. Latex, harvest moulds, dyes, tea, coffee, are also on the list of substances that can trigger OA. They include animal, plant and insect proteins. Once a person has OA, it takes exposure to only a minute quantity to trigger a reaction.

Treatment

Once OA has been diagnosed, the person should minimize their exposure to the sensitizing agent. If they cannot minimize their exposure through personal protection devices, they may have to change jobs. OA is treated like any other asthma, with inhaled corticosteroids together with emphasis on avoidance of triggers.

References

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Newman LS. *Occupational asthma*. Clin Chest Med. 1995; 16(4): 621-36

Tarlo SM, Boulet LP, Cartier A, et al. *Canadian Thoracic Society guidelines for occupational asthma*. Can Respir J 1998; 5(4): 289-300

For More Information

Contact the Asthma Society of Canada at 1-866-787-4050 or visit www.Asthma.ca.