Aeroallergens and the Respiratory tract

United Airway Disease

By Dr Sharyn Martin (PhD) March 2011

The term “united airway disease” is increasingly being used to describe the inflammation that occurs in both the upper and lower airways in those with chronic respiratory diseases such as allergic asthma and rhinitis. The main presenting symptoms varies between individuals, in some it maybe asthma, in others rhinitis. Many patients with asthma have rhinitis, which is itself a risk factor for the development of asthma. Repeated experience of asthma-like symptoms is also an important risk factor for the development of asthma. Often the same allergens will trigger both allergic rhinitis and asthma.

Relationship between the upper and lower respiratory tract.
Vocal Cord Disorder Symptoms present in the upper chest, throat (PM10, particles with diameters less than 10 micrometre) and fine particle (PM2.5, particles with diameters less than 2.5 micrometres) can penetrate and be retained in the deepest structures of the lung. These (2.5 to 10 microns) tend to be deposited in the trachea-bronchial area. (2.5 microns or less) can penetrate deep into the lungs producing immune reactions symptoms in the lower respiratory tract – e.g. asthma.

Allergic or non allergic/irritant responses are characterised by an asymptomatic period of sensitisation to an allergen, whereas responses may be caused by single exposure to the irritant or chronic low level exposures. Whether a person develops allergic or irritant/non allergic responses to chemicals and allergens depends on the individual's characteristics. Some people.

Although individuals with allergic and non allergic responses may experience the same allergic symptoms, the development of allergic or non allergic/irritant responses to some people.

If you suspect you have allergies or asthma visit a medical health practitioner for diagnosis and treatment. Diagnosis requires a complete medical history and diagnostic laboratory and physical tests such as lung function tests, skin prick tests and IgE levels (RAST).


Throughout life, these allergens/irritants starts in the uterus and progresses through life. Whether a person develops allergic or irritant/non allergic responses to chemicals and allergens depends on the individual's characteristics. Some people.

Allergy, 63: 261–267. The nose-lung interaction some people.

Walter Canonica. 2010. The Link Between Allergic Rhinitis and Asthma: The United Airways Disease. Health Care Without Harm. 2006. Risks to asthma posed by Indoor Health Care Environments. Although individuals with allergic and non allergic responses may experience the same allergic symptoms, the development of allergic or non allergic/irritant responses to some people.

In Australia 19.6% of the population have at least one allergy, of these 10% have asthma. Many allergies co-exist, for example allergic rhinitis occurs in 75-80% of asthma patients and 20% of many allergies co-exist, for example allergic rhinitis occurs in 75-80% of asthma patients and 20% of children with allergic disease develop IgE (allergic) antibodies to common allergens. In infancy children with more than one allergy, or those sensitised to inhalant allergens and those with allergic rhinitis have asthma. Later in childhood inhaled allergens/irritants, the size of the particle determines its ability to penetrate into the airways.

Allergic rhinitis and asthma: united airways disease. Review Article Current Opinion in Allergy. Levels of exposure required to cause allergic reactions vary, but once sensitised, irritants can increase sensitivity to allergens when there are co-exposures – eg air pollution and pollen. Extremely low levels of either irritants or allergens can trigger an asthma or rhinitis attack in some people.

For inhaled allergens/irritants, the size of the particle determines its ability to penetrate into the airways. For all these conditions reduction/ prevention of exposure to triggers in the environment – home, work and school can improve assist in improving health and reducing symptoms. This is particularly important during pregnancy.

The Human Respiratory System

Nasal passage
Oral cavity
Pharynx
Larynx
Trachea
Bronchi
Lung
Heart
Ribs

Particles between 10-100 microns are deposited higher up in the airways and produce symptoms in the upper respiratory tract – e.g. rhinitis, conjunctivitis.

Allergic and irritant/ non allergic asthma. Symptoms occur deep in the chest. Allergic and irritant/ non allergic rhinitis, conjunctivitis and sinusitis. Symptoms present in the nasal passages and eyes.