

## Allergy Testing Owen Sound

Allergy Testing Owen Sound - Asthma literally translates to and means "panting" in the Greek language. It refers to a chronic inflammatory disease of the airways and lungs. The characteristic asthma signs are recurring and variable, consisting of reversible airflow obstruction and bronchospasm. Symptoms of asthma include: chest tightness, wheezing, coughing and shortness of breath. Asthma is clinically classified depending upon the frequency of signs, peak expiratory flow rate and forced expiratory volume in one second. Asthma could be further categorized as extrinsic or atopic or non-atopic or intrinsic.

Asthma is thought to be triggered by a combination of genetic and environmental factors. Treatment of acute indications is often by utilizing an inhaled short-acting beta-2 agonist, for example salbutamol. Individuals who suffer from asthma try to avoid triggers consisting of irritants and allergens. Those who have asthma normally find relief by inhaling corticosteroids. Treatments making use of Leukotriene antagonists are less effective than corticosteroids are generally less preferred.

The diagnosis is normally made based on the pattern of signs as well as the response to therapy over time. There has been a significant increase in asthma ever since the 1970s. Based on statistics of 2010, across the world, over three hundred million individuals are affected worldwide and 250,000 asthma deaths were recorded in the year 2009. The prognosis for asthma is usually good due to the ability to correctly deal with this particular condition through therapy.

### Classification

Asthma is classified based on its seriousness in patients, the frequency of signs, if the symptoms take place at night, FEV1 variability and predicted percent of FEV1, how often and intermittent the attacks happen et cetera. The asthma could be considered mild persistent if the attacks take place less than 2 times a week and not daily. For example, if they occur 3 to 4 times per month. Another category will be moderate persistent. These attacks could occur once per week but not nightly. Daily attacks are considered to be severe persistent taking place normally 7 times per week, perhaps several times per day.

Presently, there is no concise way for categorizing different subgroups of asthma, even if the condition is classified based on seriousness as listed above. Cases of asthma respond to different treatments. There is still much research ongoing to find ways to categorize subgroups and what treatments respond well.

Asthma is not considered part of chronic obstructive pulmonary disease, even though it is a chronic obstructive condition. Chronic bronchitis, bronchiectasis and emphysema are examples of chronic obstructive pulmonary disease because this is irreversible. In asthma, the airway obstruction is reversible, although, if left untreated, the chronic lung inflammation during asthma can become an irreversible obstruction due to airway remodeling. Asthma even affects the bronchi and not the alveoli as in emphysema.

### Asthma Attack

Asthma attacks are normally defined as an acute asthma exacerbation. Indications of an asthma attack includes: chest tightening, shortness of breath and wheezing, although several individuals present mainly with coughing. In various cases, arm motion could be impaired so greatly that no wheezing is heard. During an attack, there can be a paradoxical pulse, that means a pulse which is weaker during inhalation and stronger during exhalation. The person may have a blue tinge to their skin and nails caused by the lack of oxygen. Some muscles in the neck such as the sternocleidomastoid and scalene muscles might become more pronounced as the individual struggles for air.

In a mild exacerbation the peak expiratory flow rate or PEFr is  $\approx 200$  L/min or  $\approx 50\%$  of the predicted best. Moderate is defined as between 80 and 200 L/min or 25 percent and 50 percent of the predicted best whereas severe is defined as  $\approx 80$  L/min or  $\approx 25\%$  of the predicted best.

### Exercise Induced

Among top athletes, asthma may be exercise induced. During the Summer Olympic Games held Last 1996 in Atlanta, a survey of the athletes showed that 15% of athletes had asthma and 10 percent were on asthma medication. The most common sports that have a high occurrence of asthma consist of cycling, long-distance running and mountain biking. Diving and weight-lifting show a somewhat lower incidence. There has been proof suggesting insufficient levels of vitamin D are linked with serious asthma attacks. Usually, exercise induced asthma is treated successfully with the use of a short-acting beta2 agonist.

### Occupational Asthma

Individuals exposed to some workplace factors, may have asthma. These reported asthma attacks are known as occupational respiratory disease. The majority of cases on the other hand, are not reported or recognized as occupational asthma. The highest percentage of cases occurred during fabricators and labourers, followed by professional and managerial specialists as well as those in sales, administrative support and technical jobs. The majority of these cases of asthma were in the services and manufacturing industries. Some reactive chemicals are normally associated with work-related asthma as well as things like for instance enzymes, animal proteins, flour and natural rubber latex. One study reported that 15 to 23 percent of new onset asthma cases that happened in adults are work related.

### Causes

There are many environmental and genetic elements that cause asthma. A lot of these issues would influence how serious it responds to medication. There have been studies showing related illnesses like for example eczema and hay fever are related. The strongest risk factor for developing asthma is a history of atopic disease. The more allergens one reacts to on a skin test, the higher the possibilities of them having asthma.

Much allergic asthma is associated with sensitivity to indoor allergens. In the West, our normal housing styles also allow greater exposure to indoor allergens. There have been mixed findings to the prevention studies aimed at the aggressive reduction of airborne allergens inside a home with babies. Like for instance, strict dust mite restriction has reduced the possibility of allergic sensitization to dust mites and somewhat reduces the chance of developing asthma until the age of 8. Although, similar researches with exposure to cat and dog allergies have shown that exposure during the first year of life was found to lessen the risk of allergic sensitization and of developing asthma later in life.

Some studies in the UK and the USA have explored the risks between obesity and the development of asthma. A lot of factors that are related with obesity may play a role in asthma pathology. Like for instance, because of a build-up of fatty or adipose tissue, a decreased respiratory function could occur. This may be partly because adipose tissue contributes to a pro-inflammatory state and this has been connected with non-eosinophilic asthma. Adult onset asthma has likewise been linked with periocular xanthogranulomas and Churg-Strauss syndrome.