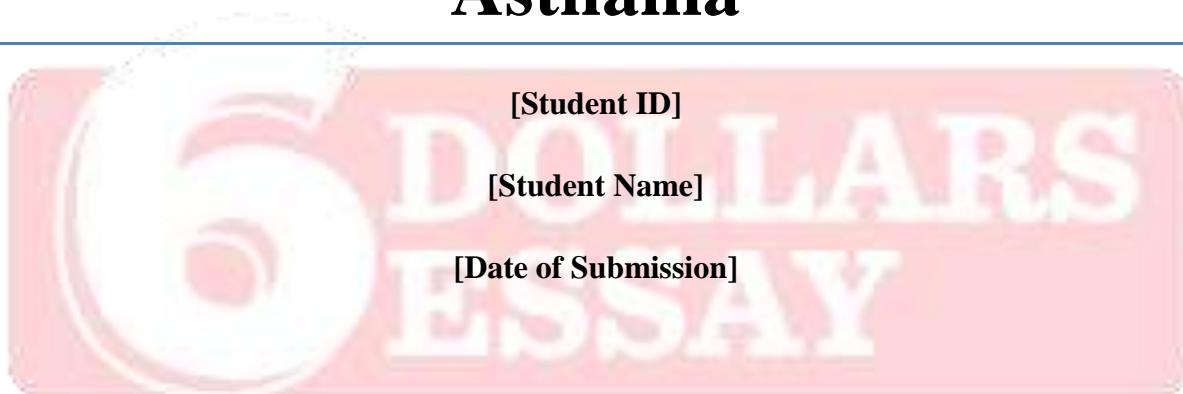


# Asthama

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## **Introduction**

In the medical terms, asthma is one of the chronic diseases which are prevalent mostly in the children (Aaron, 2017). With the practitioner's approach, asthma can be controlled at the very stage by the process of spreading the awareness and education among the children and their families. Most of the cases remain untreated, for which the victims suffer for the rest of the life. In this paper, the chronic disease is broadly explained with respect to its adverse effects and symptoms. Moreover, it also describes the prevalent causes as well as possible treatments in order to cure and mitigate the crucial health-related risks.

## **Asthma**

In the healthcare regime, many diseases are characterized as chronic as they have the adverse effect on the health of a human body. Asthma is one of the most common chronic diseases, which is prevalent in children mostly (Monaghan and Gabe, 2015). According to the health-related statistics and world census, approximately 6 million children are under the critical effects of asthma due to which they have been on the mere stages of treatment and survival. However, the disease is referred as a chronic inflammatory lung disease which causes a patient to suffer from various health issues, such as episodic coughs, breathing issues, and wheezing.

While Asthma itself is chronic, the disease can form different levels of insignificant functions that may vary in terms of symptoms or the inheritance of disease (Orsborn and Demetriou, 2017). During the episodic asthma attack, a sufferer undergoes painful symptoms due to which the airway lining in the lungs are blocked, causing the patient to suffer from the swollen and inflamed lungs. Moreover, the contraction of muscles are also affected due to which the muscles

are swollen and hence, the production of airways are carried out throughout the muscular system due to which the airflow is excessively reduced.

Functionally, asthma is characterized in different ways, such as:

**Airway Inflammation** - the lining from which the airway is passed becomes red i.e. swollen due to which the passage of airway is narrowed in the physical terms.

**Airway Obstruction** – the muscles are highly impacted by the airway tightening due to which it becomes difficult for the air to pass the narrow passage as well as difficulty occurs to get air in and out of the lungs.

**Airway Hyper-Responsiveness** – the muscles affected by the airway responds quickly to the small amounts of allergens and irritants.

### **Anatomy and Physiology**

A human body is mainly attacked by asthma when there is a possibility of becoming bronchi and bronchioles inflammable, which in turn narrows the space from where the air is passed to the passage of lungs (Rectenwald, n.d.). Due to this it becomes critical for the lungs to bear the in and out of the air. Perhaps, the asthma attacks are often prevails with the mild chest pressure as well as the episodic dry coughs. As the effect of attack increases, symptoms of wheezing are developed due to which there is an increase in the pitch, causing more difficulty in breathing and hence, the cough produces mucus, which is a thick and stringy substance.

The process continues to increase in a critical way which further includes the stage of airway inflammation prevention. At this stage, the human body is prevented from receiving the rich

oxygen which should be reached to alveoli. However, the body cells burn out the oxygen at a higher rate due to which body demands for more oxygen. It is quite noticeable that the frequency of asthma attack varies with respect to the asthma suffers which primarily depends on various factors. According to the medical interventions, some of the patients are immune to daily asthma attacks while others may face the vulnerable situations in month or even years as well (Jamal et al., 2017).

The main causes of the inflammation of the airway are prevalent due to the irritant affecting the air walls of the lungs. These irritant can be either cigarette smoke or the hairs of pet. When these irritant are detected as harmful element to the human health, the immune system of a human body sends special cells, known as mast cells, to the place of irritation when the airway walls are blocked. These cells further send histamine which is a chemical that causes swelling and redness in the internal body. Thus, the whole process of such inflammatory is known as inflammatory response.

## **Symptoms**

There are many reasons for a child to suffer from the asthma attack due to which the human body is capable to encounter insufficient amount of oxygen for which the respiratory system is greatly affected. More often, asthma attacks are naturally induced in the human body due to the air hyper-responsiveness (Mogensen et al., 2016). In this process, there is an increased reaction of the bronchi and bronchioles to a number of different environmental and physiological stimuli that refers to triggers.

Apart from the internal criticality, there are some of the common causes which increase the viability of the asthma attack in a human body. Most importantly, the asthma attacks are caused

due to the transportation of small, lightweight particles through the natural air. As the natural air is affected by the pollution, the particles are added in the air which is inhaled into the lungs through the respiratory process. When these particles increasingly gather into the airways, the particles, known as environmental triggers, affects the functionality of the inflammatory response in the airway walls, thus, causing the human body to suffer from chronic asthma attack.

As every person is inheriting to identical environmental factors, some people are more prone to allergies due to the environmental triggers (Rectenwald, n.d.). These allergens are mostly caused due to the impurities in the natural substances or the natural effects with such substances, including plant pollen, animal hairs, and fecal material that is present in the dust in the form of little insects (mites and cockroaches). These allergens are responsible to affect the immune system in which the inflammatory response receives chronic responses from severe antibodies. For instance, a number of people in the present time are hereditary to get affected by the chemical triggers, such as perfume, cosmetics, hairspray etc. However, it shows the sensitivity of the human organs that works abnormally when comes in contact with such reactants. Thus, many researches and studies have provided the evidence that not all of the asthma sufferers are prone to chemical reactions but also to environmental triggers that contributes in the development of asthma (Monaghan and Gabe, 2015).

In addition to the triggers as a main symptom of the asthma attack, physiological triggers also contributes in developing the asthma attack in a human body. These triggers mainly comprises of the exercise and infections, such as the common cold. Furthermore, some eateries and food are also responsible in developing the chronic disease that enables a person to experience high viability of the lack of oxygen. From the medical reports and food inspection, it is evident that some food contains the rich chemicals that are insignificant to human health. Moreover, even

some of the medications are vulnerable to health that increases the chances of asthma attack. However, human physiology is sometimes a main source of inducing the chronic diseases such as the intense emotions as well as the hypertension. Thus, some people are sensitive to natural and physical activities, which causes them to suffer from variable health issues.

### **Effect of Asthma**

An asthma is one of those diseases which has no significant cure and thus, the disease may increase in extent with the age (Rectenwald, n.d.). Asthma does not occur with a single factor, however, it can cause a person to suffer from the lack of oxygen that constitutes to different demographic factors, such as age, gender, ethnicity, race etc. Although it has adverse effects on the health of a person of all ages, the disease is commonly diagnosed in childhood, which is much vital in children as compared to adults (Mogensen et al., 2016). The main health problems due to asthma attacks are known to be inactive life expectancy, weak respiratory system, weak immune system, and prone to allergies that further cause the patient to suffer from other infections.

### **Treatment**

It is vital to diagnose and treat asthma at a very early stage in order to mitigate the vulnerable conditions in a human health. Mostly, physicians diagnose asthma through identifying main symptoms of the chronic condition (Aaron, 2017). The diagnosis are concerned with the episodic problems that reflects the major issues of breathing including wheezing, coughing, and the difficulty in breathing. When these symptoms does not contribute in the diagnosis of asthma, the doctors utilizes other strategies to find out the crucial symptoms and causes of the disease that are prevalent to the asthma attack.

Most of the time, doctors use their medical terms and philosophies in order to detect the major drivers of the chronic disease. In this regard, the doctors prescribe some useful medical tests, which help in identifying abnormal respiratory functions in a human body that aids in the process of diagnosis. When such practices are significant to the medical diagnosis, some of the measures are adequately taken to identify the triggers in order to prevent the patient from getting in contact with different types of triggers (Orsborn and Demetriou, 2017).

### **Policy and Standards of Care**

In order to mitigate the prevalence of asthma and controlling its adverse effects after the diagnosis, some of the guidelines and standards are proposed by the healthcare societies, which play an important part in the medicinal treatment of the chronic disease (White et al., 2018). Among all these standards, NICE quality standards are one of the initiatives which presents the quality areas for the implementation of the steps in order to improve the health under the supervision of defined care or service area (Kendrick et al., 2015). The standards underlying NICE guidelines mainly consist of the statements that are of high priority and reflect specific and concise measurements. These standards draw existing guidance in order to provide exceptional recommendations and controlled measures for supporting the treatment and cure of asthma. However, it is important to follow the established frameworks that are adequately designed and developed for the purpose of supporting the asthma treatment in the medical associations.

### **Issues**

As these guidelines are specifically designed in terms of providing assistance in the diagnosis of the asthma attack with some major treatments, some of the challenges are also inclined in inheriting these standards in the medical line. One of the major challenges is the inaccurate



results which encompasses other difficulties in the process of diagnosing the chronic disease. It is crucial for the doctors to implement these standards on the basis of which the patients are suffered in receiving the timely treatment policies and thus, other critical developments may result. Secondly, some of the practitioners tend to follow the traditional propositions in order to enhance their skills while the guidelines offer the chain of systematic standards that only follows the practices, which are inadequate in terms of the application and producing the diagnostic reports for further treatments (White et al., 2018).

## **Conclusion**

As per the medical reports and other healthcare theories, asthma is one of the chronic diseases, which is prevalent in the children and is mostly diagnosed in childhood as compare to the adult age. According to the medicinal helps and guidelines, the chronic disease is developed due to many reasons among which the triggers, specifically environmental, physiological, chemical, and other irritants, develop insignificant antibodies in the human system, which blocks the airways and affects the inflammable responses. However, this leads to narrowing the passages of airways in lungs causing the air to pass with difficulty. Hence, the attack is developed which in turns affect the overall system of human body, mainly the respiratory system. Many of the guidelines and standards are proposed in order to aid in the process of diagnosis but still some of the challenges are encountered while adopting such standards in the medicinal treatments.

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