

What is asthma? – paper essay

Literature, Russian Literature



WHAT IS ASTHMA? Asthma is a chronic disease of the airways that makes breathing difficult. With asthma, there is inflammation of the air passages that results in a temporary narrowing of the airways that carry oxygen to the lungs. When this inflammation occurs, the asthma symptoms start to show, such as, coughing, wheezing, shortness of breath, and chest tightness. Even though there are many treatments for asthma symptoms, it is still a very serious disease that affects more than 22 million Americans and brings nearly 2 million E. R. visits per year.

Asthma can be lived with very well as long as proper treatment measures are taken (Wrongdiagnosis). Asthma itself can be described as having 3 major features: airway obstruction, inflammation, and airway irritability. Airway obstruction-During normal breathing, the airways are relaxed and air can move freely.

In people with asthma, however, certain triggers make those airways tighten and air cannot move freely. Inflammation-Individuals with asthma have red and swollen bronchial tubes. This inflammation contributes greatly to the long-term damage that asthma causes to the lungs. Treating inflammation is a key component to managing asthma in the long run. Airway irritability-The airways are extremely sensitive and tend to overreact and narrow due to even the slightest triggers (WebMD). CAUSES/TRIGGERS There are no real causes of asthma but it can affect every single person differently. There is one thing consistent with asthma, and that is when the airways come into contact with a certain trigger, they become inflamed, narrow, and fill with mucus. Here are a few of the triggers and how they affect the airways;

allergies= 80% of people with asthma have allergies to airborne substances like trees, grass, weed pollen, mold, animal dander, and dust mites.

Food/food additives= not common for food allergies to cause asthma symptoms but can cause life-threatening reactions. Such foods are eggs, cow's milk, peanuts, soy, wheat, and fish. Exercise= Strenuous exercise can cause a narrowing of the airways in about 80% of people with asthma. For some, exercise is the main trigger. You will feel chest tightness, coughing, and difficulty breathing for the first several minutes of activity. Heartburn= Can go hand in hand with asthma. 89% of asthmatic people also suffer from severe heartburn, or GERD (gastroesophageal reflux disease).

This will generally occur at night when lying down. The stomach acids reflux, or back up, into the esophagus, and if the acid reaches into the throat or airways the irritation and inflammation can trigger an attack. Smoking= Will make symptoms worse (coughing/wheezing).

Babies are at risk if their mother smokes while pregnant. If you are a constant smoker, quitting is the most important step to take to protect your lungs. Upper respiratory infections= A sinus infection causes inflammation in the mucus membranes which leads to increased mucus secretion. People with asthma will need prompt treatment in order to subside the symptoms. Even the cold, flu, or bronchitis could possibly trigger an asthma attack, especially for those children under age 10. Medications= Many people with asthma may be sensitive to certain medicines, even over-the-counter meds like ibuprofen, naproxen, and beta-blockers.

Irritants= These could include tobacco smoke, fireplaces, strong perfumes, cleaning agents, and air pollution. Weather= Cold air, temperature change, and humidity. Strong emotions= Asthma and stress are more often than not seen together. Stresses that cause anxiety, crying, yelling, stress, anger, or even laughing can cause an attack (WebMD). Asthma has many causes and the reactions to those causes could vary widely amongst each person. It is important for someone with asthma to identify their causes/triggers and recognize and avoid them whenever possible. However, the best way to control the symptoms is with asthma treatment and medicines specifically for asthma.

SYMPTOMS Just like with the causes and triggers to asthma, the symptoms are the same way, not all or even some of the symptoms will show up for you as they would for me. Your symptoms may even be different from one asthma attack to the next. Some common symptoms would include: coughing (especially at night), wheezing, shortness of breath, and chest tightness, pain, or pressure. In addition, some people may only have asthma during exercise or with a viral infection. Obviously the worst symptom of asthma is to have an asthma attack.

An asthma attack is a sudden worsening of asthma symptoms caused by the tightening of muscles that surround your airways, also known as a bronchospasm. The lining of the airways becomes swollen and thicker mucus is produced. All of these factors cause the symptoms to induce such as difficulty breathing, wheezing, coughing, and shortness of breath. Other symptoms include: severe wheezing when breathing in and out, non-stop

coughing, very rapid breathing, chest pain/pressure, retractions in the neck and chest muscles, anxiety/panic feelings, pale face, blue lips, and medication ceases to help.

If you are experiencing an asthma attack, you must use your medication immediately, if medicine is not available or not working, you must be taken to the hospital to get immediate help(CDC). TYPES OF ASTHMA There are many types of asthma that affect many different types of people. Asthma is so unique in the fact that it doesn't just do one thing to someone who has it, the symptoms and causes and triggers will vary amongst the 22 million Americans who have it. Some of the types include: Allergies and asthma-The most common allergens enter the body through the airway. Hay fever is the single most common chronic allergic disease. This is the most common trigger for someone with asthma and allergies to get symptoms.

Exercise-induced asthma-This is caused by exercise or physical exertion. With exercise-induced asthma, airway narrowing peaks 5-20 minutes after exercise begins. An asthma inhaler will help to prevent these uncomfortable asthma symptoms. Cough-variant asthma-With this type of asthma, severe coughing is the predominant symptom. Cough-variant asthma is vastly underdiagnosed and undertreated. The main triggers for this type are usually respiratory infections and exercise. Occupational asthma-This results from only workplace triggers. Many people will suffer with a runny nose, congestion, eye irritation, or have a cough instead of wheezing.

Some jobs associated with this type of asthma are animal breeders, farmers, hairdressers, nurses, and painters. Nighttime asthma-If you have asthma,

the chances of you having symptoms are much higher during sleep because asthma is powerfully influenced by the sleep-wake cycle. So your asthma symptoms are particularly dangerous at nighttime (WEBMD). ASSESSMENT Because of the fact of how ambiguous of a disease asthma is, it makes it even more difficult to diagnose it. As previously talked about, symptoms are different with everybody and the causes to those symptoms are different, so because of that doctors find it hard to pinpoint if someone is really suffering with asthma. The doctor however should be an asthma patients best friend because only they will give you the proper diagnoses and treatment to ensure you live a productive and stress-free life.

At your initial exam, the doctor will ask for a variety of things such as, a detailed medical history, info on currently known asthma symptoms, how you feel, known asthma and allergy triggers, activity level and diet, home and work environment, and family history. After discussing your triggers and symptoms, you will now perform a possible variety of asthma tests; Spirometry-a lung function test that measures how much air you can exhale. It confirms the presence of airway obstruction that can improve with treatment. Recommended for adults and kids over 5. Peak Flow Testing-A self-assessment you can do to evaluate lung function. The peak expiratory flow rate (PEFR) provides a reliable measure of airway function and when done accurately, a drop in the peak flow measurement reflects an obstruction in you airways. Chest X-Ray-this is only required if it is suspected the asthma patient has pneumonia or if your current asthma treatment isn't working as well as it should. Lastly, the Methacholine Challenge Test-this is

more commonly used in adults who did not get a previously clear diagnoses of asthma.

Methacholine is an agent that, when inhaled, causes the airways to spasm and narrow if asthma is present. During the test you inhale increasing amounts of methacholine aerosol mist before and after spirometry. The methacholine test is considered positive, meaning asthma present, if the lung function drops by at least 20%. A bronchodilator is always given at the end of the test to reverse the effect of the methacholine. In all, the only person who can give you the proper diagnoses is your doctor and once you both come to a conclusion as to what type of asthma you may have, what causes your symptoms to arise, and how you can help treat your symptoms, then you can go about living a stress-free lifestyle. TREATMENTS Even though there is no cure for asthma, there are various forms of treatments including; medications, inhalers, nebulizers, and talking to your doctor. Asthma medications can save your life, and there are two basic types of drugs used; steroids and other anti-inflammatory drugs & bronchodilators.

Inhaled steroids are the most important treatment for people with asthma. These medications reduce the swelling and mucus production in the airways. Bronchodilators relieve the symptoms by relaxing the muscle bands that tighten around the airways. There are two types of bronchodilators, short-acting and long-acting. Short acting bronchodilator inhalers quickly relieve the main symptoms. The most commonly prescribed inhaler is albuterol. Long-acting bronchodilators are usually combined with inhaled steroids when

someone's symptoms recur more than once a week despite inhaled treatment alone.

Another type of medication is called prednisone and this is used for a serious asthma attack. It is the most effective asthma medication available, but does cause serious and permanent side effects when used for more than a couple of months unsupervised. Also, there is a nebulizer, which is a breathing machine that changes your asthma medications from a liquid to a mist, so they are more easily inhaled into the lungs. These are more recommended for the elderly, young children, infants, and anyone who has difficulty using an inhaler with a spacer.

Lastly, there is your doctor. You can use your doctor as a reference tool to ask about any new medications or treatments there may be available since it is possible that your previous medications are no longer working. Although asthma is a common disease, it is also a very serious breathing problem that requires proper medical diagnoses and specific treatment. PREVENTION As previously discussed, asthma has no cure, but there are steps you can take to help reduce the chances of asthma symptoms. First off, it is important for you to identify triggers that set off your tidal wave of symptoms. These might include a cold virus, the cold air, pollution, tobacco smoke, and fragrances. This is a process that requires you to detail all of the environmental and emotional factors directly related with your asthma. You can also ask your doctor about allergy skin testing (RAST) to determine which allergens you have become sensitized.

Next, be aware of your allergens so that you know what to stay away from and to avoid or minimize contact with the substance. Also, smoke and asthma are a bad mix. A minimization of your exposure to all sources of smoke, including tobacco, incense, candles, fires, and fireworks. Smoking will always make asthma worse. In addition, try to avoid all people with the cold/flu because your symptoms will worsen if you get infected. Lastly, it is important to get a flu shot every year to protect against the flu virus, which will almost always make asthma worse for many days. People with asthma who get the flu or more likely to catch something even worse, like pneumonia, which will then cause them to be hospitalized. ACTIVITIES It is rather difficult to engage someone who has asthma in activities that require them to move around a lot such as exercising, playing sports, etc... This is why the best activities for people with asthma to participate in should be in relaxation, breathing, and stretching exercises.

Although, activities that involve short, intermittent periods of exertion such as volleyball, gymnastics, baseball, and wrestling are generally well-tolerated by people with asthma. Just because you have asthma does not mean you cannot exercise and maintain a normal and healthy lifestyle. If you consistently are exercising and avoiding your triggers as much as possible, then controlling your asthma and knowing when to take the proper necessary precautions will definitely become much easier in the future.

Sources <http://www.wrongdiagnosis.com/a/asthma/intro.htm> <http://www.cdc.gov/asthma/faqs.htm> <http://www.webmd.com>

com/asthma/guide/asthma-overview-facts Springhouse. Professional Guide to Diseases. 8th ed. Lippincott: Williams & Wilkins, 2005.