PATIENT HANDOUT

Asthma

Stats, Triggers, Treatments and Tips

By Ersilia Pompilio, RN, MSN, PNP

ISTOCK

Asthma is an inflammatory process that occurs in the lungs which causes the bronchioles to narrow and constrict air supply to the rest of the body. It's also known as Acute Obstructive Airway Disease.

Mucus is produced in the lungs triggering the airway to constrict further inducing cough, wheezing, and chest tightness. Breathing becomes difficult and in some instances can cause an emergency.

Asthma attacks can range from mild, moderate to severe requiring emergent hospitalization.

Although there is no cure for asthma, symptoms can be controlled with medication and treatment from a trained healthcare practitioner.

The Stats

According to the CDC 1 in 13 people have asthma (about 25 million) and the numbers are increasing. Women aged 18 years or older are more likely to die from asthma than men. An average of 1 out of every 12 school-aged children has asthma, and 3.4 percent of children with asthma are more likely to use a hospital emergency room. Asthma costs the US economy more than $80 billion annually in medical expenses; days missed from work and school, and deaths, according to research published online in the Annals of the American Thoracic Society.

Triggers

Asthma "attacks" can occur when a person comes into contact with an internal or external substance that can 'trigger" symptoms. Some of these triggers include:

- Tobacco and or cigarette smoke
- Dust Mites
- Outdoor pollution
- Cockroach allergen
- Pets
- Mold
- Smoke from burning wood or gas
- Infections linked to cold, flu, respiratory syncytial virus, sinus infections, acid reflux, breathing in chemicals, food additives, and fragrances
- Exercise
- Strong emotions

Allergic vs. Non-Allergic Asthma

Allergic asthma is the most common asthma diagnosis. It usually is diagnosed by the presence and sensitivity to environmental allergens such as pollen, dust, dust mites, cigarette smoke, pets, and environmental chemicals. The majority of instances of non-allergic asthma occur after middle life and result from recurrent infections of the upper and lower respiratory tract.

Treatment

Frequent asthma attacks can be treated and are preventable. Not everyone who has asthma may get the same treatment or take the same medication. Asthma attacks can be controlled by taking medication as prescribed by a physician, along with eliminating triggers. Medications can come in either pill form or inhaled, breathed in. Asthma medicines come in two types—quick relief and long-term control. Quick-relief medicines control the symptoms of an asthma attack. If you need to use your quick-relief medication more and more, you should visit your doctor or another medical professional to see if you need a different medicine. Long-term control medicines help you have fewer and milder attacks, but they don't help you if you're having an asthma attack.

Peak Flow Meter and Spirometry

A Peak Flow Meter measures your ability to push air out of your lungs. It can be beneficial for adjusting medication for people with severe asthma. People with asthma can use a peak flow meter to monitor their asthma symptoms and consult with their healthcare practitioner on adjusting medications.

Spirometry measures the lung capacity and how much the bronchioles have narrowed in an inflammatory process. It measures the speed your lungs can be filled with air and indicate how well your lungs are performing. Healthcare practitioners use spirometry to better monitor and treat asthma symptoms.

Prevention And Helpful Tips

Adults and children with asthma are more likely to develop pneumonia after getting sick with flu than people who do not have asthma. Asthma is the most common medical condition among children hospitalized with influenza and one of the more common medical conditions among hospitalized adults. The CDC recommends the flu vaccine for all people diagnosed with chronic asthma.

Avoiding Triggers

Avoiding asthma triggers as much as possible will help to keep asthma symptoms better controlled.

Yoga, Deep Breathing and Exercise

Studies have shown exercise, deep breathing and yoga may lead to small improvements in breathing quality. ■

References

- J Allergy Clin Immunol Pract. 2014 Nov-Dec;2(6):645-8; quiz 649. doi: 10.1016/j.jaip.2014.09.004. Epub 2014 Nov 6.
- Cochrane Database Syst Rev. 2016 Apr 27;4:CD010346. doi: 10.1002/14651858.CD010346.pub2.Yoga for asthma.
- Yang ZY1, Zhong HB, Mao C, Yuan JQ, Huang YF, Wu XY, Gao YM, Tang JL.
- Author information https://www.ncbi.nlm.nih.gov/pubmed/27115477
- https://www.cdc.gov/asthma/asthmadata.htm
- https://www.cdc.gov/nchs/fastats/asthma.htm
- https://www.cdc.gov/asthma/triggers.html
- https://www.lung.org/lung-health-and-diseases/lung-disease-lookup/asthma/learn-about-asthma/what-is-asthma.html
- https://www.thoracic.org/about/newsroom/press-releases/journal/asthma-costs-the-us-economy-more-than-80-billion-per-year.php
- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1532783/