How to Treat and Prevent Asthma Attacks with Nutritional Medicine by Ronald Grisanti, D.C., D.A.B.C.O.

Asthma is a disease that affects a person’s essential ability to breathe and is one of the most demanding pathologies on the human being, both physically and mentally. See Asthma Facts chart ▶

Overview
Asthma is a chronic lung disease characterized by bronchoconstriction that is reversible, airway inflammation resulting from edema in the lining of the bronchial tubes, and increased airway responsiveness to a variety of stimuli. Symptoms usually occur during the first five years of life in 65 percent of the patients. A key feature of the disease is a hyper-responsiveness of the airways to various triggering stimuli, which causes the airways to react to irritation with severe bronchospasm and inflammation, resulting in symptoms of wheezing, shortness of breath and tachycardia.

Classifications of Asthma
There are two classifications of asthma: intrinsic and extrinsic. Intrinsic asthma usually develops in adulthood and may begin with risk factors such as cold air, exercise, or emotional trauma. Extrinsic, or atopic asthma, is considered an immunologically mediated condition with a rise in serum IgE.

Dysbiosis: An Overlooked Cause
Dysbiosis refers to a state of disordered or dysfunctional intestinal microflora that causes ill health, which can produce symptoms ranging from mere discomfort to outright disease. The human intestinal microflora is an enormous microcosm that is estimated to contain over 100 trillion living bacteria, comprised of from 100 to 400 different species of bacteria. When dysbiosis develops, toxin-producing intestinal bacteria can cause a wide variety of symptoms.

Many individuals that present symptoms of minor respiratory problems, including allergies, sinus, and asthma, may have dysbiosis. Usually, an overgrowth of Candida albicans is present, causing problems associated with fungal overgrowth, including allergies, food and chemical sensitivities, malabsorption of nutrients, autoimmune disorders and asthma. A primary cause of dysbiosis is the consistent use of antibiotics without supportive probiotics. When an individual takes a course of antibiotics, the drug not only kills off the bad bacteria, it also kills off a majority of the beneficial bacteria.

Digestive complaints are most common, including flatulence, bloating, intestinal pain and inflammation, cramping, and constipation and/or diarrhea. Intestinal dysbiosis should be considered as a contributing factor in patients with asthma and allergies.

Signs and Symptoms
Wheezing, coughing, and dyspnea are the major symptoms associated with asthma and are of variable duration and severity. These symptoms are frequently precipitated by upper respiratory tract infections (viral and bacterial), exercise, exposure to irritants (allergic, chemical and physical), psychological problems or climate. A deterioration in airflow may precede overt symptoms. A diagnosis of asthma should be considered when wheezing and coughing accompanies respiratory difficulty, especially when associated with upper respiratory tract infection in the pediatric population.

Clinical Lab Assessments
Some of the following laboratory testing can provide information necessary for the diagnosis and treatment of asthma. In addition, the tests listed may also give insight to functional metabolism and functional nutrient status in the body.

• Parasites: Gastrointestinal pathogens play a role in efficient digestion and absorption of nutrients as well as the production on toxic metabolic products. A stool evaluation for these microbial agents can provide useful information regarding causes for nutrient deficiencies contributing to the disease process in asthma.

• Allergy and Food Sensitivity Response Assessment: Allergic responses to foods, inhalants, environmental chemicals, and other substances can

Asthma Facts
• 20.3 million Americans report having asthma.
• More than 70% of people with asthma also suffer from allergies.
• The prevalence of asthma increased 75% from 1980-1994. From 1982-1996, the prevalence of asthma increased by 97 percent among women, compared with 22 percent among men.
• 6.3 million children under 18 report having asthma.
• Asthma rates in children under the age of five have increased more than 160% from 1980-1994.
• There were 1.8 million asthma-related visits to emergency departments in 2000 (more than 728,000 of these involved children under 18).
• There are more than 5,000 deaths from asthma annually.
• More than 14 million school days are missed annually due to asthma.
• Asthma accounts for approximately 14.5 million missed workdays for adults annually.
Non-Allergic Causes of Asthma Attacks

- Grass/Tree/Plant pollen
- Animal dander
- Cat hair, saliva, urine
- Dog hair, saliva
- Cockroaches
- Dust mites
- Mold
- Foods (peanuts, corn, citrus, milk, wheat, yeasts)
- Food additives (sulfites, MSG, dyes, other preservatives)
- Pharmaceutical drugs (ASA, beta-blockers, estrogen, NSAID’s, PCN)

Allergic Causes of Asthma Attacks

- Additives
- Air pollution (ozone, smog)
- Chemical odors (cleaners, nail polish, paint)
- Coal smoke
- Cold air
- Cold drink
- Cooking fuel (kerosene, natural gas, propane)
- Emotional stress
- Exercise
- Foods (wine)
- Gastroesophageal reflux (heartburn)
- Heating units (coal, gas, kerosene, wood)
- Infection (upper respiratory)
- Nutritional deficiencies (magnesium, omega-3 fatty acids, selenium, vitamin B6 and vitamin C)
- Paint fumes
- Scents (air fresheners, colognes, perfumes)
- Tobacco smoke
- Weather changes
- Wood smoke

cause a variety of responses that induce or aggravate asthma.

Fatty Acids: There is evidence that increased omega-6 fatty acids and decreased levels of omega-3 fatty acids are involved in the etiology of asthma.

Organic Acids: Organic acids analysis is a useful method for measurement of biochemical intermediates in urine. Vitamin B12 has applications in preventing bronchospasm. Organic acids assay provides an excellent functional assessment of B12. A subset of organic acids, the dysbiosis markers, may provide useful information regarding gastrointestinal pathogens that can contribute to immune compromise.

Magnesium Level: There is considerable attention in the scientific community regarding the significance of magnesium in various chronic disease conditions, including asthma.

Treatment Options

Conventional

Common Medications Include: anti-inflammatory agents, corticosteroids, sodium cromoglycate, Nedocromil Bronchodilators, sustained release theophylline, Ketotifen, anticholinergics

Nutritional Therapy

- Vitamin B6: It was found that people who regularly take theophylline-containing medications could be at a greater risk of developing a vitamin B6 deficiency. In fact, several studies have documented that patients taking theophylline medications do have depressed levels of vitamin B6. Thus, people taking theophylline medications might consider taking additional vitamin B6.

- Vitamin B12: Studies report improvements in asthma patients receiving vitamin B12. Vitamin B12 is also effective in reducing the incidence of bronchial asthma attacks in individuals who are sensitive to sulfites.

- Magnesium: Asthma patients have been found to have significantly lower magnesium levels than normal controls. Low cellular concentrations of magnesium in asthmatic patients are associated with increased airway hyper-responsiveness. Studies report that inhaled magnesium provides a mild bronchoprotective effect for asthmatic patients.

- Eicosapentaenoic Acid (EPA): Administration of 1,800mg/day of EPA to asthmatics produced improvements in symptom score, therapeutic score, asthma score, and peak flow.

- L-Glutamine: Glutamine can reduce intestinal inflammation that leads to increased permeability, with a subsequent enhanced potential for antigen load in the gut. Glutamine is capable of improving intestinal integrity by protecting and rebuilding the mucosal lining of the intestine.

Herbal Medicine

- Cordyceps: Cordyceps has traditionally been used for its improvement in respiration and in individuals with decreased lung function, such as in asthma and bronchitis, by increasing oxygenation.

- Tylophora: Tylophora has been used traditionally in Ayurvedic medicine for problems with the lungs and breathing. Tylophora is used in the nutritional support of bronchial asthma and symptoms of allergies. Numerous studies report the beneficial effects of tylophora in the treatment and management of bronchial asthma.

Diet & Lifestyle

- Drink plenty of quality water.
- Avoid food additives, coloring and preservatives (aspartane, dyes, MSG).
- Avoid refined, pre-packaged and boxed foods, when possible.
- Be cautious of excess salt intake.
- Avoid alcohol, soft drinks and chronic use of caffeine and sugar-containing beverages.
- Reduce dietary arachidonic acid, which can lead to inflammatory mediators (leukotrienes) and precipitate asthmatic attack; diet should be low in meat, eggs, shellfish, vegetable oils (omega-6), and dietary fat. Reduce excess carbohydrate load, especially refined carbohydrates (may increase insulin secretion and inflammation).
- You may want to begin a “vegan” diet—elimination of all animal products, including dairy.
- Patient education, including initiation of home peak flow monitoring and aiding in establishing a self-management program.
- Proper diet and exercise program.
- Address allergy issues and potential immune-triggering events.
- Make sure that the home is free of any mold or mildew problems.
- Limit the use of carpet, whenever possible.
- Take steps to purify whole house air.
- Use hypoallergenic bedding and wash bedding frequently.

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