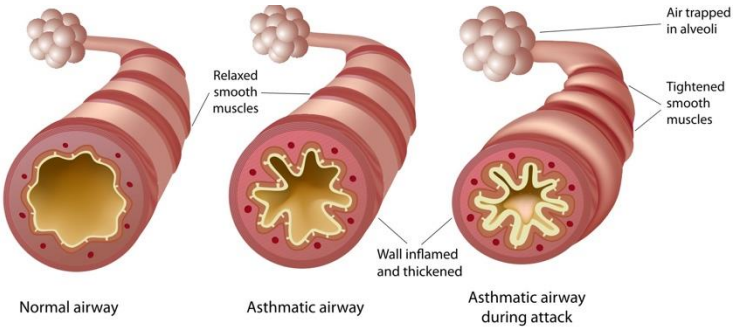
Atopic Asthma

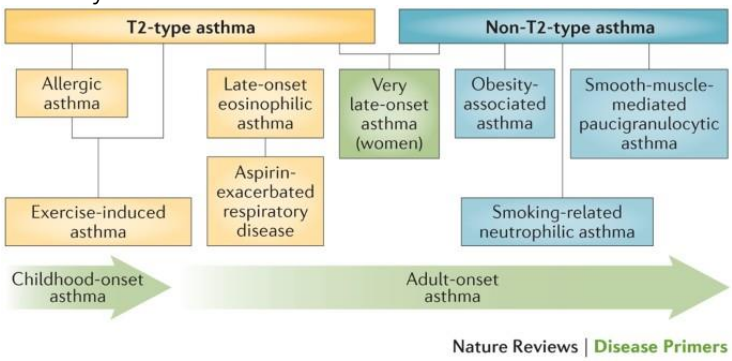
An individual with atopic asthma will have mast cell-bound IgE molecules residing in their airway. Inhalation of the offending allergen can lead to cross-linking of the adjacent IgE, causing mast cell activation and the release of mediators. In the lungs, high levels of mediators including histamine and other pro-inflammatory mediators caused by an allergic reaction create chronic inflammation and narrowing of the airway which is the pathological event underlying most asthma cases. Symptoms can include, wheezing, coughing, and chest tightness as the airways become restricted and inflamed. The symptoms may flare-up with difficulty breathing during an asthma attack when the smooth muscles of the airways become restricted.



Early Phase Response: Asthma symptoms can occur immediately (early-phase response) or some hours after allergen exposure (late-phase response). Many immune cells and mediators are involved in the asthmatic response and all play a role in the evolution of both the early and late responses. In the early asthmatic response after allergen exposure, inflammatory mediators, including large quantities of histamine, are released from mast cells on the mucosal surfaces. Histamine causes immediate bronchoconstriction and bronchospasm, resulting in narrowing of the bronchioles. Leukotrienes, also released from mast cells, are also potent bronchoconstrictors of airway smooth muscle, amplifying the action of histamine. Leukotrienes also increase microvascular permeability, resulting in edema and narrowing of the airways and stimulation of the secretion of mucus in the lower respiratory tract. Prostaglandins, released by mast cells, are also involved in the early-phase response.

Late Phase Response: About 60% of patients will experience late-phase response. The late asthmatic response involves the infiltration of the airways with inflammatory cells and mediators, in particular eosinophils, which results in airway narrowing and associated bronchial hyperresponsiveness with bronchial smooth muscle over contraction. Atopic individuals who have the genetic tendency to develop allergic diseases have increased levels of the cytokine inflammatory mediator IL-5 produced by their immune cells such as mast cells and T-lymphocytes. This IL-5 mediator stimulates the production of eosinophils and also attracts them to the site of inflammation. Eosinophils play an important role in the pathophysiology of late response asthma and the associated inflammation and bronchoconstriction. They produce a host of enzymes, proteins, and mediators causing epithelial tissue damage. This damage contributes to chronic changes such as airway remodeling and airway hyper-responsiveness. Symptoms can include shortness of breath as well as an increased chance of lung infections as the lining of the airways can become damaged, making it easier to allow bacteria to harbor. In severe cases, the asthmatic airway can lead to the development of COPD.

In chronic allergic asthma cases, the individual's bronchial epithelium is not fully matured and inflammatory cells and eosinophils are accumulated in the bronchial mucosa. This allows allergens to easily trigger allergic reactions with airway inflammation and smooth muscle constriction continuously. The lack of tissue maturation also increases the susceptibility of the bronchial epithelium to allergen-induced injury with an ineffective repair mechanism during chronic allergen exposure.[1] It is similar to that observed in chronic wounds and pathological scaring which involves massive apoptosis of inflammatory cells and accumulation of myofibroblasts. The epithelialization remains incomplete and epithelial integrity can't be restored and the inflammation can't be resolved.[1] This leads to tissue remolding with the



extracellular matrix deposition and deformation of the normal tissue causing irreversible airflow obstruction and impaired pulmonary function.

Non-Atopic Asthma

Asthma is usually diagnosed in childhood. In many patients the symptoms will disappear or are significantly reduced after puberty. After age 20, symptoms may begin to reappear. In some cases, asthma will be first diagnosed over the age of 20 years old, e.g. at the age of 50, 60, or even later. This type of asthma is called adult-onset asthma. Unlike children who often experience intermittent asthma symptoms in response to allergy triggers or respiratory infections, adults with newly diagnosed asthma generally have persistent symptoms including wheezing, dry cough, shortness of breath after exertion, and chest tightness. Childhood onset asthma is usually atopic asthma which is caused by an allergy. Although ~30% of adult asthma cases are triggered by exposure to irritants such as cigarette smoke, chemicals, mold, dust, or other substances commonly found in the person's environment, many adult-onset asthma cases are non-atopic and do not get triggered by an allergy.

The bronchi inflammation and bronchi smooth muscle constriction in these asthma cases are induced by internal toxins. The toxins may come from infections from viruses, mycobacteria, other infectious agents, or hormonal fluctuations caused by conditions such as menopause. The smooth muscle of the blood vessel that supply blood to the bronchi can also become restricted in non-atopic asthma patients and it can cause reduced blood flow to the bronchi. Low oxygen supply causes an increased level of free radicals which further irritate the bronchi and cause bronchi inflammation.

Wellness Recommendation

Asthma and the resulting symptoms caused by airway narrowing, inflammation, and bronchial smooth muscle hyper-contraction is referred to as Liver Wind in TCM. Normally, Liver Qi ascends, and the Lung Qi descends. The upward Liver Qi and the downward Lung Qi are supposed to be coordinated. If there is Liver Wind, the descending Lung Qi can become defective and the coordination of the Liver Qi and Lung Qi will be disrupted which results in the asthma condition.

Atopic Asthma

The wellness recommendation for patients with atopic asthma includes EZ-Air. EZ-Air clears Liver Wind and helps clear the inflammation as well as the histamine and proinflammatory cytokine mediators in the airways to resolve the allergic reaction and the resulting asthma symptoms. EZ-Air also helps to restore the integrity of the inner lining of the respiratory tract to avoid the airway overreaction to external allergens to resolve asthma that is in acute and chronic conditions. Herbal ingredients in EZ-Air have strong anti-inflammatory effects. Forsythiae Fructus, for example, has been shown to inhibit the release of prostaglandins and histamine in numerous studies as well as has shown anti-inflammatory effects in reducing swelling and edema.[2] Through reducing inflammation, inhibiting histamine and cytokine release as well as completing the epithelialization process, EZ-Air creates an environment in which allergens cannot enter into the smooth muscles of the respiratory tract and will not cause an overreaction, therefore reducing and eliminating symptoms of asthma. Patients can experience symptom relief in a couple of hours and two weeks of the product is recommended for significant improvement.

Following the initial two weeks of treatment, patients will experience significantly reduced symptoms in the next attack when another two weeks of treatment (2nd round) is recommended. Following the 2nd round of treatment, if patients still experience an asthma attack, which usually exhibits even milder symptoms, a 3rd round of treatment is recommended. Patients should have a sustained treatment results after 3 rounds of treatment. If patients also have hay fever symptoms due to allergy in addition to the asthma, Bitter or Bitter Plus is also recommended together with the EzAir.

For patients who have developed asthmatic COPD with airway tissue deformation as well as airflow obstruction and impaired pulmonary function, Soup A, Soup B and LC Balancer are recommended. Soup A helps repair the airway damage. Soup B helps dissolve the airway scarring. LC Balancer enhances microcirculation and helps improve the nutrient absorption in the digestive tract and nutrient delivery to the airway tissue. Patients can experience

improvement of shortness of breath in one week and 2-4 weeks of protocol is recommended for a significant improvement with sustained results.

Non-Atopic Asthma

The wellness recommendation for patient with non-atopic asthma includes Breez, Brown, and LC Balancer. Breez also clears Liver Wind. It helps relieve the constriction of the smooth muscles in the bronchi and blood vessels to improve blood flow to the smooth muscles of the upper body including the respiratory tract. Grassleaf Sweetflag Rhizome, an herbal ingredient in Breez, has been shown to be effective against asthma due to its bronchodilator effects as well as its ability to smooth and stimulate blood circulation.[3] Brown and LC Balancer help support the body in removing the toxins causing the irritation by improving liver and kidney health. Brown and LC Balancer can also help to address the hormone imbalance in menopause induced asthma patients. Patients can experience symptom improvement in 1 day and 2-3 weeks of treatment may be required for significant improvement and sustained results. By clearing the Liver Wind, Breeze in combination with Brown and LC Balancer can also help lower high blood pressure.

Condition	Recommendation
Atopic Asthma	EzAir
+ Hay Fever Symptoms / Allergies	Bitter or Bitter Plus
+ Asthmatic COPD	Soup A, Soup B, LC Balancer
Non-Atopic Asthma	Breez, Brown, LC Balancer

Selected Case Study

Case: Successful Resolution of Allergies, Asthma & Sinusitis

Hasna Tiffany Wood, LAc

A female patient, age 67, had come for treatment as she had been diagnosed with multiple conditions including severe allergies, chronic pain, obesity, digestive abnormalities (e.g. Candida) as well as cardiovascular disease, corona artery disease, arrhythmia, reduced blood flow in her legs, plaque in her arteries, high cholesterol, hypertension, adrenal fatigue as well as potential thyroid problems. The MDs had prescribed an endless list of medication.

A combined program was prescribed. It consisted of acupuncture, facial massage, dietary changes as well as herbal remedies. More specifically, the patient was treated with Bitter and EZ-Air (against allergies) for two weeks from Wei Laboratories. After another two weeks with B2 and Apro, also from Wei Labs, her sinusitis had been completely cleared. Soup A and LC balancer were applied in the following three weeks (preventative). The total treatment lasted for about 3 months (2-3 times a week).

After a few sessions the patient had improved significantly. Her cough had been greatly reduced. The wheezing was practically eliminated. After 6 weeks into the program her sleep apnea had been completed eliminated. The patient's nasal inflammation was gone (no stuffed nose, no wheezing). The patient's energy level had increased dramatically. The results have been sustained ever since and the patients is very happy with the results.

References:

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2. Kim MS, Na HJ, Han SW, Jin JS, Song UY, Lee EJ, Song BK, Hong SH, Kim HM. Forsythia fructus inhibits the mast-cell-mediated allergic inflammatory reactions. Inflammation. 2003 Jun;27(3):129-35. doi: 10.1023/a:1023865727780. PMID: 12875366.

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