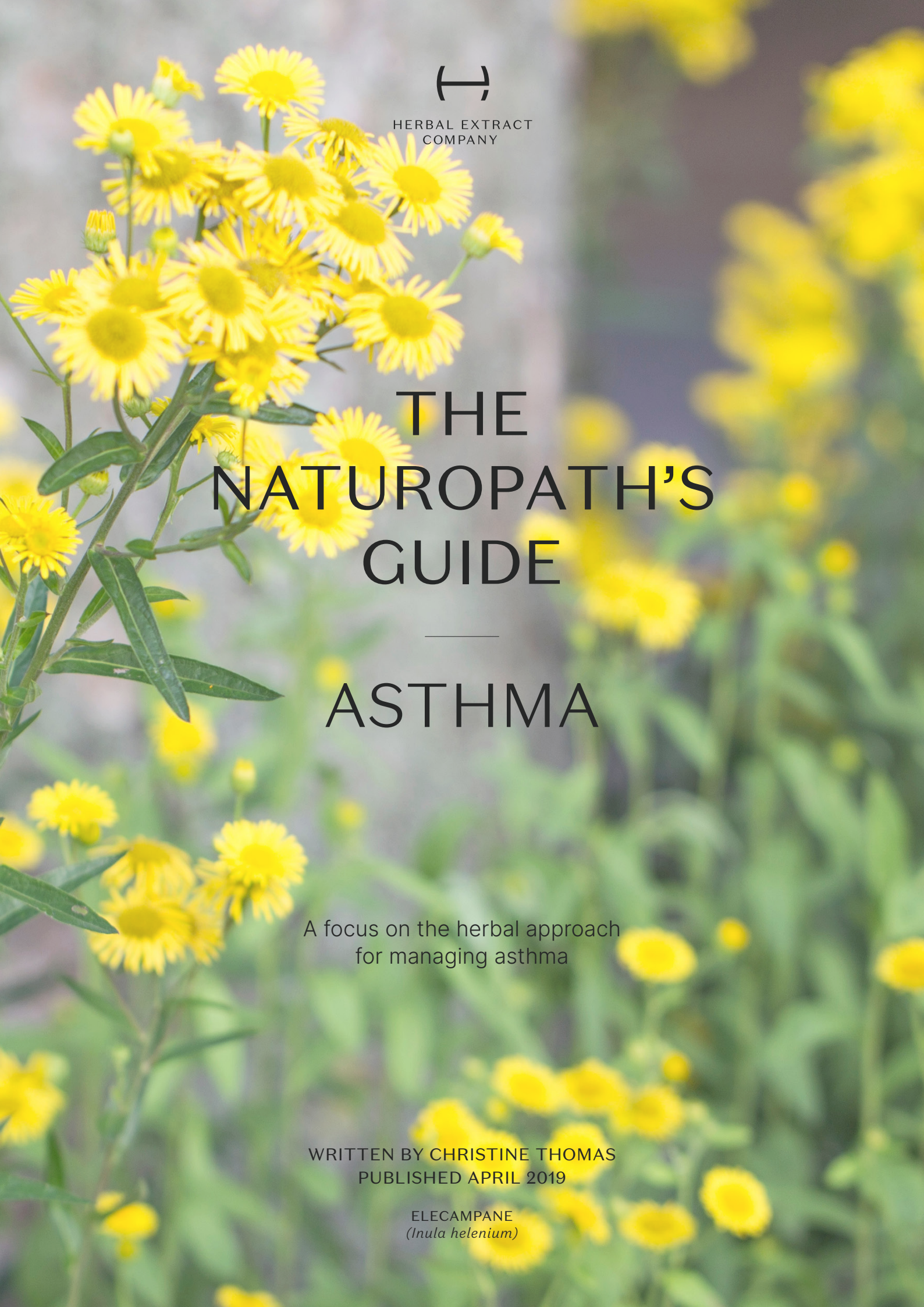

HERBAL EXTRACT COMPANY

THE NATUROPATH'S GUIDE

ASTHMA

A focus on the herbal approach for managing asthma

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ELECAMPANE
(Inula helenium)

ASTHMA

You will never know just how much you value your breath until you can't breathe.

Asthma is a common chronic inflammatory respiratory condition affecting the airways of the lungs characterised by mild to severe difficulty in breathing.

Condition Overview

Asthma is a reversible obstructive lung disorder involving increased responsiveness of the airways. People with asthma experience episodes of wheezing, breathlessness and chest tightness due to widespread narrowing of the airways. The severity of asthma can vary from a minor nuisance for some, to a major problem for others, that can interfere with daily activities. In rare cases asthma attacks can be life threatening. It is now impacting approximately 2.7 million Australians, or 11.2% of the population, compared to 2.5 million or 10.8% in 2014/15. Asthma may affect people of all ages and while there is no known cure it can usually be managed through treatment and managing lifestyle behaviours which can assist in avoiding and reducing asthma symptoms.

Asthma is generally divided into two types: allergic asthma (atopic or extrinsic) caused by allergic responses to house dust, animal fur or various foods and nonallergic asthma (intrinsic) caused by genetics, structural problems, infections, pollutants and stress, both physiological and psychological. Asthma is divided into four stages and only stage one and mild stage two attacks are appropriate for self-treatment. More severe stage two and all stage three to four asthma attacks require immediate medical attention. The disease progress is complex but involves airway inflammation, intermittent airflow obstruction and bronchial hyperresponsiveness. This is when the airways inappropriately respond to an asthma trigger. Without a proactive approach chronic uncontrolled asthma can cause airway remodelling and the potential for permanent bronchial obstruction. Although asthma does not kill on the scale of chronic obstructive pulmonary diseases failure to use appropriate drugs or comply with treatment, coupled with an under recognition of the severity of the problem, can lead to unnecessary deaths most of which occur outside hospital.

Common Symptoms

The symptoms of asthma may be subtle, and differ greatly in frequency and degree, but the most common symptoms are:

- wheezing: a continuous, high-pitched sound coming from the chest while breathing. Note this is not noisy breathing, such as a rattling sound, which is common in healthy babies and preschoolers.
- shortness of breath: a feeling of not being able to get enough air.
- a feeling of tightness in the chest.
- coughing.

Risk Factors

The underlying causes of asthma are still not well understood although there is evidence that factors which increase the risk of developing asthma include environmental and lifestyle factors such as air pollution and repeated viral respiratory infections, as well as family history, gender and genetic factors such as an allergic tendency. Smoking, house dust mites, grasses, pollens, living in an urban environment, stress and obesity are also linked to asthma development. Dietary patterns and digestive factors including low levels of dietary antioxidants, gastroesophageal reflux, fast food and poor diet quality, formula milk feeding and gut flora imbalance have been implicated. A diet high in sodium may be associated with more severe asthma symptoms in some patients. Although not conclusive there is evidence to suggest that vaccination appears to increase the risk of allergies and related respiratory symptoms in children and adolescents. Some studies show breast feeding reduces the risk of developing asthma. Sex hormones are important in regulating the development of asthma.

Common triggers for acute asthma episodes include perfumes, smog, cigarette smoke, humidity, exercise, dry air, cold air, viral infections (especially sinusitis), pollen, foods (especially dairy) and animal dander.

Early life events and exposures, even in utero, can play a significant role in the natural history of asthma emerging into persistent, problematic, and/or chronic obstructive pulmonary disease in certain people. These include low birthweight, preterm birth, young maternal age and male gender. Identifying these at risk people at the earliest possible time for early intervention could optimise lifespan outcomes. In asthmatic patients this relates to prevention of asthma exacerbations, lung function decrease and even disease onset.

How To Get The Correct Diagnosis

There is no single test for asthma. Doctors make the diagnosis of asthma when a person has breathing symptoms typical of asthma that come and go and there is also evidence that sometimes air does not flow in and out of their lungs normally. Conventional testing for asthma includes spirometry and skin prick testing.

Conventional Treatment & Prevention

Asthma is a chronic condition and usually requires continuous medical care including routine symptom and lung function monitoring, patient education and pharmacological therapy. The main aims of asthma treatment are to keep symptoms under control, prevent flare-ups or ‘attacks’, keep the lungs as healthy as possible and to stop asthma from interfering with school or work.

Treatment depends on many factors and includes inhaled corticosteroids, inflammatory modifiers, avoidance of triggers and inhaled vasodilating drugs. Although these medications are useful in emergencies they all have side effects, especially with long term use. Patients with moderate to severe asthma may have to take long term medication daily (for example anti-inflammatory drugs such as inhaled corticosteroids) to control the underlying inflammation and prevent symptoms and attacks. If symptoms occur short term medications (for example inhaled short acting beta2-agonists such as salbutamol or Ventolin which work on the bronchospasm) are used to relieve them.

General practitioners (GPs) play a central role in the management of asthma in the community. This includes assessment, diagnosis, prescription of regular medications, provision of written action plans and regular review as well as managing acute exacerbations. People with asthma require admission to hospital when flare-ups or ‘attacks’ are potentially life threatening or when they cannot be managed at home or by a GP.

INTERVENTION	Adaptogens, nervines and sedatives	Antiallergic and immunomodulators	Anticatarrhals, mucoprotective, bronchodilators and expectorants	Anti-inflammatories and antioxidants	Antimicrobials, demulcents and digestives	Antispasmodics and spasmolyics
Aniseed		✓	✓	✓	✓	✓
Astragalus	✓	✓		✓	✓	
Calendula		✓		✓	✓	✓
Elecampane			✓	✓	✓	✓
Grindelia			✓	✓		✓
Hemidesmus		✓		✓	✓	
Ivy Leaf			✓	✓	✓	✓
Liquorice	✓	✓	✓	✓	✓	✓
Mullein			✓	✓	✓	✓
Perilla		✓		✓		
Ribwort		✓	✓	✓	✓	
Thyme			✓	✓	✓	✓

Natural Therapies For Treatment & Prevention

Like autoimmune disease, asthma is a complex, chronic disturbance of the immune system therefore treatment goals will endeavour to promote regulation of the immune system. Thus the primary aim of naturopathic treatment of asthma is to treat the underlying causes of immune hyperreactivity and moderate reactions to triggers. On a biochemical level the immune system is releasing histamine and inflammatory chemicals in response to normally benign situations and triggers. The treatment goals will vary according to the needs of the individual but also incorporate the most likely factors operating in asthma.

Traditional herbal medicine recognises the role of inefficient digestion, poor immunity, stress, diet and unhealthy mucous membranes in the development of asthma. Initially naturopathic treatment could enhance bronchodilation and promote expectoration, and then modulate the immune response through correction of underlying factors, such as dysbiosis and increased intestinal permeability. Supporting the nervous system to reduce the stress response, which is likely to be both a contributing factor and a response to illness, should also be a significant part of naturopathic treatment in asthma.

Herbal treatments for asthma are directed at preventing or supporting recovery from an asthma attack rather than treating an acute episode. An acute asthma attack requires immediate medical care.

Some people are able to stop medications completely but this needs to be considered carefully.

A therapeutic approach could include these factors:

- Enhance bronchodilation.
- Promote expectoration if required.
- Modulate the immune response.
- Determine allergies (see dietary and lifestyle suggestions) and correct underlying digestive dysregulation including gastrointestinal tract

Perilla
(Perilla frutescens)

dysbiosis and increased intestinal permeability (leaky gut).

- Identify allergic triggers and encourage avoidance or control.
- Support the nervous system to reduce the stress response.

Dietary Suggestions for Asthmatics

- Avoid possible allergens or trigger foods: Common foods causing sensitivities include eggs, fish, shellfish, nuts and peanuts, dairy, chocolate, wheat, citrus, food colourings, additives and preservatives, such as monosodium glutamate (MSG), and especially sulphites which have been linked to asthma episodes (sulphites are common in wine, beer and dried fruit). Many asthmatics have low gastric hydrochloric acid (HCL) which contributes to food allergies and sensitivities.
- Increase dietary Omega 3 fatty acids and decrease animal fats.
- Assess for any nutrient deficiencies: A number of nutrient deficiencies have been associated with asthma and include vitamins C, E and D, magnesium, potassium, selenium as well as fatty acids.

Lifestyle Suggestions

- Avoid smoking and exposure to second hand smoke.
- Smog and high ozone levels can act as triggers for asthma. Air conditioners and air purifiers (with Hepa filters) can reduce particulates and indoor pollution.
- Avoid exposure to inhaled irritants such as dust and powders.
- Clean rugs and bedsheets regularly to reduce dust mite populations. Use hypoallergenic sheets, pillows, pillow cases, curtains, etc.
- Keep pets out of bedrooms and vacuum frequently to reduce exposure to animal dander.
- Humidify household air in the winter as dry air can act as a trigger.
- Nasal breathing instead of mouth breathing warms cold winter air which can act as an asthma trigger. The Buteyko breathing method has been shown to increase asthma control by restoring comfortable, natural nasal breathing.
- Attempt to remove household triggers including mould, mildew, cockroaches, perfumes, high VOC (volatile organic compounds) paints and many household cleaners.
- Stress can trigger asthma attacks. Strategies to address stress such as meditation and yoga can help reduce the number and severity of asthma episodes.
- Overexertion or excessive exercise may trigger an asthma attack so regular, less intensive, periods of exercise are more appropriate.
- Avoid use of aspirin and other non-steroidal anti-inflammatory drugs which can provoke asthma attacks.

"Grindelia is traditionally used for respiratory conditions characterised by spasm such as asthma."

Potential Treatment Plans

Allergy	Astragalus	Echinacea	Hemidesmus	Perilla	
Bronchial asthma	Aniseed	Astragalus	Calendula	Grindelia	
Night cough	Elecampane	Ivy Leaf	Liquorice	Ribwort	Thyme
Chronic asthma	Elecampane	Hemidesmus	Liquorice	Mullein	Thyme

Aniseed
(Pimpinella anisum)

Desired Herbal Actions and Potential Herbs Include:

Adaptogen, Nervine and Sedative

Stress can be a trigger, or asthma can become a source of stress and concern which then in turn triggers attacks. Reduce the physical effects of stress, anxiety and tension with herbs which include astragalus, bupleurum, Californian poppy, herbal vitality, liquorice, passion flower, St John's wort, valerian.

Antiallergic

Reduce airway sensitivity and tone down the allergic response to triggering allergens. Herbs include albizia, baical scullcap, ginkgo, heartsease, hemidesmus, Korean ginseng, reishi.

Anti-catarrhals and Mucoprotective

Improve the health of mucous membranes, assist in treating sinusitis and aid the body in reducing the excessive secretion from the mucous membranes. Herbs include eyebright, golden rod, golden seal, herbal head cold, hyssop, liquorice, mullein, ribwort.

Anti-inflammatory

Reduce inflammation. Herbs include aniseed, astragalus, bupleurum, calendula, coleus, elecampane, ginger, ginkgo, grindelia, heartsease, ivy leaf, liquorice, maritime pine, mullein, rehmannia, reishi, ribwort, schizandra, turmeric.

Antimicrobial

To assist in eliminating infections or if there is potential for secondary infections. Herbs include andrographis, aniseed, astragalus, baical scullcap, calendula, echinacea, elecampane, ivy leaf, liquorice, mullein, ribwort, St John's wort, thyme, turmeric.

Antioxidant

Improve antioxidant status. Herbs include aniseed, astragalus, baical scullcap, calendula, herbal head cold, herbal vitality, liquorice, ribwort, thyme, turmeric.

Antispasmodic and Spasmolytic

To ease the spasm response in the muscles of the lungs. Herbs include aniseed, black cohosh, calendula, Californian poppy, elecampane, grindelia, hyssop, ivy leaf, liquorice, mullein, passion flower, thyme, valerian.

Bronchodilator

Relax the bronchial smooth muscle and reduce bronchoconstriction and spasm. Herbs include adhatoda, aniseed, coleus, ginger, ginkgo, grindelia, horseradish, ivy leaf, liquorice, thyme.

Demulcent

Contain mucilage and have soothing and anti-inflammatory effects and support the expectorants. Herbs include liquorice, marshmallow, mullein, ribwort, slippery elm.

Digestive

Low HCL gastric deficiency is due to deficient vagal output so the use of bitter herbs, which act through a vagal reflex to increase gastric digestion, is indicated to help increase gastric acid. Herbs include coleus, elecampane and bitters such as andrographis, gentian, golden seal and warming digestives such as cinnamon, ginger, herbal liver support.

Expectorant

Clear the airways and relieve coughing. Herbs include adhatoda, aniseed, bupleurum, elecampane, fennel, grindelia, heartsease, hyssop, ivy leaf, liquorice, mullein, ribwort, thyme.

Immunomodulator

Improve immunity and control acute respiratory infections. Herbs include andrographis, aniseed, astragalus, calendula, cat's claw, echinacea, hemidesmus, herbal head cold, liquorice, ribwort.

Herbal Support Could Include:

HERB NAME	DESCRIPTION	ACTIONS
Aniseed *(Pimpinella anisum)* 	Aniseed is generally recommended as a carminative and digestive agent however experiments have shown the bronchodilatory and anti-inflammatory effects of aniseed confirming its effectiveness in the treatment of bronchial asthma.	Antispasmodic Immunomodulator Antioxidant Antimicrobial Expectorant
Astragalus *(Astragalus membranaceus)* 	Traditionally known as a powerful immune strengthening herb which has a special affinity for the lungs and helps strengthen them. Here it attenuates inflammation, airway responsiveness and other markers that are associated with allergen induced asthma. It may also help to modulate some of the pathological processes involved in the development of chronic asthma. Astragalus improved allergic asthma in a 2018 trial on 80 children by regulating the levels of cells that modulate innate immune responses.	Immunomodulator Antioxidant Adaptogen Antimicrobial
Calendula *(Calendula officinalis)* 	A recent preclinical study designed to investigate the scientific basis for the traditional claim of calendula on asthma found it has anti-asthmatic activity on different animals.	Antimicrobial Anti-inflammatory Antioxidant Immunomodulator Antispasmodic
Elecampane *(Inula helenium)* 	Has a long history of use as a tonic herb for the respiratory system and is specific to bronchial infections. It is warming and clearing to the lower respiratory system and along with moving stuck mucous, and restoring healthy mucous, it is strongly antimicrobial. While most commonly used for congestion in the lungs it can also be used for stuck mucous in the sinuses or to correct post nasal drip. In addition to being an excellent expectorant it also soothes the tissue irritation and inflammation that results from coughing.	Expectorant Carminative Antimicrobial Spasmolytic Anti-inflammatory

Herbal Support Could Include: (Cont.)

HERB NAME	DESCRIPTION	ACTIONS
Grindelia *(Grindelia robusta)* 	Traditionally used for respiratory conditions characterised by spasm such as asthma. The British Herbal Pharmacopoeia 1983 lists the specific indication as bronchial asthma with tachycardia. It helps to relieve the wheezing, coughing and bronchial restriction associated with asthma.	Expectorant Spasmolytic Anti-inflammatory
Hemidesmus *(Hemidesmus indicus)* 	Traditionally hemidesmus, known as Indian sarsaparilla, was used to treat asthma in the system of Ayurveda. A recent study confirmed that the ethanolic extract of hemidesmus exhibits significant dose dependent anti-asthmatic activity in various in vitro and in vivo animal models and further supports the traditional claim of plant in the treatment of asthma.	Antimicrobial Anti-inflammatory Antioxidant Demulcent Immunomodulator
Ivy Leaf *(Hedera helix)* 	Has been widely used to treat bronchial asthma for many years. A recent double blind, placebo controlled, randomised crossover study on 30 children indicated that children with mild uncontrolled asthma, despite regular inhaled corticosteroid therapy, might benefit from an additional therapy with ivy leaf. An earlier review of randomised controlled trials reported that ivy leaf extract improved lung function in children with bronchial asthma.	Expectorant Antispasmodic Anti-inflammatory Bronchodilator Antimicrobial
Liquorice *(Glycyrrhiza glabra)* 	Soothes the lungs and helps to strengthen adrenal function. It is useful for dry, irritating, spasmodic coughs and asthma. A recent study concluded that liquorice can be used as prophylaxis and for relieving the symptoms of chronic bronchial asthma due to its efficacy. Fifty-four asthma patients participated in the randomised, open and comparative clinical study.	Adaptogen Antispasmodic Anti-inflammatory Expectorant Antioxidant Adrenal tonic Mucoprotective Demulcent Antimicrobial Immunomodulator

Herbal Support Could Include: (Cont.)

HERB NAME	DESCRIPTION	ACTIONS
Mullein *(Verbascum thapsus)* 	A traditional Western herb for strengthening and healing the lungs. History has shown that mullein provides cough relief related to various respiratory illnesses including asthma.	Demulcent Anti-inflammatory Antimicrobial Antispasmodic Expectorant
Perilla *(Perilla frutescens)* 	Perilla is listed in the Chinese Pharmacopoeia and has been used for centuries there in traditional Chinese medicine (TCM) as a medicinal plant for asthma. In an animal study airway hyperresponsiveness was alleviated by an ethanolic extract of perilla suggesting it is a potential herbal medicine for immunomodulation.	Antiallergic Anti-inflammatory Antioxidant
Ribwort *(Plantago lanceolata)* 	Specifically for lung weakness that contributes to asthma ribwort reduces airway inflammation, soothes the respiratory tract and reduces coughing episodes which contributes to building up the health of the lungs. The Commission E approved the internal use of ribwort for catarrhs of the respiratory tract.	Anti-inflammatory Antioxidant Expectorant Anticatarrhal Antimicrobial Demulcent Immunomodulator
Thyme *(Thymus vulgaris)* 	Traditionally used for breathing difficulties and used to address all types of asthma. The plant was noted in the first century CE by the Roman Pliny the Elder in his writings on plants as used for asthma and shortness of breathing. Recent in vivo studies on a constituent in thyme promote the potential for its use in asthma where it may decrease inflammatory responses, particularly with allergic varieties of the condition.	Anti-inflammatory Expectorant Antimicrobial Antispasmodic Antioxidant Bronchodilator

Liquorice
(Glycyrrhiza glabra)

Conclusion

Herbal medicine can be used alongside conventional medication to support and alleviate asthma symptoms and improve overall health. This will lead to improved asthma management over the longer term. While naturopathic treatments have a significant role in preventing and managing asthma, patients with asthma should be strongly counselled about the importance of continuing conventional treatments for asthma in the acute phase of treatment.

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