

Terry Talks Nutrition

IMPROVING THE HEALTH OF AMERICA



# **BOSWELLIA: STOP 5-LOX INFLAMMATION**

**The Natural Answer For:**



- **Arthritis pain**
- **Asthma**
- **Irritable bowel syndrome (IBS)**
- **Cancer and more**

**In-Depth Booklet Series**

## Discover Nature's Disease-Fighter: Boswellia

Boswellia is one of the most important botanical ingredients available, and can fight diseases better than conventional medications, and even other medicinal herbs.

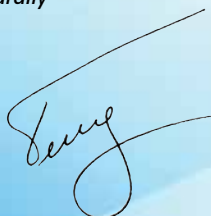
In this booklet, you'll learn how boswellia can:

- Inhibit tumor growth and the spread of cancer
- Fight 5-LOX inflammation—a common factor of many diseases—better than conventional medicines
- Stop asthma, allergies, COPD, and other respiratory disease symptoms
- Relieve pain from exercise and arthritis
- Soothe the difficult digestive symptoms of IBS, IBD, Crohn's, and colitis

### The Boswellia I Recommend

The boswellia extract I recommend is standardized to at least 10 percent AKBA (acetyl-11-keto- $\beta$ -boswellic acid) with all of the good components you need (but not at artificially high levels). Unstandardized boswellia supplements can't come close to the healing power of this specialized extract. You'll also see that I recommend boswellia with essential oils, depending on the disease in question. That's because these particular essential oils work very well synergistically to stop respiratory, intestinal, joint, and other health conditions.

To your good health,  
Terry...*Naturally*

A handwritten signature in black ink, appearing to read "Terry", with a long, sweeping underline that extends to the right.



## Boswellia—The Answer to Many Diseases

Boswellia has the ability to stop the leading causes of most diseases: inflammation and oxidation. That covers a very wide variety of problems including asthma, arthritis pain, irritable bowel syndrome (IBS), and even cancer. The answer is getting the right balance when it comes to inflammation and oxidation. When these two are out-of-balance—disease can occur. Boswellia can make all the difference in bringing back the balance. While there are conventional options and over-the-counter and prescription drugs that can relieve inflammation, they do so at a heavy cost. They create serious health risks to your liver, stomach, and brain, and can only be used in very limited ways. But boswellia—properly extracted and standardized—will help you overcome virtually any health issues, and can be used every day, without risk.

Let's get to the facts.

### The Source of Boswellia

Native to India, the boswellia tree thrives in very dry environments. While found in the Arabian Peninsula and various other places, the *Boswellia serrata* species is found in India and South Asia. The resin from this particular type of boswellia is the one that's a recommended botanical medicine in Ayurvedic and Traditional Chinese Medicine (TCM) practice.

Traditionally, gathering the resin from the tree (considered the beneficial part of the plant) is a very hands-on form of harvesting. The process bears some resemblance to collecting sap to make syrup from sugar maples. When the bark of the tree is scraped, it secretes a resin called "tears."



Now that you can picture where boswellia begins, there's something you need to understand before we delve into all the ways that this wonder from nature can improve your life. It's time to get a basic understanding of 5-LOX.

## Understanding 5-LOX Inflammation

Most people don't go around talking about inflammation pathways, but to understand how boswellia can make a difference in your health, it's important for you to understand more about how inflammation works.

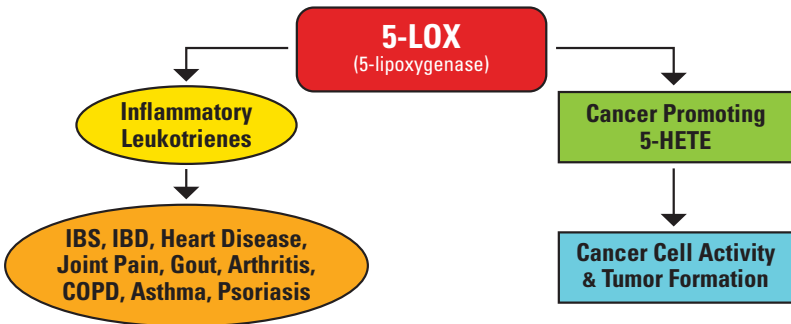
When we hear the word "inflammation", we typically think about sore muscles, or allergic responses. But, inflammation at a cellular level can easily be considered a root cause of virtually every disease state in the body.

*"Boswellia" and "frankincense" are often used interchangeably. That's because there are different subtypes of the boswellia tree, each producing resins with slightly different medicinal components. In addition, the resin can be extracted with different methods. Most often, it's called frankincense when it's extracted for use as an essential oil. When the purpose is an oral extract, it's most often called simply, boswellia.*

## The Botanical that Fights 5-LOX

While the use of boswellia resin dates back thousands of years in Ayurvedic medicine, it is only in recent decades that the full potential of extracted boswellic acids from boswellia resin have been studied in earnest. **Unlike conventional drugs, which usually target only one single pathway, boswellia affects multiple pathways in the body.** Its most important benefit is its ability to modulate a particular inflammation pathway called the 5-LOX (5-lipoxygenase) pathway. The 5-lipoxygenase enzyme activates inflammatory leukotrienes, compounds that contract smooth muscle tissues in the body. If you've ever had an asthma attack, you already know about that. Not surprisingly, 5-LOX inflammation is also associated with allergies and COPD. Additionally, it is a factor in arthritis, irritable bowel syndrome (IBS), Crohn's disease, and colitis. Boswellia is also being investigated in innovative cancer research and has been shown to have the power to inhibit cancer cell growth.

### Boswellia Reduces 5-LOX Activity!



*It's clear! For so many reasons and diseases, boswellia is the answer to reducing 5-LOX activity.*

When I discuss boswellia, most people are surprised to learn that it is one of the very few botanical ingredients that fights 5-LOX inflammation. Even curcumin, one of my favorites, doesn't have the same level of effect. And unlike conventional drugs, boswellia causes *no side effects*.

Of course, different types of leukotrienes create inflammatory havoc throughout the body. The thing to remember is that while some medications interfere with leukotriene receptors—in a sense, interrupting the signal—boswellia helps prevent the *formation* of leukotrienes in the first place. In a way, this mirrors the kind of approach we should have to inflammation for pain relief: block the inflammation—not just the pain signal.

Aside from these inflammatory markers, boswellia helps keep other cellular inflammation and damage from getting out of hand. It can actually stop tumor formation, due to its ability to inhibit 5-LOX.

## You Have to be “Choosy” About Boswellia

Choosing the right boswellia is critical. Like many botanicals, boswellia contains specific compounds that are associated with its most beneficial effects. One of boswellia's most powerful components is AKBA, (acetyl-11-keto- $\beta$ -boswellic acid). Based on research, I believe a naturally elevated level of AKBA is necessary—but within limits.

It's not unusual to find extracts that have artificially increased (spiked) levels of AKBA, or are essentially all AKBA. I don't think that's necessary, because there are other compounds in the plant that are beneficial, too.

### How to Shop for Boswellia

	AVOID	BEST FORM
Standardization	<ul style="list-style-type: none"><li>• Unstandardized</li><li>• 75-85% boswellia extract</li></ul>	<ul style="list-style-type: none"><li>• Enhanced boswellia that is 10X stronger than unstandardized</li></ul>
AKBA Content	<ul style="list-style-type: none"><li>• 1-2% AKBA</li><li>• 30-90% AKBA, which is highly, purified, and semi-synthetic. No longer a natural ratio.</li></ul>	<ul style="list-style-type: none"><li>• 10% AKBA</li></ul>
Beta-boswellic acid content	<ul style="list-style-type: none"><li>• Undisclosed beta-boswellia acid content</li></ul>	<ul style="list-style-type: none"><li>• &lt;5% beta-boswellic acid</li></ul>

However, I don't believe that an unstandardized boswellia is the answer either. First, it has very little AKBA per dose. Secondly, one of the naturally occurring compounds in boswellia—beta-boswellic acid—is actually pro-inflammatory. (Did you catch the difference in the terms? A boswellic acid versus a beta-boswellic acid.) Leaving beta-boswellic acid at its natural levels as you'd find in unstandardized extracts can mean that up to 25 percent of the botanical would have an inflammation-causing compound.

I think a balanced approach is best. The boswellia extract I recommend is standardized so that you're getting at least 10 percent AKBA and virtually no beta-boswellic acids. This way, you get the best of both worlds—a true, complete boswellia with all of the good components you need (but not at artificially high levels) with none of the potentially dangerous amounts of beta-boswellic acid.

## Boswellia and Specific Health Conditions

Boswellia is amazing for so many reasons; it truly is one of the world's best natural medicines. Next, let's look at how to use this effective botanical on its own, and also how

# Inflammation—It Affects Everything

### Asthma, Allergies, Bronchitis, COPD

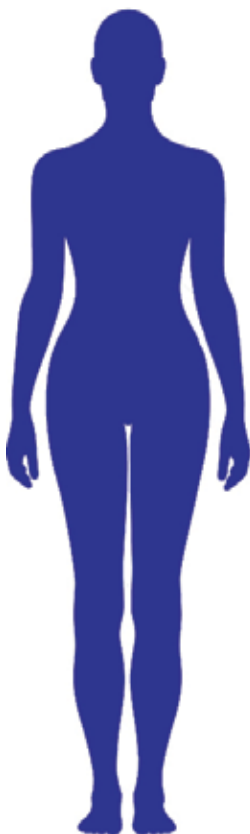
Boswellia has been shown to stop the reactive inflammation response that creates asthma and allergy symptoms, and reduce inflammation in lung tissue, providing a natural alternative for fighting bronchitis and COPD.

### Brain and Memory

Inflammation can damage brain cells and create conditions that promote Alzheimer's disease and other cognitive problems. Laboratory research has shown that boswellia can increase neuronal volume and boost learning and memory.

### Cancer and Tumor Growth

Inflammation alters the way cells divide and sets in motion the conditions for tumors to form and grow. By eliminating inflammation, you take away one of the major causes of cancer throughout the body. Boswellia has been shown to decrease fluid around brain tumors and to inhibit cancer cell formation and proliferation.



### Heart Disease

Chronic inflammation and oxidation is a frequent cause of heart diseases, including atherosclerosis. Boswellia has been shown to reduce the activity of NF- $\kappa$ B in atherosclerotic plaques.

### IBS, Irritable Bowel Disease

Inflammation in the digestive tract is responsible for the painful, unpredictable symptoms of many intestinal diseases, including autoimmune conditions. Boswellia stops inflammation triggers, reducing the incidences of the inflammatory "cascade effect" that makes these diseases so difficult to treat conventionally.

### Joint Pain

Inflammation doesn't just cause feelings of pain, it actually destroys joints. Because boswellia stops inflammation and doesn't just mask pain, it can help joints heal faster and keep damage from getting worse. Combined with curcumin, it has been shown to relieve osteoarthritis pain better than prescription drugs: 64% in herbal group versus 29% in the drug group saw a dramatic improvement.

*Inflammation doesn't just cause joint pain—it causes disease throughout the body—including cancer. Fighting inflammation effectively can make the difference between life and death. Boswellia fights inflammation across many pathways, including 5-LOX activation.*

to combine it with other botanicals for a stellar impact on a wide variety of diseases and conditions.

## **Boswellia, Tumors, and Cancer**

Many things cause tumor formation, but research has shown that age and environment can cause certain protective genes in the body to go to “sleep.” Some of these genes direct the body to suppress tumors (cancer). That is why cancer risk increases with age—some of the body’s defense mechanisms are inactive.

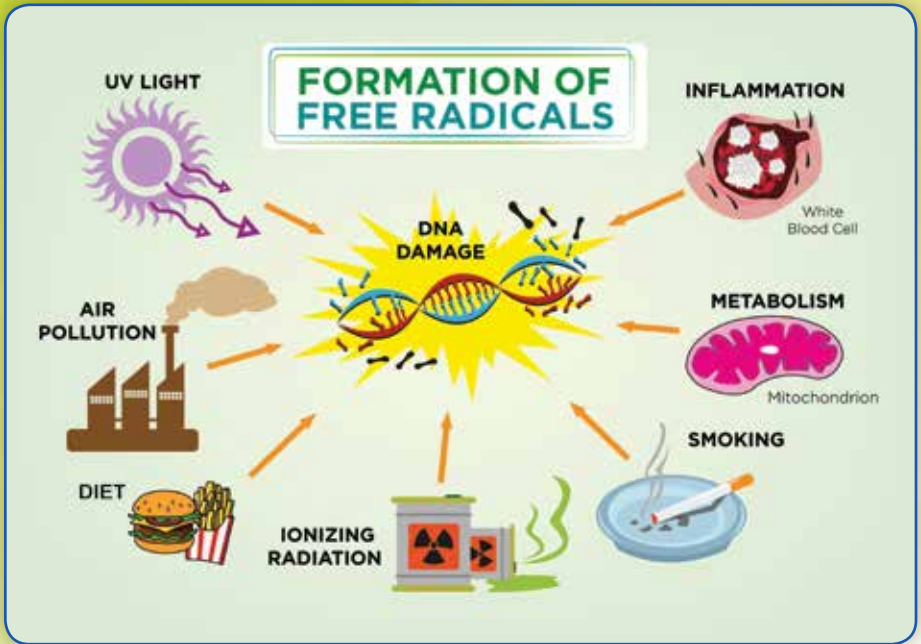
In a laboratory study, a group of researchers from Baylor University showed the ability of high-AKBA (acetyl-11-keto- $\beta$ -boswellic acid) boswellia extract to inhibit the growth of tumors in colorectal cells. It does this through a process called DNA methylation, which “wakes up” the sleeping genes that suppress tumor growth. Overall, the high-AKBA boswellic extract stopped the spread of cancer cells, lowered their chances of mutating and spreading, and reduced the survival of the mutated cells that create tumors. But beyond that, the boswellia extract actually reactivates those “sleeping” tumor-suppressing genes—essentially “waking them up”—which can put the body on a path toward healing itself.

Another Egyptian cell study found that boswellia was comparable to doxorubicin and 5-fluoroucil—two chemotherapy drugs for stopping colon and liver cancer cells. Other work has shown that AKBA from boswellia was a primary compound that inhibited the growth of leukemia cells and prostate cancer cells by suppressing the ability of cancer cells to form blood vessels.

Aside from this, boswellia has been shown to reduce fluid and swelling (edema) around brain tumors. After radiation treatment, 60 percent of patients receiving a boswellia extract saw a 75 percent reduction of fluid buildup as well. In fact, in Europe, boswellia is considered a drug to reduce peritumoral (around the tumor) edema. It is crucial to reduce this form of edema because left unchecked, it can cause severe pain, fever, seizures, and even brain damage and death.

The fact that this botanical works so well with the body to help it stop tumors and stop the conditions that make the body ripe for cancer is wonderful news. Even though much more research is needed, it provides great hope that a natural answer is just on the horizon.

## What Causes Cancer?



**Inflammation:** *Inflammation, which we usually associate with pain, affects every system in the body and is one of the major causes of all disease. In the case of cancer, it sets in motion specific inflammatory markers that can alter the way cells divide, and sets in motion the conditions for tumors to form and grow.*

**Oxidation:** *Free radical damage to cells—especially over time. Because chronic oxidative stress causes the molecular structures in the body to be constantly unstable, there is more chance for faulty DNA replication.*

**Genetic Disposition:** *While cancer isn't necessarily inherited, you may have genetic polymorphisms that are just affected enough to make you prone to having off-kilter DNA replication and tumor development.*

**Lifestyle Factors:** *Environmental or workplace pollution, and various lifestyle factors, including smoking, can build up toxins in your body or cause inflammation and oxidation and affect cellular development.*



## Frankincense Oil—Cancer Fighter and More

While the terms “boswellia” and “frankincense” are often interchanged, for the purposes of this booklet, we’ll consider the essential oil from boswellia trees to be “frankincense.” Frankincense oil is the subject of intensive study for tumor prevention. Interestingly, while frankincense is typically considered a Middle Eastern botanical (and is associated as one of the gifts from the Magi to the infant Christ child), it was also known—through trade—in traditional Chinese and Korean medicine. In fact, both countries continue to explore the uses of frankincense today, along with many other nations that are examining the ways frankincense works to stop cancer growth.

As it turns out, frankincense seems to have a variety of ways to interfere with tumors. One laboratory study found that frankincense oil works along an oxidative pathway to inhibit tumor growth in bladder cancer cells (and only affected the cancer without damaging normal, healthy cells). This seems counterintuitive because we tend to think that all oxidative stress is always bad, all the time. However, that’s not entirely true—at least where cancer cells are concerned. A tumor cell wants to protect itself against oxidative stress like any other healthy cell. Frankincense interferes with the ability of tumor cells to effectively protect themselves against oxidative stress and cell death.

Other work shows that frankincense oil can stop the progression of breast cancer cells. In this case, the actions seem to be slightly different. Frankincense oil suppresses the formation of the network of breast cancer cells to the point where the researchers consider that the oil “may be effective for advanced breast cancer.” Here, as in the case of the bladder cancer research, the frankincense oil only affected the cancerous cells and did no harm to healthy cell structures.

Similar results have been the seed for pancreatic cancer cell studies. I think this research is exciting because it shows a lot of consistency in the actions of frankincense—it harms only cancer cells while leaving normal cells untouched.

Frankincense has a long history of being cherished through the millennia for its healing power. I believe that frankincense oil, combined with boswellia extract, can help you strengthen your cells and stop the processes that can lead to tumor growth.

Aside from fighting cancer, compounds from frankincense have been researched for liver and brain cell protection and anti-inflammatory abilities as a potential treatment for ulcerative colitis.



## Boswellia, Curcumin and Arthritis



If you have osteoarthritis, you are not alone. It is the most common of all joint diseases, accounting for about half of the arthritis diagnoses in the United States and affecting approximately 1 in 5 Americans.

But as powerful (and frightening) as these numbers sound, they can only hint at the overall impact of osteoarthritis, which keeps people from working, enjoying vacations, and just getting around for everyday activities. Osteoarthritis sends people to doctor's offices and pain clinics and makes potentially dangerous and damaging prescription drugs seem like an attractive option.

### What is Osteoarthritis?

Because they sound similar, it's understandable that people may confuse osteoporosis, a degeneration of bone tissue, with osteoarthritis, a degeneration of the joints. Osteoarthritis is a form of joint disease that develops when cartilage deteriorates. Over time, the space between bones narrows and the surfaces of the bones change shape, leading eventually to friction and joint damage. Osteoarthritis often affects more than one joint,

and while it can affect any joint in the body, some joints are affected much more often than others. For example, osteoarthritis is quite common in the hip, knee, lower back, neck, and certain finger joints, but it is rare in the elbow.

Because the risk of developing osteoarthritis increases with age, this form of arthritis is expected to become even more prevalent as the population of the United States grows older.

### Who Gets Osteoarthritis?

About equal numbers of men and women have osteoarthritis, but it tends to affect them differently. Men typically develop symptoms before age 45 while women usually don't have symptoms until after age 55.

Women more often have osteoarthritis in the hands and knees. For example, women are ten times more likely to develop Heberden's nodes, a type of osteoarthritis in which hard,

bony growths form on the joint nearest the fingertip. In comparison, men are more likely to have it in the hips, knees and spine.

Drugs are not the best answer for osteoarthritis. All of them come with serious side effects, including nausea, liver damage, and stomach bleeding—to name a few. Not only that, but while they may eliminate pain, they do nothing for the deterioration of the joints.

## **Boswellia, Curcumin, and Osteoarthritis**

Fortunately, for anyone dealing with the pain and discomfort of arthritis, boswellia, combined with curcumin from turmeric, offers relief.

A published human study compared the potency of a clinically tested curcumin (blended with turmeric essential oil) plus the boswellia extract I recommend in this booklet. They compared this combination to a generic celecoxib (known under the brand name Celebrex®). Although the curcumin they used is highly regarded and extremely effective, they paired it with this boswellia specifically because of its well-established ability to inhibit 5-LOX inflammation, which flares up in damaged joints.

In this study, one group received a 100mg of celecoxib, twice daily, while the second group received a 500 mg blend of the boswellia and curcumin combination twice daily. For pain relief, 64 percent of those taking the natural ingredients versus 29 percent in the drug group improved to such a high degree that they were able to move from having “moderate to severe arthritis” to “mild to moderate arthritis.”

Aside from osteoarthritis, boswellia could be very useful for relieving rheumatoid arthritis. That’s because, of the two, rheumatoid arthritis typically presents with a greater levels of 5-LOX inflammation. Plus, there is published research regarding curcumin and rheumatoid arthritis, so a combination of boswellia and curcumin in those cases could be quite helpful as well.

In other research, a new cancer study suggests that boswellia can actually bolster curcumin’s ability to fight tumor growth, in part, because they both work along so many complementary pathways in the body and reinforce each other’s strengths. The best form of curcumin is blended with turmeric essential oil, a source of turmerones, for enhanced absorption and blood retention.

## Boswellia—Respiratory and Breathing

Many of us take our breathing for granted, without ever a thought about how fortunate we are. But for those with asthma, seasonal allergies, sinusitis, chronic obstructive pulmonary disease (COPD), and other respiratory concerns, just taking a breath can be a challenge. However, a combination of boswellia and powerful essential oils can help you overcome the symptoms of all kinds of respiratory conditions and let you breathe easy again.

### ASTHMA

- Balances 5-LOX, reducing leukotriene activity and inflammation
- Clinically tested results—70 percent saw improvement

### ALLERGIES

- Inhibits mast cells that trigger histamine
- Helps move mucus out of the body and clear the lungs and bronchial airways

### COPD

- Inhibits HLE, alleviating the “shortness of breath” feeling
- Reduces spasmodic coughing and discomfort



## RESPIRATORY CONDITIONS IN AMERICA

If you deal with respiratory conditions – chronic or seasonal – you are not alone.

### ASTHMA

**18.7 million** adults,  
**6.8 million** children

*(Source: Centers for Disease  
Control and Prevention)*

### ALLERGIES

**50 million** children  
and adults

*(Source: American College of  
Allergy, Asthma, & Immunology)*

### COPD

**6.8 million** adults

*(Source: Centers for Disease  
Control and Prevention)*

## Boswellia Works With You, Not Against You

Whether your concern is asthma, allergies, COPD, or just seasonal respiratory colds, the right boswellia extract can get you breathing easily again. Boswellia opens airways, reduces bronchial and sinus swelling, and helps relieve the worst of allergy symptoms. As I've mentioned earlier in this booklet, boswellia is a specific inhibitor of the 5-LOX enzyme, an inflammatory trigger almost no other natural medicine can touch. This makes boswellia extremely effective for treating respiratory issues, many of which are associated with excessive 5-LOX activity.

A glance at the research for these conditions shows just how valuable this botanical treasure really is.



### Asthma

Asthma is disturbingly prevalent. The Centers for Disease Control (CDC) states that the number of American adults who have asthma is around 18 million, and the number of children is about 7 million. And unfortunately, the numbers aren't dropping. In fact, asthma among African-American children almost *doubled* between 2001 and 2009.

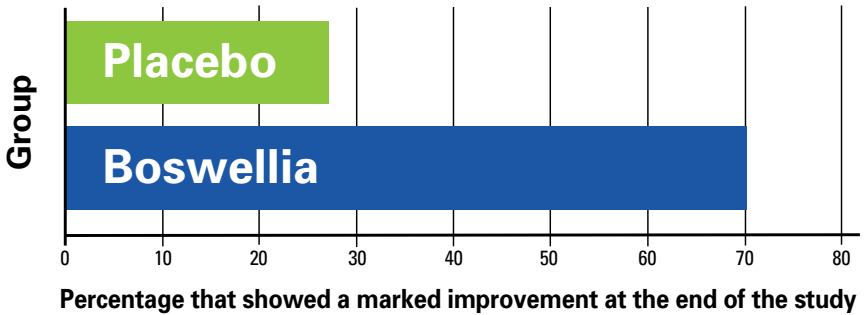
There are multiple causes of asthma, and they often work together in ways that aren't completely understood. It can be triggered by a number of things. Pollen and allergies, dust, cold air, nervousness or tension, exercise, or pollution. Some individuals just seem to be more prone to asthma than others, so genetics may play a part in this, too.

During an asthma attack, as the bronchial airways narrow and tighten, the inflammation produces mucous, adding to the "out of breath" feeling, and in severe cases, inducing panic. These attacks can be very frightening to asthma sufferers, and the anxiety over a current or next occurrence can make even mild symptoms worse.

There are certainly conventional medications to alleviate symptoms, but they can also bring about a number of side-effects, including agitation, aggression, or depression. While I am not telling you to throw away your inhaler and take boswellia instead, the good news is that clinical studies using boswellia to treat asthma have been positive.

In a double-blind, placebo-controlled, 6-week clinical study, boswellia was tested in 40 individuals with asthma, ranging from 18 to 75 years old and a mix of 23 men and 17 women. At the end of the study, 70 percent showed marked improvement!

## Boswellia Extract and Improvement of Asthma



*In a double-blind, placebo-controlled study, 70% of those in the boswellia group showed notable improvement of asthma symptoms, vs. only 27% of those in the placebo group. Boswellia reduced asthma attacks and other physical markers.*

In another clinical study showing similar results, boswellia was one of three botanicals in a combination. In this placebo-controlled study, 63 patients were divided into two groups; one received the herbal combination (boswellia, licorice root, and turmeric root), the other a placebo. At the end of the 4 week study, the herbal group showed a statistically significant drop in leukotriene levels and other inflammatory markers compared to the placebo group.

Boswellia is an especially potent therapeutic for asthma. That's because during an asthma attack, leukotrienes are the primary cause of bronchial constriction. These inflammatory leukotrienes, known as the "4-series leukotrienes" (LTB<sub>4</sub>, LTC<sub>4</sub>, LTD<sub>4</sub>, and LTE<sub>4</sub>) are activated, in part, by 5-LOX. We already know that boswellia inhibits 5-LOX. But it also stops these leukotrienes at the same time. So directly it stops the conditions that cause inflammatory responses *and* the leukocytes of that response from surging toward areas of inflammation—helpful for many conditions, but especially for asthma, allergies, sinusitis, and emphysema.



## Allergies

It's estimated that about 50 million adults and children suffer from nasal allergies. Individuals who suffer from allergic rhinitis, better known as "hay fever", know that the physical discomforts of seasonal flare-ups are a real problem. In any given year, over 17 million adults and almost 9 million American children are diagnosed with this condition. And, even though many—

including those who suffer the most—dismiss the sneezing, runny nose, and discomfort as "just allergies", Americans overwhelmingly continue to take over-the-counter and prescription drugs each year to overcome these same symptoms.

caused by allergies usually bring unwelcome side effects, including jitteriness, fatigue, mental fog, and irritability. By the end of the allergy season, many find these synthetic “cures” may be worse than the allergy symptoms.

In an allergic response, the body produces compounds that attach themselves to immune system cells called mast cells. When this happens, the mast cells release large amounts of histamine. The histamine reaction creates swelling and induces more inflammation, redness, and itching.

Scientific studies have shown that boswellia can inhibit the action of mast cells and reduce histamine levels. Because boswellia also keeps inflammation at bay, it is perfect for reducing the sinus pressure and swelling that often make allergy flare-ups so miserable.



## Sinusitis

The sinus cavities contain four major pairs of hollow, air-filled sacs. When inflamed and filled with mucus, sinusitis can be truly debilitating, causing headaches, dizziness, and a feeling of intense pressure through the face. Unfortunately, it is a common condition, and affects about 30 million Americans.

For many people, the conventional choices for sinus relief are not attractive. Like allergy medicines, many synthetic drugs for sinuses either cause jitteriness or grogginess. But here again, boswellia’s anti-inflammatory ability can make a notable difference for you *without* the side effects.

Many of the same conditions that cause asthma reactions cause allergies and sinusitis as well. For people with chronic sinusitis, boswellia presents a real chance to break out of a cycle of infections by reducing the irritation and inflammation that can bring about allergy and sinus reactions in the first place.



## COPD

If you struggle with COPD (chronic obstructive pulmonary disease), boswellia offers hope, too. Emphysema, chronic bronchitis, and other troublesome respiratory symptoms are triggered, in part, by human leukocyte elastase (abbreviated “HLE”). Not only does someone with these diseases feel as though they can’t get a “full breath” of air, they may notice more mucus adding to the “drowning” feeling that these conditions bring on.

Fortunately, research shows that boswellia also specifically inhibits HLE. By reducing the influence and activity of HLE, boswellia stops bronchial inflammation, opening bronchial airways and helping them stay open. It may also reduce the damage to bronchi that occurs over time due to these conditions and their causes.

## Boswellia and Additional Essential Oils for Easy Breathing

**Thyme** (*Thymus saturoioides*) provides natural compounds—thymol and carvacrol—that help you deal with the symptoms that make bronchial symptoms so difficult to live with. They stop the spasmodic coughing and “tickling” in the throat, relax airways in the lungs, and strengthen the activity of the cilia to help loosen phlegm and keep mucus moving, so you don’t feel clogged up.



For respiratory conditions, I recommend a supercritical CO<sub>2</sub> extract that concentrates the power of the essential oil, in a very clean way—without any worries about contamination with heavy metals or chemical contaminants that might otherwise trigger asthmatic or other bronchial inflammation.

**Ravintsara** (*Cinnamomum camphora*) has tremendous benefits. Ravintsara is used in traditional medicine in Asia, but was also introduced to Madagascar over 150 years ago. While the Asian varieties of this tree are used to provide camphor oil, the trees on Madagascar have naturalized over time, and the difference in soil, growing conditions, and climate have given their oils a different chemical profile. In this case, the ravintsara oil contains high levels of 1,8 cineole (giving it a scent much like eucalyptus) and has been shown to have strong antibacterial potential.



Other research has found that *Cinnamomum camphora* extracts effectively reduce inflammation and oxidative stress. Considering the high levels of inflammation involved in any kind of respiratory disease or condition, I believe that ravintsara is a definite must. Here again, I recommend a supercritical CO<sub>2</sub> extract.

**Myrtle** (*Myrtus communis*) is another botanical used in traditional medicine throughout the Mediterranean. The leaves from this evergreen shrub produce a strong essential oil that is a powerful antioxidant. The oil has been used as an antiseptic and antibacterial agent and is excellent for treating bronchial and lung infections.



As a commercially available product, myrtle essential oil has been well-studied and sold in Europe for more than 75 years. And, just like thyme, myrtle stimulates the cilia—the tiny, fluttering projections in the sinus cavities and respiratory system—so you can experience more effective mucous clearing of the lungs and sinuses.



## Breathe Easy and Live Better

At some point soon, boswellia may become the primary natural medicine for the growing number of people suffering from respiratory conditions. It will be fascinating to see if boswellia, so highly revered as a medicine throughout our past, can help us breathe more easily in the present, and well into the future.

The right boswellia extract combined with additional essential oils can inhibit the triggers that cause respiratory problems in the first place, relieve symptoms if they should occur, and do this without the side effects of common synthetic drugs. You will be surprised at how good life can be when you can finally breathe easy again—and these botanicals can make it happen.

## Breathe Clearly

Whether you have serious respiratory concerns, or just occasional problems, there are some things to keep in mind:

- **Keep your indoor air clean.** You may consider investing in an air purifier. These little wonders can really help remove dust and pollen from your home. Also, make sure you wipe off your pets when they come inside, and take off your shoes so you don't track in more allergens.
- **Stay away from smoke.** Whether that means secondhand tobacco smoke, grills or campfires, keeping a distance from lung irritants is a must if you deal with asthma, allergies, or other bronchial conditions.
- **On high-pollen days, stay inside when possible.** It can be tough to avoid the great weather that usually accompanies allergy season, but on high-pollen count days, it's probably the best course of action.
- **Stay away from inflammation-causing foods.** It might seem odd to mention foods in relation with respiratory health, but the fact is, inflammatory foods cause inflammation throughout the body. You may notice sinus or bronchial problems after eating processed, fried, or sugary meals. That's because the conditions they cause are literally affecting you where you breathe.

## Boswellia—Digestion Issues and Diseases

Digestive diseases are common, disruptive, and frustratingly difficult for conventional medicine to treat effectively. In addition to common digestive ailments brought on by viruses, stress, or diet, each day millions of Americans suffer from irritable bowel syndrome (IBS), Crohn's disease, or ulcerative colitis. These are serious concerns that need to be addressed, but conventional medications often bring a world of unwanted side effects, too.

The specialized boswellia that I recommend, combined with additional essential oils will stop the painful inflammation, bacterial overgrowth, bloating, cramps, and other "unpredictable events" of IBS and other gastric concerns. Together, they:

- **Inhibit bloating, gas, and pain**
- **Relieve diarrhea and urgency**
- **Stop bacterial overgrowth**
- **Promote regularity**
- **Stop intestinal damage**
- **Equal effectiveness of drugs without side effects**

## Causes, Effects, and Cures of Digestive Diseases

### CAUSES

- **Stress**
- **Caffeine**
- **Alcohol**
- **Food Intolerances**  
(gluten, sugars, dairy)
- **Harmful Bacteria**

### EFFECTS

- **Gas**
- **Bloating**
- **Gastric Pain**
- **Unpredictable Bowel Movements**  
(urgency, diarrhea, or constipation)

## Boswellia—Inflammation and Digestion

Microscopic inflammation through the small bowel and colon may be one of the physical causes—and certainly one of the effects— of IBS. The already inflamed tissue causes the body to release inflammatory mediators that affect the enteric nerves, and change the way the digestive system reacts to what would otherwise be normal operating procedure. In other words, inflammation in the gut sends a signal to the brain telling it that something is wrong. The digestive system reacts (or overreacts) by shifting into high gear, in the case of diarrhea—or slowing peristalsis dramatically, in the case of constipation.

As digestive disorders go, IBS is one of the most frustrating. Unfortunately, it is also one of the most commonly diagnosed. Its symptoms range from cramping, bloating and general digestive discomfort to diarrhea, constipation or both. Flare-ups are unpredictable, so travel plans—and sometimes daily life—can be difficult at best. In the worst cases, individuals need to know at all times where the nearest restroom is located.

Aside from IBS, there is also inflammatory bowel disease (IBD), which includes colitis and Crohn’s disease. Crohn’s disease can cause fever, pain, bloody diarrhea, and loss of appetite.

Ulcerative colitis, another inflammatory bowel disorder, is inflammation of the colon that destroys patches of mucosal lining. Aside from pain, symptoms also include bloody diarrhea and stools that contain mucus or pus.

These conditions hinder the ability of the digestive system to absorb nutrients, which can cause malnutrition, anemia, and unhealthy weight loss. So far, drugs and surgery have been the standard treatment, particularly for colitis. Unfortunately, this approach brings with it many major side effects. The better solution, and the one I recommend, is to use strong botanicals that get to the heart of the problem.

## Boswellia and Clinical Studies

Because of boswellia’s unique ability to stop 5-LOX inflammation and its connection to digestive diseases, it has been clinically studied in cases of Crohn’s disease and colitis.

In a German study, participants with Crohn’s disease were treated with either boswellia or the drug mesalazine (a drug commonly used to treat Crohn’s, ulcerative colitis, and IBS). Boswellia performed as well as the drug, but without the dangerous side effects.

In a clinical study of individuals with colitis, patients were given boswellia extract or the prescription drug sulfasalazine. The results for boswellia were very positive. Of the 20 patients treated with boswellia, 18 showed an improvement in one or more of the diagnostic parameters, including stool properties and mineral excretion, and 14 of the 20 saw a remission of symptoms across the board. The authors concluded that boswellia could be an effective treatment because of this—and noted its lack of side effects.

## Boswellia and Other Essential Oils for Better Digestion

As I've mentioned, in addition to boswellia, there are other essential oils that work together to safely and effectively stop the symptoms of a variety of digestive conditions.

### Coriander

Provides protection from intestinal pathogens, (including *E. coli*) and ends bacterial overgrowth that leads to IBS symptoms. A British study compared various essential oils and found that coriander, peppermint, and other botanicals have an advantage over conventional antibiotics in stopping bacteria. Because plants contain a variety of beneficial compounds, with minor variations from plant to plant (a plant is never exactly the same), bacteria have a harder time developing resistance to them versus a single-compound prescription antibiotic.



### Fennel

An Indian review mentions that fennel, among other traditionally-recommended botanicals, has a high flavonoid content that protects against peptic ulcer (which includes gastric and duodenal ulcers), and keeps the mucosal lining of the stomach and small intestines safe from damage. Flavonoids in general have anti-spasmodic and anti-diarrheal effects, and fennel may also stop inflammatory-related oxidative stress.



A Brazilian clinical trial found that as part of a complex of botanicals and essential oils, fennel helped prevent constipation, so it appears to have a normalizing influence on digestion.

### Caraway Seed

In studies, caraway seed essential oil is often blended with peppermint. Like peppermint, caraway can help relax the smooth muscle cells in the intestines, and relieve bloating, gas, or other symptoms of dyspepsia. In fact, it appears to inhibit the digestive system's initial reaction to gastric irritants, so it is perfect for anyone with chronic conditions who occasionally (or accidentally) eat triggering foods.



Caraway seed essential oil (in conjunction with peppermint oil) also stimulates gall

bladder activity, and normalizes digestive transit time, helping the foods we eat travel through the intestines more predictably. Aside from digestive support, research shows that oils from caraway seed may help stop the development of colon cancer.

## **Peppermint**

Peppermint has been a favorite essential oil for digestive relief for generations. The compounds in this amazing plant relieve gas, pain, bloating, discomfort, and relax the smooth muscles in the intestines.

Not only is peppermint long recognized for everyday gastric relief (think about after dinner mints, or the tradition of mint served with lamb for easier post-meal digestion) but it is also being researched as a natural bacteria fighter.

The same British study that I mentioned earlier regarding coriander and antibacterial power also found that peppermint has a strong ability to do the same. They cite a number of examples and conclude that even on its own, peppermint essential oil would be an excellent candidate to treat IBS, because it actually kills the bacteria responsible for SIBO, rather than just slowing it down.



### ***What You Need To Do:***

- 1. Stop Inflammation:** As a natural anti-inflammatory, boswellia reduces the inflammation in the small bowel that causes intestinal flare ups.
- 2. Relieve Symptoms:** Because inflammation and harmful bacterial overgrowth are behind many of the symptoms of digestive disorders, getting them under control will eliminate painful gas and bloating. Boswellia, combined with essential oils from caraway seed, fennel, and peppermint will help.
- 3. Protect Healthy Gut Bacteria:** Bad bacteria can overwhelm our natural beneficial probiotics. Coriander and peppermint, superior alternatives to antibiotics, help preserve healthy gut flora and target harmful bacterial overgrowth that leads to inflammation, intestinal pain, and other serious symptoms.

## Make Life Predictable Again

I also believe that changing your diet is critical to treating digestive diseases. Avoid wheat (and other grains), refined sugar, and dairy products from cows, though many people with inflammatory bowel issues do well with goat's milk. Any one of these, or a combination of them, can make IBS and other digestive disruptions more likely. To learn more, I strongly recommend reading *Breaking the Vicious Cycle*, by Elaine Gottschall and *Wheat Belly*, by William Davis, M.D.

## You *Can* Have a Regular Life!

**Although adjusting the foods you eat can be a challenge, making that commitment, along with using boswellia extract and the other strong essential oils I've discussed here, can get your digestion back on track again. If you have IBS, Crohn's, colitis, or other digestive disorders, these tips can help.**



- **First**, consider keeping a food journal to note each instance of symptoms. You're likely to see some patterns in food or behavior that add up to digestive discomfort and stress.



- **Second**, avoid caffeine and alcohol. Sodas, coffee and tea are stimulants, and in sensitive individuals can make your emotions feel "revved up," which begins the spiral of emotional reactions that can trigger to IBS symptoms. Alcohol, considered to have a calming influence, can actually cause inflammation in the digestive tract.



(and have to avoid wheat, rye, barley, and oats) and symptoms of IBS.

- **Third**, avoid wheat (and other grains), refined sugar, and commercial dairy products from cows. Any one of these, or a combination of them, can cause physical reactions that make IBS and other digestive disruptions more likely. There is some relationship between people with Celiac disease, who cannot digest gluten,



productively. Not only will it lessen symptoms, but you'll be able to live a fuller, more vibrant life.

- **And last**—but certainly not least—try to find effective ways of dealing with stress. If you can, get regular exercise. Even a walk around the block at lunchtime or during a break can make you feel much more grounded. If anxiety seems insurmountable, please consider discussing it with a professional who can help you work through tough situations more

## The Right Boswellia Can Save Your Life

Although boswellia has been part of traditional medicine for thousands of years, I think that we're just beginning to fully appreciate this amazing botanical. Its ability to stop respiratory diseases, digestive disorders, and even stop or prevent cancer are truly miraculous. Make sure you look for boswellia that is standardized for at least 10 percent AKBA (acetyl-11-keto- $\beta$ -boswellic acid) for the strongest 5-LOX inhibiting ability and complete potential you need.

I urge anyone—whether you have a specific condition to treat, or simply want to live your best—to begin letting the gift of boswellia work its wonders in your life.

## Look for the Boswellia Formulas I Recommend

Boswellia is a powerful natural medicine on its own, or combined with essential oils. I've listed the formulas here that will work best for you depending on your conditions and concerns.

Boswellia 500 mg  
(*Boswellia serrata*) Gum Resin Extract standardized to contain  $\geq 70\%$  Total Organic and Boswellic Acids with AKBA  $\geq 10\%$ , with less than 5% beta-boswellic acids

Proprietary Complex 400 mg  
Boswellia (*Boswellia serrata*) Gum Resin Extract standardized to contain  $\geq 70\%$  Total Organic and Boswellic Acids with AKBA  $\geq 10\%$ , with  $< 5\%$  beta-boswellic acids, Coriander (*Coriandrum sativum*) Fruit Oil CO<sub>2</sub> Extract, Fennel (*Foeniculum vulgare*) Seed Oil CO<sub>2</sub> Extract, Caraway (*Carum carvi*) Seed Oil CO<sub>2</sub> Extract, Peppermint (*Mentha piperita*) Leaf Oil CO<sub>2</sub> Extract

Proprietary Complex 375 mg  
Boswellia (*Boswellia serrata*) Gum Resin Extract standardized to contain  $\geq 70\%$  Total Organic and Boswellic Acids with AKBA  $\geq 10\%$ , with  $< 5\%$  beta-boswellic acids, Ravintsara (*Cinnamomum camphora*) Leaf Oil Extract, Thyme (*Thymus satureioides*) Aerial Oil Extract, Myrtle (*Myrtus communis*) Leaf Oil Extract

Proprietary Complex 300 mg  
Boswellia (*Boswellia serrata*) Gum Resin Extract standardized to contain  $\geq 70\%$  Total Organic and Boswellic Acids with AKBA  $\geq 10\%$ , with  $< 5\%$  beta-boswellic acids, Frankincense (*Boswellia serrata*) Oil CO<sub>2</sub> (Resin) Extract



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