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D-limonene: D-limonene is a clinically tested component of the citrus oil in oranges, grapefruits, lemons, and limes. Citrus fruits have a reputation for causing heartburn, but d-limonene has been shown to stop it. While researchers haven't pinpointed its exact mechanism of action, d-limonene has been shown to effectively reduce or eliminate GERD symptoms. In one study, 19 adults with mild to moderate symptoms that had intermittently lasted for at least five years were instructed to discontinue their overthe-counter or prescription medications and take d-limonene instead. The first day, they reported a 5 or higher pain level, with 1 being pain-free and 10 equaling severe pain. By day

two, 32 percent of the participants experienced symptom relief bringing their level to 1 or 2. After 14 days, 89 percent of the participants were symptom-free. Similar results were found in another double-blind, placebo-controlled study, with 86 percent of participants reporting complete relief within two weeks.

In addition to its ability to relieve the symptoms of acid reflux, d-limonene also supports peristalsis (involuntary muscle contractions in the intestines that move food through the digestive system) without shutting down the production of stomach acid. Taken together, these actions make this natural citrus supplement an excellent tool for those with GERD, especially when it's combined with sea buckthorn.

## DGL:

When heartburn strikes, your first priority is to calm the fire fast! Deglycyrrhizinated licorice, or DGL, is a licorice extract with strong antioxidant and anti-inflammatory properties that has been clinically shown to increase the production of mucus. This, in turn, can ease discomfort and protect the stomach and esophagus from future instances of acid reflux. It works so well that a recent clinical trial found that taking DGL proved more effective than commonly used antacids.

In another study, DGL was found to provide overall relief from indigestion. During this randomized, double-blind, placebocontrolled study, 50 people with dyspepsia received either an encapsulated form of DGL twice daily or a placebo. After 15 days

and again at 30 days, participants taking the DGL capsules showed significant improvement in their symptoms, including heartburn, regurgitation, nausea, bloating, and the feeling of fullness. DGL is also a powerful antimicrobial shown to inhibit *Helicobacter pylori*, the bacteria that eats away at the lining of the stomach and causes ulcers.

Most DGL supplements come in the form of strongly flavored chewables that can be off-putting to many people. For a more convenient option, look for DGL capsules standardized to contain 3.5 percent glabridin, the active compound in licorice. Each dose should also provide more than 10 percent total flavonoids.

## Boswellia:

One of the key features of GERD is inflammation. Boswellia is a powerful anti-inflammatory herb derived from the bark of the *Boswellia serrata* tree. This aromatic resin has been used for thousands of years to treat numerous inflammatory digestive issues, especially when they involve the mucosal lining of the gut. Modern scientists have uncovered specific active boswellic acids known as acetyl-11-keto- $\beta$ -boswellic acids (AKBA) that are responsible for the herb's healing properties.

The best form of boswellia is uniquely standardized to contain at least 10 percent AKBA. But check the label to ensure it doesn't contain proinflammatory beta boswellic acids (BBA). On its own, or combined with an anti-inflammatory diet, boswellia may help minimize the inflammation involved in chronic

## Melatonin:

If GERD symptoms tend to strike at night, try some melatonin. Studies suggest that just 6 mg of this sleepy-time supplement may work nearly as well as a popular proton pump inhibitor but without the side effects.

## - Sea buckthorn:

acid reflux.

Sea buckthorn supplies the body with rare omega-7 essential berry is so rich in benefits

fatty acids. This berry is so rich in benefits, it's been called a "nutrient bomb." In addition to omega-7, sea buckthorn is a rich source of flavonoids, water- and fat-soluble vitamins, plant lipids, and omega-3, 6, and 9 fatty acids. Evidence in the *World Journal of Gastroenterology* reports that the omega-7s in sea buckthorn support the mucosal lining throughout the digestive tract. Because of this, sea buckthorn is an effective aid for preventing and healing gastric ulcers.

To experience these protective benefits, search out a sea buckthorn supplement that includes both seed and pulp oil. It's also wise to look for a solvent-free, supercritical  $\mathrm{CO}_2$  extraction technology so you can be assured of a clinically tested, highly viable sea buckthorn.

