

This Combo Is Good for Your Gut and Your Blood Sugar

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STORY AT-A-GLANCE

- › Making changes to your lifestyle choices, such as adding bay leaves or ginger to your daily regimen, can have a positive effect on your health
- › Bay leaves are popular additions for marinating, cooking and pickling and also help lower fasting blood sugar in people with diabetes and lower blood pressure
- › Ginger is popular in salad dressings, drinks and foods, or steeped as a flavorful tea. It helps soothe an upset stomach, aid digestion, control blood sugar and manage obesity and metabolic syndrome
- › Ginger and bay leaves are appetizing additions to foods and tea. People taking antidiabetic medication, narcotics or sedatives should consult with their health care provider before using bay leaves daily

Evidence suggests that including bay leaves and ginger in your nutritional plan may have a positive impact on your blood sugar and gut health. According to the U.S. Centers for Disease Control and Prevention,¹ 6 in every 10 adults living in the U.S. have a chronic disease. Nearly 4 in every 10 adults have two or more chronic illnesses that may include heart disease, diabetes, chronic kidney disease or cancer.

Many of these conditions are associated with behaviors that include poor nutrition, **lack of physical activity**, exposure to smoke or excessive alcohol use. Two health conditions that contribute to chronic diseases include metabolic syndrome and poor gut health, or gut dysbiosis.

Metabolic syndrome is a group of five health conditions that are associated with other chronic problems, including cardiovascular disease, stroke, diabetes and chronic kidney disease. When a person has three or more of the five risk factors they are diagnosed with metabolic syndrome. These include:^{2,3}

- High blood glucose
- High blood pressure
- Obesity, a BMI of 30 or above or a large waist (40 inches in men; 35 in women)
- High triglycerides
- Low high-density lipoproteins (HDL) cholesterol

Your nutritional choices also have an impact on your gut health. Optimizing your gut microbiome is a pursuit that has far-reaching effects on your physical and emotional health. There is mounting scientific evidence to suggest that a large component of nutrition centers on nourishing beneficial bacteria in your gut, which may help keep harmful microbes in check.

This in turn reduces your risk of chronic disease. The list of conditions influenced by your gut microbiome includes learning disabilities, obesity,⁴ diabetes⁵ and [Parkinson's disease](#).⁶ In fact, one scientific review⁷ published in 2020 goes so far as to suggest all inflammatory diseases begin in the gut.

Prevalence of Metabolic Syndrome Is Rising

Metabolic syndrome, also called Syndrome X, has risen to epidemic proportions across the world.⁸ While the constellation of symptoms began in the Western world, the ever-growing spread of this lifestyle has created a global problem.

A combination of calorie-dense foods and a reduction in physical activity has fed the spread of metabolic syndrome that has led to a rising number with cardiovascular diseases, Type 2 diabetes and other disabilities. It's estimated the total direct and indirect cost to the economy is in the trillions.

According to the CDC,⁹ data from the National Health and Nutrition Examination Survey gathered from 1988 to 2012 demonstrated that more than 33% of all adults living in the U.S. had met the criteria for metabolic syndrome.

The prevalence of metabolic syndrome closely follows the rates of obesity,¹⁰ which have only continued to rise.¹¹ It is a safe assumption that as the rates of obesity continue to rise, so has the prevalence of metabolic syndrome.

These Ingredients May Affect Symptoms of Metabolic Syndrome

Making small lifestyle changes can help normalize weight management and reduce insulin resistance, a hallmark of Type 2 diabetes. Adding ginger and **bay leaves** in your dietary regimen are two small steps that may help support lifestyle changes. Bay leaves are popular in pickling, marinating and flavoring stews, soups and stuffing.

The leaves can be up to 2 inches long¹² and are almond-shaped. While they are added for marinating or cooking, you shouldn't eat them since biting into a bay leaf is unpleasant. The flavor of the bay leaf changes after simmering it for an hour or two and it adds a complex profile to foods.

There are a variety of plants that are called bay leaves, but it is the Indonesian bay leaf (*Syzygium polyanthum*) that has demonstrated the ability to reduce fasting blood sugar in individuals with Type 2 diabetes. In a pilot study,¹³ researchers gave 350 milligrams (mg) of an extract in capsule form once a day for 14 days to the intervention group.

They found at the end of the 14 days the fasting blood sugar in the group receiving the supplement was lower than in the control group. This supported an earlier animal study¹⁴ also using an extract of Indonesian bay leaves.

Ginger is another flavorful choice you can add to your diet that may help reduce your blood sugar and has advantages for **obesity** and metabolic syndrome. The most frequent references for ginger have been for the **treatment of nausea** without any adverse side effects.¹⁵

However, ginger has also been shown to reduce blood sugar levels in human and animal studies. In 2014, an animal study¹⁶ using obese diabetic rats demonstrated those given cinnamon and ginger “significantly reduced their body weight and body fat mass” and “decreased blood glucose and leptin and increased insulin serum levels.”

A 2015 study¹⁷ using a ginger powder supplement for 12 weeks demonstrated the people in the intervention group had lower levels of hemoglobin A1c, which is a measurement of long-term blood glucose control. In 2016, an animal study¹⁸ demonstrated ginger extract supplementation in rats with diabetes may help protect against cardiovascular complications that are commonly found with diabetes.

Bay Leaves May Help Lower High Blood Pressure

High blood pressure is another symptom of metabolic syndrome that may be affected by the addition of a bay leaf supplement. On its own, high blood pressure can also increase your risk of cardiovascular disease and stroke and may double your **risk of dying from COVID-19**.¹⁹ Bay leaves are a traditional Malay treatment for high blood pressure,²⁰ which may be associated in part with diuretic properties.²¹

Using an Indonesian bay leaf supplement, another study²² published in 2020 found that it has an influence on your vascular system. The researchers examined the effect against vascular endothelial growth using an animal model in which acute coronary syndrome was surgically induced.

The animals were then treated with bay leaf extract. When evaluated, they found there was a significant expression of vascular endothelial growth factors in the intervention group as compared to the control group. This led the researchers to conclude that the extract could have a potential effect on angiogenesis and act as an adjuvant treatment that could lead to better prognosis for reperfusion.²³

These changes have the potential to improve recovery after a cardiovascular event that triggers tissue ischemia and damage. However, the results of a second study²⁴ indicated that the extract also has an effect before cardiovascular damage and may help reduce systolic and diastolic blood pressure.

The researchers engaged 39 pregnant women and split them into an intervention group and control group. The women in the intervention group were given 80 mg of Indonesian bay leaf nanoparticles in combination with 10 mg of nifedipine for 14 days. The control group received just the nifedipine.

Nifedipine is a calcium channel blocker used to treat [high blood pressure](#) and control angina,²⁵ and is prescribed in the treatment of high blood pressure in pregnancy.²⁶ The data revealed there was a greater decrease in the systolic and diastolic blood pressure of the women in the intervention group when the medication was augmented with bay leaf nanoparticles.

Bay Leaves May Help With Intestinal Issues

According to a scientific review²⁷ the chronic inflammatory diseases that are linked to [leaky gut](#) may depend in part on the types of exposures you've had, your genetic makeup and the composition of your gut microbiome. The author mentions several inflammatory diseases that are associated with dysregulation, including metabolic and autoimmune disorders and infections.²⁸

Your gut bacteria are part of your natural immune defense, including antiviral defense as recent research has shown.²⁹ According to a report by Harvard Medical School,³⁰ researchers have for the first time identified specific populations of beneficial bacteria that help “ward off viral invaders.”

Bay leaves have traditionally been used to help those who are having intestinal problems. Olga Korapliova, a nutrition expert, believes in part this may be due to the mineral and vitamin composition of bay leaves,^{31,32,33} which includes magnesium, potassium, trace selenium, iron and vitamins A, C, B6, B12 and B9 (folate).

These may assist in soothing an upset stomach and help in eliminating toxins from the gastrointestinal tract.³⁴ It is also an Ayurvedic remedy that helps to manage indigestion. According to a report in *Medicinal Plants of South Asia Journal*,³⁵ bay leaves have traditionally been used to relieve abdominal pain, gastrointestinal problems, constipation and diarrhea.

Ginger Fights Obesity and Aids Digestion

Ginger also helps aid digestion. Studies have demonstrated that ginger can reduce systemic inflammation, body weight and blood sugar,³⁶ which helps protect against nonalcoholic fatty liver disease (NAFLD), found in up to 40% of U.S. adults.³⁷

This in part may be related to an elaborate chemical makeup that includes bioactive compounds with antioxidant, antiemetic and anti-inflammatory properties.³⁸ The compounds in ginger tend to concentrate in the gastrointestinal tract,³⁹ which may be why so many of the benefits are related to this system.

It also has an exceptional ability to break up and get rid of intestinal gas that can cause cramping, pressure and **vomiting**. Some researchers also theorize that ginger can stimulate the digestive tract and is associated with rising levels of digestive enzymes.⁴⁰

Together with elevating saliva⁴¹ and improving gastric motility,⁴² ginger helps keep food moving through the gut, so fermentation or gas buildup is less likely to occur.

How to Add Ginger and Bay Leaves

As mentioned before, bay leaves are often added to stews or in a marinade. However, you can also steep bay leaves for a flavorful tea. How long you steep the bay leaf will depend on the flavor profile you enjoy. Consider grating raw ginger to add a punch to foods, salad dressings and drinks or slicing the root and steeping a fresh hot **cup of tea**.

As you're considering adding bay leaves and ginger, remember to choose **organically grown** herbs and spices over processed products. Try to be consistent with adding these to your diet. It is regular consumption over a period of weeks that has demonstrated positive results and not intermittent use.

Bay leaves are likely safe for most people but there isn't enough information about safety for women who are pregnant or nursing.⁴³ Since the leaf cannot be digested, it may remain intact while passing through the digestive system and may pierce the digestive system if an intact leaf is swallowed.

People who are on antidiabetic medications, narcotics or sedative medications should speak with their health care provider before using bay leaf supplements or adding a bay leaf to their daily routine.⁴⁴ Bay leaves can decrease how quickly the body metabolizes narcotics and may cause sleepiness or drowsiness, especially when combined with sedative medications.

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