

Everything You Need to Know About Blending Mushrooms

THE SCIENCE BEHIND THE DIETARY
BENEFITS OF THE MIGHTY MUSHROOM

"The Blend"

You might think of mushrooms as merely a topping, a robust garnish on top of your burger or sautéed for your steak.

"The Blend" challenges the notion that these earthy shoots are only the sideshow. It presents the idea that meat and mushrooms are long-lost soulmates, equal partners on a holistic, healthy dinner plate.

Meat and mushrooms were meant to be blended. Whether it's a 70/30 blend in a chili or pot pie (where mushrooms command the flavor) or a 40/60 blend in meat-heavy tacos or sloppy Joes, it's as easy as blend, cook and serve.

Mushrooms can be incorporated regularly into your modern diet by blending them with meat or other plant-based alternatives, for an added flavor boost and health benefit.

That's "The Blend." Here's the proof.



The Research Behind The Blend

The idea of a mushroom and meat union was the beautiful food child of the Healthy Menus R&D Collaborative (HMC) and The Mushroom Council.

As an educational initiative of the Culinary Institute of America, the HMC partnered with the council to study the mighty mushroom—researching the flavor-enhancing properties and appeal of this special meat/mushroom blend.

THEY EMERGED WITH POWERFUL FINDINGS

of consumers surveyed are more likely to try plant-based alternatives¹

of the U.S. population who have tried the blend will likely have it again³

of the U.S. population would try the blend if it was available to them²

of millennials consume a meat alternative multiple times a week⁴

Not only did a large portion of consumers express interest in the mix, but almost everyone who tried The Blend wanted more!

The study found that a ground meat recipe prepared with 50% mushrooms and 50% meat can:

- Boost flavor (thanks to mushrooms' umami)
- Reduce fat, calorie and sodium intake
- Add nutrients such as vitamin D, B-vitamins, potassium and antioxidants

With this new knowledge, many eateries made some serious changes to their menus.

Harvard University, for example, partnered with The Mushroom Council to make 10 of their beef-based dishes healthier by replacing some of the meat with mushrooms. Not only did their creations, on average, reduce their meals' saturated fat by 31% and calories by 20%, but students loved them so much, the university added a chili/shroom blend to their daily menu!

With the emergence of these health benefits, many blend-ready items starting hitting produce departments in grocery stores all across the nation— making it easier than ever to adopt the power of The Blend routinely into your diet.

The Incredible Benefits of Blending

Incorporating mushrooms into your daily diet can have significant impact on both your health and meal satisfaction.

From reducing your waistline to fighting disease, explore the incredible benefits of blending the mighty mushroom into your favorite meat-based dishes and beyond:

CALORIES

You can eat all the mushrooms you like without feel guilty about the calories.

A single serving of white button, baby bella or portabella mushrooms contain only 20 calories.

It's actually the volume of food you put into your stomach that fills you up, not the number of calories.

When cooked, the volume of mushrooms increases compared with their density raw. Not only do cooked mushrooms blended with meat help you achieve that full feeling, but they also satiate you much like a bigger portion of meat would, without the added calories.

FAT & CHOLESTEROL

While meat contains various levels of fat, mushrooms can help to add savory flavor to your next meal, without the fat. That's right. Mushrooms are fat-free, meaning mixing them into your traditional meat dishes can reduce your overall fat intake.

Does that mean you should cut fat out of your diet completely? No! A small amount of fat is an essential part of a healthy and balanced diet, helping your body produce fatty acids to absorb vitamins.

Unfortunately, a lot of Americans are still consuming too many saturated fats— and blending mushrooms into your meat-based meals is one way to instantly reduce your consumption.



Mushroom Cheeseburger Bites

Stuff your bite-sizable baby bellas with delicious lean ground beef, sharp cheddar and our Classic Let's Blend® mix. This high protein snack is low-cal and super easy to whip together! A special thanks to Shannon from KISS in the Kitchen for this low-cal recipe.

WHAT ELSE CAN YOU DO TO CUT YOUR FAT INTAKE?

One type of unsaturated fat, monounsaturated, helps our hearts maintains levels of "good" cholesterol, and can be found in rich sources like olive oil. The second type, polyunsaturated fats, omega-3 and omega-6, are found in fish.

Pair your mushroom blended meat with your favorite seafood and extra virgin olive oil for a heart-healthy meal!

SODIUM & FLAVOR

We admit it, some things just taste better with salt. Fortunately, for those watching their sodium intake, mushrooms are extremely low in salt. But they sure don't taste like it!

All types of mushrooms are rich with "umami," that fifth taste that's often missed behind sweet, salty, sour and bitter.

Although there's a completely separate taste palate for salty and umami, those who eat mushrooms often describe them as a savory, brothy, rich or meaty taste on the tongue— all sensations often associated with salty foods.

Oftentimes, meals that traditionally are expected to have salty notes—like soups, for example— can be enhanced with a handful of fresh mushrooms, as opposed to a teaspoon or two of sodium.

Umami actually highlights the sweetness in your meal, lessening the bitterness and bringing out the full flavor. In fact, umami counterbalances saltiness and allows up to a 50% salt reduction, without compromising flavor, according to The Mushroom Council.

Like mushrooms, there are a number of meats that have natural umami qualities such as beef, chicken and shellfish— just asking to be blended!

How do you bring out the most richness in your next meal? The process of cooking mushrooms breaks down protein molecules and glutamic acid, making grilled and roasted mushrooms more savory than raw ones. So, get ready to cook 'em up with your favorite meat and ditch the salt shaker!



Cajun Catfish Kebabs

Get those healthy unsaturated fats and a pop of smokey flavor with these grill-seared kebabs! They're the perfect Saturday appetizer over some drinks and sunshine, without the guilt.

Other umami-rich foods include tomatoes, Parmesan cheese, soy sauce, even green tea. Try pairing your mushrooms with these flavor-enhancing partners of a full burst of deliciousness.

NUTRITIONAL VALUE

The nutrient profile of a mushroom varies depending on the type of shroom and the method of cultivation, but here's some general information across all species.

Vitamin D

We as humans produce vitamin D when the sun's rays touch our skin. Mushrooms respond to light similarly, increasing their vitamin D content when exposed to sunlight.

Unfortunately, commercially raised mushrooms are often grown in the dark and, thereby, lack vitamin D.

Here at Monterey Mushrooms, we don't use additives, supplements or chemicals to manipulate the nutrition of our mushrooms. We turn to the help of a proprietary light system that mimics sunlight.

As a result, for three of our medium-sized "High Vitamin D" mushrooms, you'll get about 5 mcg (200 IU) of vitamin D— 25% of your recommended Daily Value.

That means eating a dozen of our medium-sized "High Vitamin D" labeled mushrooms gives you all the vitamin D you need in a day (20 mcg = 800 IU = 100% DV).

Why do you need vitamin D? This powerful nutrient helps your body to absorb calcium, which is important for your bone health.

In fact, vitamin D deficiencies can increase your chances of developing ailments with age, such as type 1 diabetes or muscle and bone pain. Those with chronically low levels of the nutrient are also at higher risk of developing cancers of the breast, colon, prostate, ovaries, esophagus and lymphatic system, according to WebMD.



Blended Mushroom & Chicken Parmesan Hand Pies

This recipe contains three umami heavy foods: mushrooms, chicken and Parm. Plus, some of the herbs— like basil— add a sodium-like flavor with only a few tenths of a milligram of salt per teaspoon, according to the <u>American Spice Trade Association</u>.

And that's just the start. Women who took vitamin D supplements in one study were 40% less likely to develop multiple sclerosis compared to those not taking the daily multivitamin. Another study at Boston University found that those who absorbed the vitamin through UVA and UVB exposure naturally normalized their high blood pressure levels.

While many foods include natural levels of vitamin D—like fatty fish (tuna and salmon), cheese, egg yolks, beef (perfect for The Blend!) and fortified drinks—plants typically don't. In fact, "High Vitamin D" mushrooms are the only readily available produce item with vitamin D.

Ensure that the mushrooms you buy were grown using proper lighting for a boost of this bone-strengthening nutrient.

Selenium

Though not as popularly known as vitamin D, our body needs small amounts of selenium for a number of health reasons.

This trace mineral is an antioxidant, meaning it helps to remove free radicals that are linked to cancer, heart problems, inflammation, premature aging and more. It's also an immune system booster, fueling the antibodies that build your resistance to sickness.

In addition, the thyroid gland requires selenium to function properly and regulate your heart and digestive function. It also helps to stabilize your mood and foster continual brain development.

Adults require a minimum of 55 mcg of selenium a day, while those pregnant or breastfeeding may require more.

With about 8 mcg of selenium in three ounces (85 g) of white mushrooms, this serving provides 15% your daily value (DV). Brown mushrooms have even higher levels of selenium per serving, packing 40% DV in just three ounces.

Selenium can also be found in foods such as eggs, poultry, pork, shrimp and Brazil nuts. Mix them into your diet in addition to mushrooms to fuel your cells.



Mexican Mushroom Meatball Soup

Not only will this scrumptious soup provide a generous serving of vitamin D— thanks to its ground beef— but the diced crimini mushrooms will give you a sure-fire calcium boost.

Fiber

Though not as high as some other vegetables, <u>mushrooms</u> are still a viable source of dietary fiber. One cup of raw white mushrooms contains about two to four percent of your daily value of fiber, most of which is insoluble and can help to lower your risk for constipation.

Other types of mushrooms contain even more fiber, like chanterelles, which contain 2.1 grams of fiber per cup when raw— or enoki mushrooms at 2.3 grams per cup.

Cooked mushrooms pack an even bigger punch, containing more fiber per cup simply because they are more concentrated. Three cups of raw mushrooms, for example, becomes less than one cup when cooked. One cup of cooked white mushrooms has 3.4 grams of fiber, which can easily be eaten when served on top of steak or chicken.

Unfortunately, most adults only average about 15 grams of daily fiber, when in reality we should have between 25 to 30, according to the UCSF Health. Mushrooms are a convenient way to incorporate more fiber into your daily diet.

Some other <u>foods with high levels of fiber</u> are raspberries, artichoke, chickpeas, lentils, chia seeds, almonds and dark chocolate. Pair these nutritious foods with a serving of mushrooms to get closer to reaching your daily recommendation.



Marinated Baby Bella Mushroom & Chickpea Salad

One cup of chickpeas contains about 12.5 grams of fiber. Together with mushrooms in this refreshing recipe, your intestines will thank you for the rich dose of digestion-friendly fiber. Shout out to Aggie's Kitchen for this fiber-friendly recipe.

View Recipe

Potassium

Mushrooms often land on lists of <u>vegetables high in potassium</u> as well. A cup of white button mushrooms contains roughly 6% of your daily value, while other varieties like baby bella offer 8% and portabella 9%.

Those who lack this essential nutrient often feel fatigued, irritable, experience leg cramps or suffer from increased blood pressure.

That's because potassium plays an important role in helping your body maintain fluid and electrolyte balance. It also helps promote muscle function and protects your blood vessels from oxidative damage.

Swiss chard, spinach and other leafy greens offer a high source of potassium, as well as potatoes and various squashes— making them great foods to eat in tandem with your mushrooms.

B Vitamins

In addition to vitamin D, mushrooms also contain five of the eight essential B vitamins such as riboflavin (B2), folate (B9), thiamine (B1), pantothenic acid (B5) and niacin (B3). White and brown mushrooms see significant levels of B2, B3 and B5, especially.

That sounds great, but how do B vitamins help the body?

Not only do they help you form red blood cells, which carry oxygen and remove carbon dioxide, but these vitamins also allow your body to turn food into energy. A number of B vitamins are important for a healthy brain too.

Each individual B vitamin has its own unique benefits as well, from B2, which helps to maintain healthy skin and sharp vision, to B9, which helps your metabolism function properly. Learn more about each vitamin's individual functions.

The body isn't able to produce B vitamins on its own in quantities great enough to be beneficial, so the only way we get them is through our dietary choices.

Besides mushrooms, other foods contain these vitamins, such as brown rice, red meat, spinach, oysters, citrus fruits and avocados.

It's worth noting that some B vitamins are sensitive to heat. Leafy greens, for example, can lose their vitamin benefits if cooked at too high of a temperature, so be sure to steam them until partway between tender and crisp. If unsure, always check before cooking to ensure you are preserving these essential vitamins.



Mushroom, Apple & Walnut Stuffed Acorn Squash

One cup of acorn squash contains about 9% of your daily value of potassium, making it a great duo with mushrooms. The apples give this dinner a tartness and flavorful bite.

Mushrooms Canada is the creative mind behind this potassium-rich recipe.

Antioxidants

Any variety of mushroom contain two antioxidants that might help fight aging and bolster health, according to Penn State researchers.

These antioxidants— ergothioneine and glutathione— can help our bodies recover from oxidative stress. High levels of oxidative stress can become toxic over time, having been linked to diseases like cancer, coronary heart disease and Alzheimer's. Mushrooms are the highest dietary source of these two antioxidants taken together.

These antioxidants are heat-stable and can be found at the same levels in both raw or cooked mushrooms, so enjoy them as you please.

White button mushrooms, for example, have more antioxidant capacity than tomatoes, green peppers, pumpkins, zucchini, carrots or green beans. Paired with these antioxidant-friendly veggies, your next meal could help to reduce aging and stress.



Mushroom Manhattan Cocktail

This unique cocktail includes mushroom-infused whiskey in a traditional Manhattan. The twist of orange is inspired by our B vitamin quest— eat the whole orange with your drink for an added benefit. Garnished with marinated mushrooms, it's something worth talking about!

Environmentally-Friendly

Various studies show that blending mushrooms into your meat-based meals can reduce pollution, water usage and land waste.

Americans eat an average of three burgers a week, according to the Culinary Institute of America. That's 50 billion burgers a year, eaten by just one country.

That same study found that livestock production, including the raising of poultry, pigs and cows, contributes to 37% of our methane gas emissions. A Mushroom Sustainability study by SureHarvest found that one pound of mushrooms only requires 0.7 pounds of CO₂.

These results complement a study conducted by Harvard University, which found that by replacing beef with mushrooms in a single five-pound meatloaf recipe, the university dining hall reduced its CO₂ footprint by 44 pounds. With just one batch!

Livestock production also requires massive amount of water, with 427 gallons used to produce a single four-ounce burger! Comparatively, a pound of mushrooms requires only 1.8 gallons of water to produce, according to SureHarvest.



Blended Green Bean Casserole

This vegetable casserole contains hearty broccoli, asparagus and antioxidantheavy green beans and baby bella mushrooms for a healthy and delicious side on your dinner plate.

View Recipe

Livestock production also uses a whomping 30% of all land on earth. Meanwhile, a <u>mushroom sustainability study</u> found that millions of pounds of mushrooms can be grown annually on just a few acres of land. Every square foot of land can produce 7.1 pounds of mushrooms, as beds can be stacked vertically in growing facilities, where lots of mushrooms thrive in a small space.

All these figures demonstrate how incorporating mushrooms into your weekly meal plan by blending with meat can drastically reduce your environmental impact.



Introducing Let's Blend®

Whenever possible, we recommend choosing fresh mushrooms from your local wholesaler or grocer. There's nothing like washing the dirt off and preparing savory mushrooms straight from the farm.

However, fresh produce isn't always the best option for hectic workweeks when you don't have time to clean, chop, season mushrooms for use in your recipes.

That's why we created <u>Let's Blend</u>[®]: finely diced, pre-seasoned, ready-to-eat mushrooms. These pre-packaged mushrooms can be easily mixed in with your protein, saving time and helping you to experience the flavor you love, without the work.

Best of all, these ready-to-use mushrooms are available in three robust blends, including Classic, Italian and Mexican seasoned mushrooms.

You can find Let's Blend next to fresh mushrooms in a number of produce departments, including Kroger, Acme and more. Click the link below to see if your local grocer carries this product!

Find a Retailer Near You

Use these pre-chopped mushrooms to enhance or substitute for meat when preparing burgers, chili, meatloaf, burritos and sauces. The list goes on and on. Our website includes a full list of recipes using these diced mushroom mixes to help make dinnertime faster and tastier.

<u>Contact us</u> to speak with an expert today for help meal planning and discovering the magic of the mighty mushrooms.