

White Pepper Versus Black Pepper: Which Is Better?

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✓ Fact Checked

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STORY AT-A-GLANCE

- › Both white and black pepper are made from peppercorns of the piper nigrum plant
- › Black peppercorns are made using the unripe berries, which are then cooked and dried; white peppercorns begin similarly, but are picked fully ripe, soaked to soften and the outer skin is removed, leaving the white seed behind
- › Both white and black pepper contain similar amounts of piperine, the substance responsible for their pungency and heat, as well as many of their health benefits
- › Some recipes call for white pepper in lieu of black simply to keep a light-colored appearance in the final dish for purposes of visual appeal
- › There are subtle differences in flavor among the different colored peppercorns, with black being the most pungent and white having an earthier flavor
- › As for which is better, that's a personal choice, as both black and white pepper have great value in your diet

Pepper is the most traded spice in the world, accounting for one-fifth of all imported spices worldwide. The pepper market, worth \$4.69 billion, grew by 9% in value and 4% in quantity between 2012 and 2016, suggesting that people's palettes continue to demand pepper's warm, earthy flavor.¹

In the U.S. and throughout the world, **black pepper** is a mainstay in spice cabinets and on tabletops, but white pepper is equally appealing, if not quite as widely used, at least

in the U.S. What's the difference between the two? Color is the most obvious distinction, and some recipes call for white pepper in lieu of black simply to keep a light-colored appearance in the final dish for purposes of visual appeal.

Beyond appearance, there are several other important disparities, beginning with how they're processed. As for which is better, that's a personal choice, as both black and white pepper have great value in your diet. In my opinion, the answer to which is better is both!

White and Black Pepper Come From the Same Plant

Both white and black pepper are made from peppercorns of the piper nigrum plant, and peppercorns are actually the fruit of the plant, which grow in long clusters, similar to [grapes](#).

Black peppercorns are made using the unripe berries, which are then cooked and dried (or sometimes only dried in the sun, without cooking.² The drying process gives the peppercorns their dark appearance and wrinkled texture, along with their pungent flavor.

White peppercorns begin similarly, but are picked fully ripe, at which point they're red. They're then soaked to soften and the outer skin is removed, leaving the white seed behind. The white seed is subsequently dried,³ leaving white pepper that's popular in Chinese, Vietnamese and Thai cuisines as well as in white foods, such as cream sauces popular in French cuisine and mashed potatoes.

There are also green peppercorns, which are harvested unripe and treated with preservatives to stop the enzymes that would otherwise darken their skin. Red peppercorns are also available, which are the ripe varieties treated similarly to preserve their color.

Green and red peppercorns are sometimes pickled in brine or vinegar and may be available in gourmet markets, often mixed with white and black peppercorns for a showy presentation.⁴ As described in the journal *Medicinal & Aromatic Plants*:⁵

*"The black pepper's fruits are small (3 to 4 mm in diameter) called a drupe and the dried unripe fruits of *Piper nigrum* are known as a peppercorn. The fully mature fruits are dark red in color and approximately 5 mm in diameter. A fruit contains a single seed ... A single stem contains 20 to 30 spikes of fruits.*

The collected spikes are sun dried to separate the peppercorns from the spikes. The fresh harvested unripe green fruits may freeze-dry to make green pepper. The fresh harvested unripe green fruits may sun-dried to make black pepper. The red skin of the ripen fruits is removed and the stony seeds are sun-dried to make white pepper."

White and Black Pepper Have Different Flavors and Heat

There are subtle differences in flavor among the different color peppercorns, with black being the most pungent, such that if you use them in a grinder all together, the black peppercorns will probably overpower the rest.

Comparing black and white peppercorns, black is more pungent, while white has an earthier flavor. Further, since white peppercorns are allowed to ripen longer, some say they have a more complex flavor, which is further heightened by the soaking process.⁶

Cook's Illustrated conducted an experiment to determine if black pepper could be substituted for white pepper in recipes, with the finding that it's OK to swap them as long as only a little bit is called for. But for recipes that require larger amounts of either, their different flavor profiles may be more noticeable. According to Cook's Illustrated:⁷

"We made two pots of hot and sour soup (which traditionally calls for white pepper), using 1 teaspoon of black pepper in one batch and 1 teaspoon of white pepper in the other.

Tasters noted that the soup with black pepper was more aromatic and had more spicy heat but preferred the soup with white pepper for its floral, earthy flavor and greater complexity. However, when we tried the swap in a stir-fry that called

for a lesser amount of white pepper, tasters had a hard time distinguishing them."

White and Black Pepper Have Similar Health Benefits

Both white and black pepper contain similar amounts of piperine, the substance responsible for their pungency and heat, as well as many of their health benefits. Overall peppercorns contain about 2% to 9% of this beneficial alkaloid.⁸ Known for its anti-inflammatory properties, piperine has been shown to be beneficial for arthritis, even in small doses.⁹

It's also useful for metabolism and digestion, having been found to increase insulin sensitivity and block the formation of new fat cells in animal studies.¹⁰ It's also known to stimulate pancreatic and intestinal enzymes as well as bile acid secretion, aiding digestion.¹¹ Stir-fried white pepper has even been found to decrease the frequency of diarrhea in infants and children, especially in cases of persistent diarrhea.¹²

This is only a small sampling of piperine's (and pepper's) health-boosting potential, however, as this powerful compound has numerous proven therapeutic effects, including:

Antihypertensive	Antiplatelet
Antioxidant	Antitumor
Antiasthmatic	Analgesic
Anti-inflammatory	Antidiarrheal
Antispasmodic	Antidepressant
Immunomodulatory	Anticonvulsant

Antithyroid	Antibacterial
Antifungal	Hepatoprotective
Insecticidal	Larvicidal

In addition to stimulating the immune system, potentially fighting cancer and offering powerful antioxidant activity, piperine also increases the bioavailability of other substances, notably resveratrol and **curcumin**. In one study, the addition of piperine increased absorption of curcumin by 2,000%.¹³ Further, as noted in Medicinal & Aromatic Plants:¹⁴

"Piperine increases the absorption of many drugs and nutrients from the gastrointestinal tract by various mechanisms. It alters the membrane dynamics and increases permeability at site of absorption.

Piperine increases the serum half-lives of some substances like beta-carotene and coenzyme Q10 and decreases metabolism of many drugs by inhibiting various metabolizing enzymes ..."

This means adding white or black pepper to your meals may make it easier for your body to absorb the many nutrients they contain. Pepper itself also contains some nutrients, including manganese, vitamin K, fiber and iron.

As for its effects on blood pressure, piperine may help to dilate blood vessels¹⁵ and alleviate hypertension.¹⁶ Piperine has even been described as a potential functional food for mood and cognitive disorders, as it possesses antidepressant-like activity while enhancing cognitive function.¹⁷

Pepper Has Been Valued Since Ancient Times

Known as the "king of spices" and "black gold," pepper was considered a valuable spice and medicinal agent in ancient Chinese and Indian medicine, used for the treatment of

pain, chills, rheumatism, influenza and fevers.

"In tea form, black pepper was also credited for relieving migraine headaches, strep throat, poor digestion and even coma," researchers wrote in *Comprehensive Reviews in Food Science and Food Safety*. "It was also used for enhancing the circulation of blood, increasing the flow of saliva and stimulating appetite."¹⁸

References to pepper date back to ancient Greek and Roman texts, and the spice trade, especially pepper, was active even in 1000 B.C. During medieval times, its rarity and cost gave pepper the status of a luxury item, hence the Dutch phrase for a prohibitively expensive item, "pepper expensive."¹⁹ The McCormick Science Institute adds:²⁰

"Pepper was so precious in ancient times that it was used as money to pay taxes, tributes, dowries and rent. It was weighed like gold and used as a common medium of exchange. In A.D. 410, when Rome was captured, 3,000 pounds of pepper were demanded as ransom."

As pepper became more commonplace, its price eventually went down, making pepper the staple condiment it is today. Beyond your diet, pepper can also be used in personal care products, particularly to fight dandruff.

To make a homemade dandruff treatment, mix soaked poppy seeds with hung curd (yogurt drained of its water) and a teaspoon of white pepper and apply to your scalp. Leave on for about an hour and rinse off. You can even use pepper in essential oil form. Black pepper essential oil is useful for low energy, muscles aches, pain and bruises.

Grind Pepper Fresh for Best Results

As for whether white or black is better, you can try both and decide for yourself. However, know that both varieties will add a similarly healthy kick to your meals, so there's no reason to exclude one or the other — and every reason to use both liberally if you enjoy them.

But like many spices, both white and black pepper begin to lose some of their potency once ground. So for best results, choose whole peppercorns and grind them fresh when you need them. Dried peppercorns can stay fresh for three to four years, especially if stored in a cool, dark place away from direct sunlight or heat.²¹

In fact, the McCormick Science Institute notes that pepper has been known as the "master spice" because it keeps for years without losing its flavor or aroma.²² This isn't the case with pre-ground pepper, however, which loses its flavor quickly, within a matter of months.

Peppercorns are versatile in that you can use a pepper grinder to grind them to a course or fine texture, depending on your preference. You can also use them crushed, especially when using pepper in a coating, such as in the pepper steak recipe below.

Pepper Steak

Ingredients

- 2 tablespoons salt
- 1 teaspoon wheat-free tamari sauce
- 1 pound grass fed beef or buffalo/bison strip loin
- 2 tablespoons beef stock
- 1/4 cup peppercorns, crushed roughly
- 2 tablespoons lemon juice
- 1/4 cup butter

Procedure

1. Place peppercorns on a plate and press steak into peppercorns to cover both sides thickly. Work peppercorns into the meat using your hands.

2. Sprinkle a skillet with the salt and over medium heat, cook until salt begins to brown. Add steak to the pan and brown over high heat. Reduce to medium heat and cook until it reaches the desired degree of doneness, approximately three to four minutes per side for medium-rare. Discard drippings. Note: As much as possible, avoid charring the meat to prevent the formation of carcinogenic chemicals.
3. In a separate saucepan, combine butter, tamari, beef stock and lemon juice.
4. Serve the steak with the sauce on the side.

Sources and References

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