

# ARE YOUR TASTE BUDS SUPERIOR?

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Supertasters on the extreme end of the spectrum love or hate most foods. Photo Credit Medioimages/Photodisc/Photodisc/Getty Images

"John Lee Supertaster tastes more than we know. Everything has a flavor. Some flavors must go." Apparently, members of the rock band They Might Be Giants, who released these lyrics in 2001, might be scientists as well. Or at least science-minded.

If many foods make your "refuse to eat" list, restaurants seldom offer what you like, and a bite or two of dessert is plenty, you may be a supertaster. In the early 1990s, Linda Bartoshuk, a professor and scientist in the area of genetic variation in taste abilities,

coined the term "supertaster" after observing that certain research participants reported abnormally high levels of taste, regardless of the food consumed. In delving further, she discovered distinct physical characteristics that led to these intense taste perceptions.

"Supertasters are born with more taste buds than others and experience unusually intense sensations from taste," said Bartoshuk, director of human research at the University of Florida Center for Smell and Taste. Because they also experience more intense oral burn and oral touch sensations, Bartoshuk and her colleagues say supertasters "live in a neon world."

This means that after eating cayenne peppers, for example, a supertaster would experience more mouth pain from capsaicin, which gives cayenne its hotness, than others. Oral touch sensitivity can make the fat in food less appealing.

While roughly 25 percent of the population meet supertaster criteria, an estimated 15 percent are at the extreme end of the spectrum. Another 25 percent are nontasters, or people who lack a particular bitter-tasting gene. Most people fall into the medium, or "normal," taste category. Contrary to what the term suggests, nontasters do perceive various tastes. They simply perceive them less strongly.

Although your taste sensitivity is but one of many factors that can influence your eating habits and wellness, it can be a significant one.

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Susan Albers, psychologist

## PUT YOUR TASTE BUDS TO THE TEST

Taste buds themselves are too tiny to see without a microscope. You can see papillae, however, which are mushroom-like structures surrounding your taste buds. If you're curious about your personal taste sensitivity, materials you may already have in your home can help provide some clarity. While it doesn't compare to laboratory studies, this home test does provide a useful visual aid and can help confirm whether your tongue's "map" matches your suspected taste category.

Supplies:

Blue food coloring

Cotton swabs

Magnifying glass

Mirror

Directions:

Coat the end of a cotton swab with blue food coloring and then put the food coloring on your tongue. Standing before a mirror, hold the magnifying glass in front of your tongue. The pale pink bumps you'll see are papillae. If you have loads of them, your tongue is that of a supertaster. Fewer papillae are present in medium and nontasters.

For best results, compare your blue tongue spot to that of a friend or family member with seemingly different taste preferences or compare your tongue to images of the same experiment online.

## SUPER STRENGTHS

One significant benefit of supertaster-dom is the ability to savor foods that suit your preferences. While medium and nontasters might describe enjoyable meals as "quite good," your superior taste abilities stimulate stronger descriptions: You LOVE it. Adore it. "It's incredible!"

In some cases, this leads to a passion for all things culinary.

"People with refined taste buds make great chefs, cooks and food critics," said Susan Albers, a psychologist and author of "50 Ways to Soothe Yourself Without Food" and "Eating Mindfully." "They can tell the subtle difference between the texture and flavor of foods, so food often becomes more a hobby and an area of great interest."

Because pain receptors surround your taste buds, the more you have, the more likely you are to find the burning sensation or flavor of tobacco unpleasant or overwhelming. So it isn't surprising that smoking is less prevalent among supertasters. You may experience similar displeasure regarding alcohol and greasy and fatty foods. For these reasons, says Bartoshuk, supertasters may have a reduced risk for certain types of cancer, including cancers of the lung, head and neck, and cardiovascular disease.

Supertaster characteristics may also explain why some children's Halloween candy lasts for months while others, likely the nontasters, plow through it in days or weeks.

"Female supertasters often avoid sweet, high-fat foods, which makes them less vulnerable to cardiac problems and obesity," Albers said. "This may be because they are more sensitive to grease, fat, salt and sugar. Supertasters don't need much sweetness or fat in their meals because a little goes a long way for them."



One by-product of being a supertaster is becoming a chef. Photo Credit Erik Snyder/Digital Vision/Getty Images

## THE NOT-SO-SUPER SIDE

Not every factor accompanying plentiful taste buds is "super" from health or emotional standpoints. Supertasters are often deemed "fussy," says Bartoshuk, which makes way for frustration and, in some cases, ridicule.

You may experience anxiety before social events involving food, for fear of not offending the preparer or having few, if any, dishes you find palatable. And although personal preference varies, supertasters are known to dislike green vegetables and other highly nutritious foods. If you are among the green-veggie haters, your risk for serious diseases, like colon cancer, is heightened.

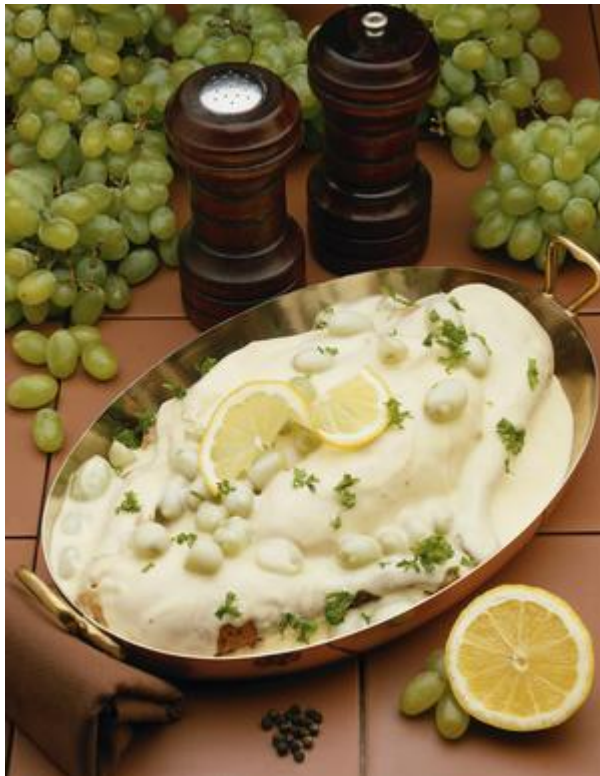
Supertasters are also more sensitive to the taste of salt. This may seem like an attribute, considering the excessive sodium intake of Americans as a whole. And it would be if this increased sensitivity resulted in consuming less salt. A study published in "Physiology & Behavior" in June 2010, however, showed otherwise.

In the study, 87 adults, a mix of supertasters and people with milder taste perception, ate samples of canned chicken broth with varying amounts of added salt, soy sauce and pretzel sticks. They were also asked to compare regular potato chips and cheddar cheese spread with low-sodium equivalents. While the supertasters reported more saltiness in the chips, broth and pretzels, they also showed stronger liking for the higher sodium concentration in the broths and cheeses. They also consumed more high-sodium food in general compared to medium and nontasters. The salt seemed important both to the supertasters' preferences and masking the bitterness of foods.

Exceeding the American Heart Association's recommended maximum of less than 1,500 mg of sodium per day increases your risk for high blood pressure and related complications. So although you may consume fewer rich, fatty, sugary foods, adding ample salt to your dishes can bring your lowered heart disease risk back up.

Male supertasters seem to be "drawn to high-fat foods, which increases their risk of obesity," Albers said. This can also compound your blood pressure and heart disease risks.

On a less serious note, as a supertaster, you'd have a tougher time winning "Fear Factor" and other shows involving "Eat this and win"-type challenges than non-tasters. "When I see a person win, I am confident that they are not a supertaster," said Bartoshuk.



Studies have shown that supertasters are more sensitive to the taste of salt. Photo Credit Hemera Technologies/Photos.com/Getty Images

## MAKING IT WORK

Gaining understanding of where you fall on the taste spectrum can help, Bartoshuk says, particularly if you fall on the extreme end of the supertaster distribution and never understood why you find certain foods offensive.

Regardless of your personal taste sensitivity, numerous steps can be taken to ensure that your nutrient needs are met.

Regarding a distaste for vegetables -- a common concern among parents of supertasters -- there's no need to fret, says Jackie Newgent, a registered dietitian, culinary nutritionist and author of "Big Green Cookbook."

"There are so many nutritious foods on the planet," she said. "There are always going to be at least a handful that kids will eat -- even supertaster kids," said Newgent. "It may just take some time -- and trial and error -- to find the most accepted veggies and preparation of them. For instance, since odor is a large part of flavor, occasionally an uncooked or cold veggie dish may be more accepted for a supertaster, such as a coleslaw instead of cooked cabbage."

To improve the palatability of bitter vegetables, like Brussels sprouts, Newgent recommends balancing the bitterness with an acid, like lemon juice or balsamic vinegar, or adding fat by cooking them in oil or serving them with dip. Doing so also reduces your need for bitterness-masking salt.

If you fall on the opposite end of the taste spectrum and face a fierce sweet tooth or are prone to overeating, which may affect nontasters in particular, honing the practice of moderation is important. Fortunately, eliminating treat foods altogether isn't necessary.

"A good guide is to aim for three or less sweets per week," Newgent said. "However, you could bump up that number if you're highly active. It's generally fine to incorporate one sugary serving, like a small cookie, into an eating plan when all other nutrient needs are met and extra calories are still needed. If you'd like a sweet treat, enjoy it after a workout or a long walk, which then actually goes directly to work helping to replace used energy from within the muscles."

Eating more fiber-rich foods, like whole grains, fruits and vegetables, can help reduce food cravings and keep you fuller longer between meals. And because emotions often play a role in overeating, gaining understanding of why you eat and learning positive ways to cope with emotions -- other than eating -- can help. Your eating behaviors, such as how much you dish on your plate, may also need adjusting.

"I'd advise anyone who needs to steer clear of portion distortion, including a nontaster overeater, to fill at least half of their plates with veggies of choice," Newgent said. "Then start the meal by eating those veggies. It'll be one of the best ways to fill up on fewer calories."

Training yourself to focus more on taste by eating mindfully -- with awareness of your food and body, in a calm atmosphere, slowly and without distraction -- provides numerous benefits.

"It won't change your ability to taste, which is written into your genetic code," Albers said. "However, focusing your attention and asking yourself, 'How does it taste?' can help you to identify subtle differences in the texture and flavors."

Mindful eating also lends itself to improved portion and weight control. You become more aware of your brain's signals that you are no longer hungry and generally feel satisfied from less food.



Parents shouldn't be too concerned if their children don't like the taste of vegetables. The planet has plenty to offer. Photo Credit Jupiterimages/Comstock/Getty Images

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<http://www.livestrong.com/article/549953-are-your-taste-buds-superior/#ixzz1bzDqS55N>