

Does this taste weird to you?



If flavor doesn't deliver, there are ways to wake up your taste buds.

by Aviva Patz



Meredith O'Brien, who lives with MS, experienced sudden taste loss. Photo by Nancy Gould

As a salt-lover, Meredith O'Brien used to eat Ritz crackers upside down to savor the salt crystals dissolving on her tongue. But one day, two years into her diagnosis of multiple sclerosis, those same crackers tasted like plain paste. The next morning, her coffee tasted burnt. Red wine at dinner tasted sour. When O'Brien, who is based in the Boston area, brought up the issue to her neurologist, he said he'd never heard of such a thing.

"Taste alterations are a primary MS symptom that has flown largely under the radar," confirms Mona Bostick, a dietitian-nutritionist in Greensboro, North Carolina, who also lives with MS. A 2016 study in the *Journal of Neurology* suggested that 15% to 32% of people with MS may experience taste deficits. A 2019 study in the *Journal of Community Dentistry and Oral Epidemiology* puts that number closer to 40%. The latter study also found that 68.4% of survey respondents complained of dry mouth, which further dampens flavor, as saliva helps taste buds do their job.

While a paler palate may not seem as troubling as MS symptoms such as bladder issues, spasticity or muscle weakness, it's more than a mere inconvenience. If left untreated, loss of taste can lead to a host of severe health problems, Bostick warns, from decreased appetite and weight loss to malnutrition and depression. What's worse: If you compensate by oversalting or oversweetening your food, that could lead to or exacerbate conditions such as hypertension and diabetes.

Fortunately, there are ways to maximize your senses of taste and smell and once again enjoy salted pretzels, sour pickles, bitter coffee, sweet cookies and your favorite linguini alfredo without putting your health at risk. Here's what you need to know.

Why loss of taste happens in MS

As with most things related to MS, experts aren't 100% sure exactly how the loss of taste happens, but it comes back to myelin, the fatty sheath that protects neurons and is damaged in MS. "Change in taste has been shown in research to be related to how the disease affects myelin-related brain lesions," explains Susan Barker, director of Rehabilitation Services at Norton Women's & Children's Hospital and the Norton Specialty Rehabilitation Center at St. Matthews in Louisville, Kentucky.



**Susan Barker, director of
Rehabilitation Services at
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Children's Hospital**

In the 2016 study mentioned earlier, MRI scans of people with MS confirmed the link between taste problems and brain lesion activity. Lead study author Richard L. Doty, PhD, director of the University of Pennsylvania Medical Center's Smell and Taste Center says: "With [loss of] taste, we found that it involves lesion volume — the size of lesions in the temporal and frontal lobes," rather than the number of lesions, as observed with other senses, such as smell.

The MRI scans corroborated reported deficits in all regions of the tongue, causing a "demonstrable detriment in identifying tastes," Doty says. Of the losses study participants experienced, 32% showed diminished salty taste, 25% experienced less sweet taste, 22% lost sour taste and 15% were missing bitter taste when compared with controls.

While taste changes may come and go over weeks or months, as happens to O'Brien, there's no direct evidence that they signal a worsening of your MS, according to Barker.

Factors contributing to a loss of taste

If your food seems "odd" or "off," talk to your healthcare provider about whether it could be a side effect of a medication you're taking, suggests Alex Burnham, director of TBH Institute and Rehabilitation Services at the Boston Home, where he works with people with MS. "If you can correlate it with the start of a medication — for MS or something else you're using for symptom management — see if taking a lower dose or stopping the medication resolves the symptoms." Of course, you need to do a risk-benefit analysis first, he adds. Be sure to have any changes in your medication regimen approved by your healthcare provider.

Bostick names at least five medications you may be taking for primary MS symptoms that could alter taste sensations and contribute to dry mouth:

- The disease-modifying therapies (DMTs) Lemtrada, Aubagio and Copaxone
- Medications such as oxybutynin, often prescribed for bladder control issues
- The muscle relaxants and spasticity medications Baclofen and Dantrolene
- Antidepressant medications
- Dexamethasone, a steroid medication used to treat MS exacerbations, which may trigger a metallic taste (using plastic utensils can help with that, Bostick says)



Mona Bostick, a dietitian-nutritionist who also lives with MS, recommends experimenting with different flavors.

And since MS often exists alongside comorbid conditions, it's essential to look at those medications, too. "The mechanisms by which [medications] impact taste and smell are numerous," Bostick explains, "and multiple medications may work in different ways to have a cumulative impact on one's ability to taste." She lists these types of medications as potential offenders:

- Anti-epileptic/seizure medications
- Antibiotics used to treat infections
- Antihistamines for allergy symptoms
- Antihypertensives (blood pressure medications)
- Cannabinoids
- Diuretics
- Gout medications
- Lipid-lowering agents
- Opioid pain relievers
- Psychiatric medications

Lastly, comorbid conditions may be directly associated with dry mouth. Conditions include:

- Cystic fibrosis
- Diabetes
- Hormonal imbalances
- Hypothyroidism
- Lupus

- Removal of the salivary glands
- Rheumatoid arthritis
- Sjogren's syndrome
- Sleep apnea

What 'taste loss' is really like

In MS, taste loss doesn't mean zero taste. That's because taste is a symphony of sensations involving not just your ability to detect salty, sweet, sour, bitter and umami (savory) flavors, but also food texture, color and temperature, as well as your sense of smell. "What we experience as flavor is all of these senses working together," Bostick says.

Former professional chef Trevis Gleason, 55, likens taste to a spectrum of color. "When I experience lack of salt, it's easy to say, 'That's OK, I don't care much for salt,' but that's like saying 'I don't like the color blue,'" says Gleason, who was diagnosed with MS in 2001. "Blue isn't just sky blue. If blue isn't there, it makes leaves yellow and the sea black." Since foods reflect a nuanced balance of all five basic tastes, a single omission disrupts the whole. "Take out one color," he says, "and then all the colors are wrong."



Trevis Gleason, a chef who lives with MS, uses creative seasoning blends to boost flavor. Photo by Elaine Kennedy

One of the first taste glitches Gleason noticed — his baking soda toothpaste — showed him which of the basic tastes he was missing. "You can imagine how much sweetness goes into toothpaste to balance the sodium," he says. "Since I couldn't taste salt, it was like brushing my teeth with treacle." When Gleason, who now lives in Ireland, told his MS nurse practitioner he'd stopped tasting salt, she replied that she'd never heard of someone losing a specific taste before. Gleason said, "Well, have you ever talked to someone with a classically trained palate?"

Gleason, whose book, “Chef Interrupted,” won Best Culinary Memoir of the Year in 2016, initially lost 20 to 30 pounds after losing his taste for salt “because eating became unpleasant,” he says. But he put that weight back on — and then some, he adds — by finding ways to make food more enjoyable during times when his sense of taste is less.

How to preserve or improve your sense of taste

Although there are no known medical treatments for lost taste, the issue can resolve on its own, often when an exacerbation subsides. If it doesn't, you may see some improvement with these techniques.

- **Explore the spice cabinet.** “Diversify the flavors in your diet,” Burnham suggests, adding that many people get stuck in a rut of the same old herb blend. “If you’ve never tried a Middle Eastern za’atar mix — it’s both savory and a bit sour — it adds a different dimension,” he says. Experiment with marinades and condiments such as horseradish, mustard, balsamic vinegar reduction, salsa and hot sauce. O’Brien says sriracha and spicy chipotle mayo are her new go-to condiments, and Bostick swears by the sodium-free herb blend Mrs. Dash (she is not affiliated with the brand).
- **Marinate meats.** Proteins such as red meat, poultry and seafood often taste “off” for people with MS experiencing taste issues. “Try marinating meats in sweet or acidic juices like orange or lemon juice (plus herbs), or a spicy salad dressing, to “elevate the positive and offset the less pleasant flavors,” Bostick says.
- **Add tart foods.** Acidic fruits and drinks — including oranges, grapefruits, lemonade and grapefruit juice — can stimulate saliva production, which will enhance your ability to taste, according to Bostick. O’Brien eats citrus fruits because they’re the one food that still “explodes with flavor.”
- **Engage all of the various senses related to taste.** Barker recommends eating foods with new textures to “stimulate the tongue and mouth and heighten the senses” and changing the temperature of foods — warm tastes stronger than cold because it’s more aromatic, engaging your sense of smell.
- **Ban things known to dull taste.** Bostick says smoking has a significant negative impact on the capacity to both smell and taste, which is yet another reason to quit the habit. Alcohol can worsen dry mouth, which hampers taste, so try drinking in moderation or abstaining. That goes for any mouthwash that contains alcohol, too. To make your own alcohol-free version, add ¼ teaspoon baking soda and 1/8 teaspoon salt to 1 cup warm water, then rinse with plain water afterward.
- **Address dry mouth directly.** Stay hydrated, even if it means more bathroom breaks. “Bladder issues may lead to avoiding fluids to prevent accidents, but doing so may contribute to dehydration,” Bostick says. She suggests trying artificial saliva, a combination of ingredients designed to mimic the stuff produced naturally by our glands. It comes in over-the-counter sprays, rinses, gels, swabs and dissolving tablets and can help lubricate the mouth and enhance taste. Try rinsing before meals. Bostick says it may improve the flavor of foods.
- **Slow down.** “Eat mindfully,” Bostick advises. “Take small bites, chew slowly, and move

food around your mouth to stimulate all of your taste and sensory receptors.”

Spice it up

Trust chef Trevis Gleason, who lives with MS, to reveal the secret ingredients for bigger, bolder and better flavor.

His first tip: Add MSG. “A lot of people will freak out when I say monosodium glutamate, but glutamate is a molecular structure that occurs naturally in a lot of foods known to be high in umami, like seaweed,” he says. MSG, available in shakers at supermarkets and online, is usually made by fermenting starch, sugar beets, sugar cane or molasses. Some versions, such as Accent, have added sodium.

If you’re sensitive to MSG (some people claim it causes side effects), try incorporating more foods that are naturally high in glutamate: tomatoes, open-gill mushrooms, rinds of hard cheeses like Parmesan and Pecorino, certain seaweeds, anchovies, soy sauce and miso paste. “If you’re cooking a rich stew, add a handful of oyster mushrooms and a cheese rind,” Gleason says. “MSG doesn’t add taste — it just opens the taste buds, so you can taste more of what’s already there.”

Gleason’s weapon of choice is a spice blend of his invention that he calls the “umami bomb.” “People love it because you put half a teaspoon into sauce, soup and gravy, and it just explodes things,” he says. Gleason markets the “umami bomb” in Ireland, but you can make your own with this flexible recipe:

Umami bomb

- Red miso powder
- Tomato powder
- Wild mushroom powder blend
- Dried seaweed

Use equal amounts of each ingredient (e.g., 1 tablespoon each, etc.), and grind them into a fine powder. Add to sauces, soups, stews or any foods that need a pop of flavor.

Freshly ground, it keeps for up to one year in an airtight jar.

Aviva Patz is a writer in Montclair, New Jersey.

Learn more about [loss of taste](#).