

# February 2021 Newsletter



## Does MS Affect Your Taste?

Taste, the sense that adds flavor to life, is a complicated process. The tongue has small bumps (called [papillae](#)) scattered across its surface, many of which contain taste buds. Taste buds send messages to the brain about how something tastes. There are five primary types of taste: bitterness, sourness, saltiness, sweetness and umami (or savory), each is associated with a different area on the tongue. The number and pattern of taste buds on a person's tongue is determined by genetics, making everyone's taste inherently unique. Numerous factors can affect this important sense, including aging, illness, and more.



According to the National Institute on Deafness and Other Communication Disorders (NIDCD), there are three types of [taste disorders](#). A complete loss of the sense of taste is called **ageusia**. **Dysgeusia** causes a persistent taste in the mouth that can mask other tastes and make all foods taste the same. **Hypogeusia** is a reduced ability to taste things. It's important to note that the sense of smell significantly affects one's taste. An individual may have partial or total loss of smell ([anosmia](#)) which may influence the flavor of food. [Research](#) shows that 95 percent of the time there is a loss of taste, it is associated with a reduced sense of smell.

Taste bud function can be impacted by numerous factors, such as smoking, [vitamin deficiencies](#) and some [medications](#). As a person ages, their taste buds not only decrease in number, but their function also changes, making it harder for them to perceive taste.

Upper respiratory infections can cause nasal congestion and a runny nose. These symptoms often reduce the sense of smell, which in turn can impact the perception of



taste. A [recent study](#) shows a sudden loss of smell occurs in approximately 40 percent of people with COVID-19 (without a runny or stuffy nose), and is often accompanied by altered taste. Interestingly, [research](#) suggests this often happens prior to other COVID-19 symptoms (suggesting these sensory deficits may be early symptoms of the virus).

Any medical condition that affects the brain, nose or mouth can impact one's ability to taste. Nerve damage anywhere along the pathway from the mouth to the brain, whether from injury or an illness like MS, can affect one's palate. A [2016 study](#) suggests that one in four people with MS may experience a diminished sense of taste. Investigators administered taste tests to 73 subjects with MS and 73 control subjects. Participants received small drops of liquids (sweet, sour, bitter and salty) on their tongues and were asked to identify the tastes. Interestingly, women outperformed men on all taste measures regardless of MS diagnosis (more research is needed to understand why). Among participants with MS, results showed that approximately 15 percent exhibited a loss in bitter taste, 22 percent a loss in sour taste, 25 percent a loss in sweet taste, and 32 percent a loss in salty taste, compared with the controls. Participants also underwent MRI brain scans that showed these taste deficits were associated with MS-related lesions throughout the brain.

Losing the sense of taste, even partially, can be very distressing as tasting food is an important part of life's experience for many people. The following tips may help make these a reduction or loss of taste more tolerable. Seasoning food more strongly with herbs, spices, and flavorings may make them taste better. Trying new foods (particularly those with intense flavors) may reveal ones that are more appealing. There is [evidence](#) that the temperature of food affects how it tastes. If the option of heating something up exists, rather than eating it cold, the



heated food will likely be more flavorful. The texture of food is another important factor to consider. Try foods with a variety of textures (crispy, crunchy, creamy, etc.), as some may be more appealing than others. The appearance of food can also make it more or less appetizing. Preparing foods in a variety of colors and adding garnishes may help. Keeping a detailed food journal can help determine which of these options made the greatest difference. Be sure to record all of the ingredients in dishes, paying special attention to the amount and type of seasonings that were used and noting how they tasted. The end result will hopefully be a more appetizing list of food options.



As we discussed in our [April 2019 newsletter](#), changes in neural connections may occur with “mental exercises,” such as learning new things or memorizing new information. This ability to change is often referred to as [neuroplasticity](#). These new nerve networks are reinforced and strengthened through behavior. In light of this, keeping the senses active may help bolster and preserve them. For individuals experiencing a loss of taste, it may help to practice tasting foods from different categories of taste, such as chocolate (sweet), lemons (sour), coffee (bitter), and pretzels (salty). Strengthening one’s sense of smell (which is linked to taste) by sniffing foods that have a strong, characteristic smell may also have a positive effect on taste (for example, cinnamon or fresh garlic). Smelling aromatic items like baby powder or a scented candle may also help in this regard.

Relishing a delicious meal is an enormous pleasure for most people. Not being able to enjoy the taste of food steals that experience and significantly reduces quality of life. A diminished sense of taste can also impact appetite and make it harder to stick to a healthy diet. There are a number of ways to make meals more appealing. However, it’s important to keep nutrition in mind while experimenting with different foods. A well-balanced diet combined with other healthy lifestyle choices is the foundation of good health not only for people with MS, but also for the general public.

