
DYSGEUSIA

Dysgeusia is a condition where a person's perception of taste is altered; everything seems sweet, sour, bitter, or metallic. Taste disorders are common in adults. A study performed on adults in the United States indicated that up to 17 percent of those tested had some impairment in taste. Impaired taste can take many forms, including:

- Hypogeusia, which is a reduced or diminished sense of taste
- Ageusia, which is a complete loss of taste
- Aliageusia, when a typically pleasant-tasting food or drink begins to taste unpleasant
- Phantogeusia, which refers to tasting something that is not actually there, or hallucinating a particular taste

The tongue and throat have many taste receptors. Three different nerves contribute to the sensation of taste depending on where in the mouth the taste receptors are located. The front of the tongue is innervated, or supplied, by cranial nerve VII, called the facial nerve, through the chorda tympani; the back part of the tongue is innervated by cranial nerve IX, called the glossopharyngeal nerve; and the palate and throat are innervated by cranial nerve X, called the vagus nerve.

Completely losing taste due to injury of a nerve is rare since several nerves are involved. What some people consider a "taste," such as "hot and spicy" or "chemical," may be detected through pain and other receptors working through a completely different nerve, cranial nerve V, called the trigeminal nerve. There are even some taste receptors in the nose, but doctors are still figuring out exactly what role they play.

Humans can detect five different tastes: sweet, salty, bitter, sour, and savory, or umami. It is important to recognize the difference between taste and flavor. Flavor is a multisensory experience that combines both the smell and taste of foods and drinks. While eating, the

smell of food is detected through both the front of the nose and the back of the throat. Depending on the path the smell takes, it can have a different effect. When people lose their sense of smell, they often complain of a loss of taste but what they really mean is that they have lost that combination of smell and taste, or flavor.

WHAT ARE THE SYMPTOMS OF DYSGEUSIA?

The symptoms of dysgeusia can include:

- Food has lost its characteristic sweetness or saltiness
- Foods that used to taste good now taste bad (sour or rotten)
- Foods taste metallic
- A taste is present despite not eating anything

WHAT CAUSES DYSGEUSIA?

Taste disorders are common in adults and can be caused by several factors, such as:

Infection—Bacterial, viral, or fungal infections of the teeth or gums, mouth, and throat can cause swelling, reduce blood flow to taste buds, and/or produce chemicals that alter taste. Some genetic disorders can also make some people crave sweet foods, which can then lead to dental infections that can cause even more taste issues.

Inflammation—Swelling of the tongue can cause the taste pores on it to close. This can sometimes indicate vitamin deficiencies, such as lack of B12.

Vitamin or mineral deficiencies—Deficiencies in the B vitamins, especially B12, as well as certain minerals like zinc have been associated with loss of taste. Supplements can usually reverse this.

Dry mouth—Dry mouth, or xerostomia, can be a result of certain diseases, like Sjogren's syndrome where the body attacks its only saliva glands, common medications such

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as water pills, or diuretics, or from radiation therapy for cancer. Without adequate amount of saliva, food may not dissolve enough to stimulate the taste receptors.

Medication side effects—A variety of medications can cause taste issues. Common ones include angiotensin-converting-enzyme (ACE) inhibitors such as lisinopril or captopril; antibiotics such as amoxicillin, clarithromycin, and metronidazole; diuretics such as acetazolamide and hydrochlorothiazide; and chemotherapy agents, such as bleomycin and carbo/cisplatin.

Nerve damage or trauma—The nerve that supplies the front part of the tongue travels through the ear and splits off from the facial nerve. As a result, Bell's palsy and some ear surgeries can cause a loss of taste. Also, any injury to the other nerves that are responsible for taste due to trauma or surgery in the neck may also cause this problem.

Neurologic disorders—As seen with loss of smell, certain neurologic disorders such as multiple sclerosis, Alzheimer's disease, and Parkinson's disease have been associated with decreased taste.

Metabolic disorders—Kidney disease, diabetes, and hypothyroidism can all cause taste disturbances that can be reversed when treated.

Tobacco use—Active chemicals in tobacco as well as the changes that take place on the surface of the tongue and throat from tobacco use can change the perception of taste.

Acid reflux or GERD—Stomach acid and stomach enzymes can affect how well the taste buds work. Often, people with acid reflux or GERD (gastroesophageal reflux disease) complain of a "brackish" or sour taste.

Aging—The sense of taste can decrease with age, although this is less common than the loss of smell.

WHAT ARE THE TREATMENT OPTIONS?

The treatment options for an impaired sense of taste depend on the exact cause for the dysgeusia or hypogeusia. With mineral or vitamin deficiencies, simply supplementing with a multi- or specific vitamin (B12, B-complex, and zinc) may be helpful. If due to medications, switching to a different medication may help restore a normal sense of taste. Managing other disorders that can trigger loss of taste, such as diabetes, thyroid disorders, or kidney problems, may also lead to improvement.

Reducing or stopping smoking or other forms of tobacco use as well as managing acid reflux either with medications or dietary modifications cannot be overemphasized. Drinking plenty of water can also help with dry mouth due to Sjogren's, radiation treatment, or age-related loss of taste.

WHAT QUESTIONS SHOULD I ASK MY DOCTOR?

1. Do I have a loss of taste or is it from a loss of smell?
2. Could my medications be causing this?
3. Could my impaired taste be a sign of some other disease?
4. Are there supplements that might help?
5. What other things can I do to help improve my sense of taste?