



SMELL AND TASTE PROBLEMS

Smell and Taste Disorders

Smell and taste problems can have a big impact on our lives. Because these senses contribute substantially to our enjoyment of life our desire to eat, and be social, smell and taste disorders can be serious. When smell and taste are impaired, life loses some zest. We eat poorly, socialize less, and as a result, feel worse. Many older people experience this problem.

Smell and taste also warn us about dangers, such as fire, poisonous fumes, and spoiled food. Certain jobs require that these senses be accurate-chefs and firemen rely on taste and smell. One study estimates that more than 200,000 people visit a doctor with smell and taste disorders every year, but many more cases go unreported.

Loss of the sense of smell may be a sign of sinus disease, growths in the nasal passages, or, in rare circumstances, brain tumors.

How do smell and taste work?

Smell and tastes belong to our chemical sensing system (chemosensation). The complicated processes of smelling and tasting begin when molecules released by the substances around us stimulate special nerve cells in the nose, mouth, or throat. These cells transmit messages to the brain, where specific smells or tastes are identified.

Olfactory (small nerve) cells are stimulated by the odors around us-the fragrance from a rose, the smell of bread baking. These nerve cells are found in a tiny patch of tissue high up in the nose, and they connect directly to the brain.

Gustatory (taste nerve) cells react to food or drink mixed with saliva and are clustered in the taste buds of the mouth and throat. Many of the small bumps that can be seen on

the tongue contain taste buds. These surface cells send taste information to nearby nerve fibers, which send messages to the brain.

The common chemical sense, another chemosensory mechanism, contributes to our senses of smell and taste. In this system, thousands of free nerve endings-especially on the moist surfaces of the eyes, nose, mouth, and throat-identify sensations like the sting of ammonia, the coolness of menthol, and the heat of chili peppers.

Flavor

We can commonly identify four basic taste sensations:

- Sweet
- Sour
- Bitter
- Salty

Certain combinations of these tastes-along with texture, temperature, odor, and the sensations from the common chemical sense-produce a flavor. It is flavor that lets us know whether we are eating peanuts or caviar.

Many flavors are recognized mainly through the sense of smell. If you hold your nose while eating chocolate, for example, you will have trouble identifying the chocolate flavor, even though you can distinguish the food's sweetness or bitterness. This is because the familiar flavor of chocolate is sensed largely by odor. So is the well-known flavor of coffee. This is why a person who wishes to fully savor a delicious flavor (e.g., an expert chef testing his own creation) will exhale through his nose after each swallow.

Taste and smell cells are the only cells in the nervous system that are replaced when they become old or damaged. Scientists are examining this phenomenon while studying ways to replace other damaged nerve cells.

What causes smell and taste disorders?

Scientists have found that the sense of smell is more accurate between the ages of 30 and 60 years. It begins to decline after age 60, and a large proportion of elderly persons lose their smelling ability. Women of all ages are generally more accurate than men in identifying odors.

Some people are born with a poor sense of smell or taste. Upper respiratory infections are blamed for some losses, and injury to the heat can also cause smell or taste problems.

Loss of smell and taste may result from polyps in the nasal or sinus cavities, hormonal disturbances, or dental problems. They can also be caused by prolonged exposure to certain chemicals such as insecticides and by some medicines.

Tobacco smoking is the most concentrated form of pollution that most people will ever be exposed to. It impairs the ability to identify odors and diminishes the sense of taste. Quitting smoking improves the smell function.

Cold remedies that contain zinc, particularly nasal sprays, have been found to be occasionally associated with altered or permanent loss of smell

Radiation therapy patients with cancers of the head and neck later complain of lost smell and taste. These senses can also be lost in the course of some diseases of the nervous system.

Patients who have lost their larynx (voice box) commonly complain of poor ability to smell and taste. Laryngectomy patients can use a special bypass tube to breathe through the nose again. The enhanced air flow through the nose helps smell and taste sensation to be re-established.

How are smell and taste disorders diagnosed?

The extent of loss of smell or taste can be tested using the lowest concentration of a chemical that a person can detect and recognize. A patient may also be asked to compare the smells or tastes of different chemicals, or how the intensities of smells or tastes grow when a chemical concentration is increased.

Smell. Scientists have developed an easily administered scratch-and-sniff test to evaluate the sense of smell

Taste. Patients react to different chemical concentrations in taste testing, this may involve a simple sip, spit, and rise test, or chemicals may be applied directly to specific areas of the tongue.

Can smell and taste disorders be treated?

Sometimes a certain medication is the cause of smell or taste disorders, and improvement occurs when that medicine is stopped or changed. Although certain medications can cause chemosensory problems, others-particularly anti-allergy drugs-seem to improve the senses of taste and smell. Some patients, notably those with serious respiratory infections or seasonal allergies, regain their smell or taste simply by waiting for their illness to run its course. In many cases, nasal obstructions, such as polyps, can be removed to restore airflow to the receptor area and can correct the loss of smell and taste. Occasionally, chemosenses return to normal just as spontaneously as they disappeared.

What can I do to help myself?

If you experience a smell or taste problem, try to identify and record the circumstances surrounding it. When did you first become aware of it? Did you have a cold or flu then? A head injury? Were you exposed to air pollutants, pollens, dangers, or dust to which you might be allergic? Is this a recurring problem? Does it come in any special season, like hay fever time?

Bring all this information with you when you visit a physician who deals with diseases of the nose and throat (an otolaryngologist-head and neck surgeon). Proper diagnosis by a trained professional can provide reassurance that your illness is not imaginary. You may even be surprised by the results. For example, what you may think is a taste problem could actually be a smell problem, because much of what you think you taste you really smell.

Diagnosis may also lead to treatment of an underlying cause for the disturbances. Many types of smell and taste disorders are reversible. But, if yours is not, it is important to remember that you are not alone. Thousands of other patients have faced the same situation.

Causes: Altered or loss of taste sensation

Miscellaneous Causes:

Aging (difficulty detecting salty or bitter taste)

Anxiety Disorder

Cancer

Renal Failure

Hepatic failure

Endocrine Disorders:

Cushing's Syndrome

Hypothyroidism

Diabetes Mellitus

Vitamin Deficiency:

Vitamin B3 Deficiency

Zinc Deficiency

Local injury or inflammation:

Radiation therapy

Glossitis

Tobacco abuse

Denture use

Medications:

Antirheumatic Drugs (e.g. Penicillamine)

Antiproliferative drugs (e.g. Cisplatin)

Azelastine

ACE Inhibitors

Clarithromycin

Zopiclone

Neurologic conditions:

Bell's Palsy

Familial Dysautonomia

Multiple Sclerosis

Information from:

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