PACIFIC HEAD & NECK℠

PACIFIC NEUROSCIENCE INSTITUTE®

Providence

SMELL AND TASTE DISORDERS

Olfaction is an important chemical sensory waring system with emotional impact, in regulation of food intake, in interpersonal relations impacting all aspects of quality of life.

"Vulnerability due to inability to sense gas or fire "

"Weight loss, decrease social interaction, depression"

"Self-conciousness due to inability to sense personal hygiene"

CAUSES:

- Losing olfaction or smell with the consequential impact on taste is a normal part of aging as is a decrease in vision and hearing. As olfacation gives **70%** of the sense of taste by recognizing the odors released by chewing and of crushing food, breathing out through the back of the nose, forcing these odors to stimulate the olfactory organ which is located at the roof of the nose.

AGE RELATED SMELL & TASTE LOSS: POPULATION DATA

- General population before 60 years of age: **9%**
- Decrease in smell at 65 years of age: **33% (1/3)**
- Decrease in smell at 75 years of age: **60% (2/3)**
- Decrease in smell over 80 years of age: **80%**

COMPLETE LOSS OF SMELL & TASTE DUE TO AGING

- At age 70: **5-15%**
- At age 80: **55% (1/2)**

CAUSES OF SMELL AND TASTE LOSS (NOT AGE)

- Viral infection
- Head trauma
- Medication induced (Chemotherapy, etc.)
- Toxic chemical exposure

NEURODEGENERATIVE DISORDERS

- Parkinson's disease
- Multiple sclerosis

NOSE STRUCTURAL ABNORMALITIES

- Deviated septum, Nasal polyps
- Sinus infection

The Anterior Tongue give Sweet and Sour/Salt stimulation through the facial nerve and the trigeminal nerve in the nose give reactive chemical sensation: Ammonia-Pungent smells (causes nervous system reaction-heart rate, pupil size, sweating).

DIAGNOSIS

Through scratch and sniff smelling testing. Sugar-Salt on the right and left anterior tongue CT scan of the nose and sinuses to evaluate structural issues. MRI of the Brain to evaluate neurogenerative disorders.

TREATMENT

1. **Visual Memory Stimulation:** Looking at a food and remembering the smell or taste.
   - Actively preparing the food (One study demonstrated a 50% improvement).
   - Marinate textured foods in sweet and sour sauce, wine.
2. **Olfactory Provactive Therapy:** 5 Scents in a bottle-sniffing twice a day each nostril independently for at least 3 months (Rose, Eucalyptus, Lemon Lavendar, etc.)

Pacific Neuroscience Institute | 310-829-8701
Playa Vista | 424-443-5530
Saint John's Medical Plaza | 310-829-7792
Torrance | 310-829-7792

Brentwood | 310-477-5558
11645 Wilshire Blvd. Suite 600
Los Angeles, CA 90025

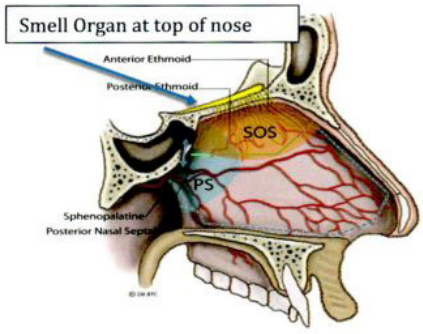
Visit us at pacificheadandneck.com | pacificneuro.org

SMELL AND TASTE DISORDERS

SMELL TRAINING

- "Chris Kelly Smell Training" - Chris Kelly - YouTube
- Monell Smell Institute: Monell.org
- Abscent: Abscent.org
- "NoseWell": Smell Training
- Find on Amazon or any market that sells Aromatherapy

3. **Medications:**
   - Multivitamin B Complex/Zinc supplement
   - Ginkgo Biloba 120 mg once a day
   - Pentoxilylline 400 mg three times a day
   - Alpha Lipoic Avid 600 mg once a day
   - Antidepressants (30-40% of patients have depression related to loss of smell and taste)
4. **Salts/Spices:** Monosodium Glutamate (MSG)/Accent (low sodium salt substitute), jalapeno peppers, unami, wasabi, bacon bites, sun dried tomatoes, tart fruits (lemonade, gradpefruit juice)
5. **Food Texture and Temperature:** Rough foods-crunchy-warm-hot in temperature



Smell and taste belong to our chemical sensing system, or the chemosenses. The complicated processes of smelling and tasting begin when tiny molecules released by the substances around us stimulate special cells in the nose, mouth, or throat. These special sensory cells transmit messages through nerves to the brain where specific smells or tastes are identified. Olfactory or smell nerve cells are stimulated by the odors around us – the fragrance from a gardenia or the smell of bread baking. These nerve cells are found in a small patch of tissue high inside the nose, and they connect directly to the brain. Gustatory or taste cells in the mouth send taste information to their nerve fibers. The taste cells 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. A third chemosensory mechanism, called the common chemical sense, contributes to our senses of smell and taste. In this system, thousands of nerve endings – especially on the moist surfaces of the eyes, nose, mouth, and throat – give rise to sensations like the sting of ammonia, the coolness of menthol, and the irritation of chili peppers. We can commonly identify four basic taste sensations sweet, sour, bitter, and salty. In the mouth these tastes, along with texture, temperature, and the sensations from the common chemical sense, combine with odors to produce a perception of flavor. It is flavor that lets us know whether we are eating a pear or an apple. 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. That's because the familiar flavor of chocolate is sensed largely by odor. So is the well-known flavor of coffee.