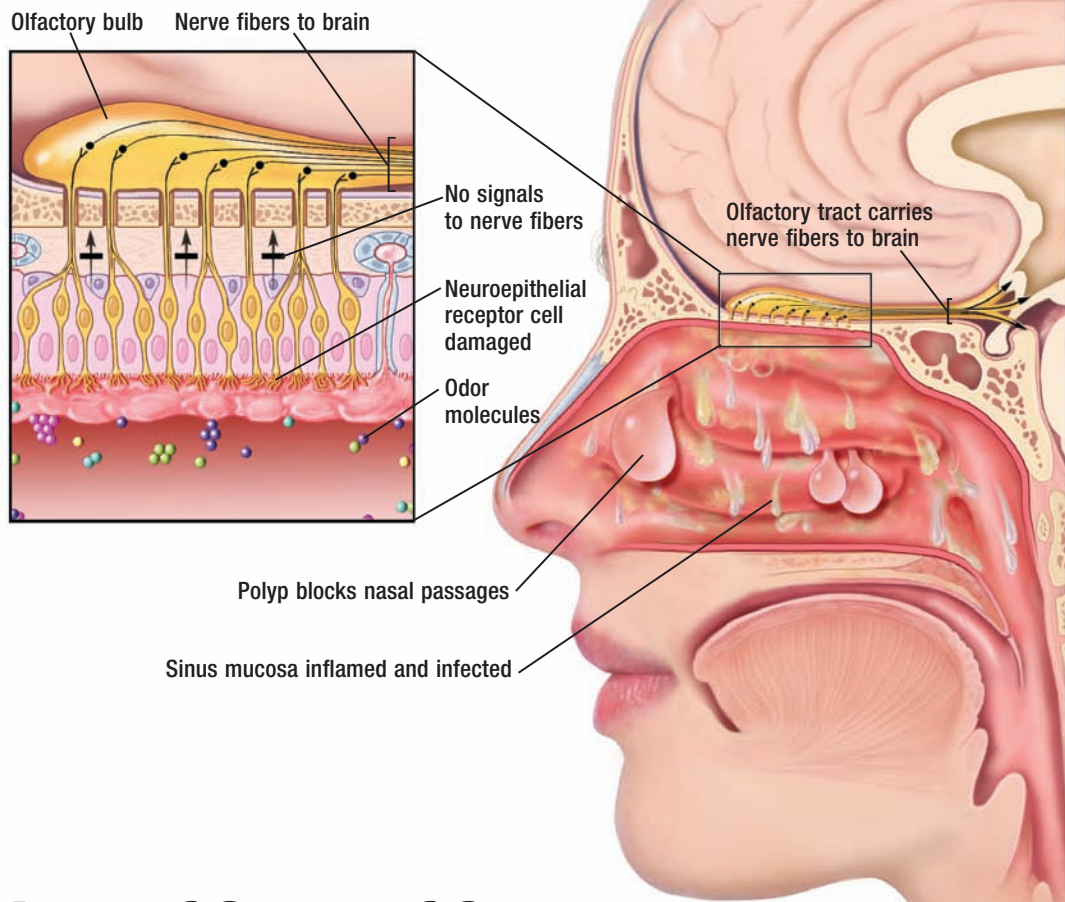


Anosmia



Loss of Sense of Smell

The loss of smell (anosmia) is not a serious disorder, but it can significantly affect one's quality of life. Taste and smell are closely linked, so people with anosmia also are unable to properly taste food.

The sense of smell requires olfactory sensory neurons, sensing cells that detect odors and relay this information to the brain. These neurons are found in the nasal lining. When food is chewed, the odor travels up the back of the throat to the nasal passages. If there is a blockage or swelling in the nasal passages, odor messages are not transmitted to the brain. Likewise, if the specialized neurons are destroyed, the brain cannot receive these sensory messages.

There are three major causes of anosmia. Swelling or obstruction in the nasal passageways, usually from chronic congestion caused by allergy or nasal polyps, can lead to partial or complete loss of smell. Chronic sinus inflammation from infection or allergy, exposure to drugs or toxic chemicals, or tumor invasion can cause loss of smell when the nerves in the lining of the nasal passages are destroyed. Diseases of the nerve pathway that transmits smells to the brain (e.g., head trauma, surgery, central nervous system infection or tumors, Alzheimer's disease) can cause anosmia.

Anosmia caused by a treatable condition, such as nasal polyps or sinusitis, can be reversed. The treatment goal is to remove the obstruction or the cause of nasal swelling. If anosmia is caused by a drug, the medication can be discontinued. Once corrective measures are taken, the sense of smell may be restored. For many causes of anosmia, no specific treatment is available, and the loss of smell may be permanent.

The Ability to Taste and Enjoy Food May Also Be Compromised

The loss of sense of smell (*anosmia*) is a relatively unusual condition that is more common in men than in women. The risk of anosmia increases with age, and at least a partial loss is common by 60 years of age.

Causes of the Disorder

The primary causes of anosmia include obstruction (blockage) of the nasal passageways, destruction of the tissue lining the nose through inflammation or swelling, and a loss of nerve transmission from sensory neurons in the nose to the brain.

Nasal-passage obstruction can occur with benign growths (nasal polyps) or tumors. Congestion from a cold, sinus infection, or allergy flare-up is a common cause of temporary nasal obstruction and loss of smell.

If chronic inflammation of the nasal lining from infection or allergy destroys the nasal tissue, a permanent inability to sense odors can result. Certain drugs or exposure to toxic chemicals can cause anosmia for the same reason. Intranasal zinc products, decongestant nose sprays, and certain oral drugs, such as nifedipine and phenothiazines, are examples of drugs that may cause permanent loss of smell.

Anosmia may also result from diseases of the nerve pathways that transmit smells to the brain. This can occur in cases of head trauma, surgery, infection or tumors in the central nervous system, or Alzheimer's disease (AD).

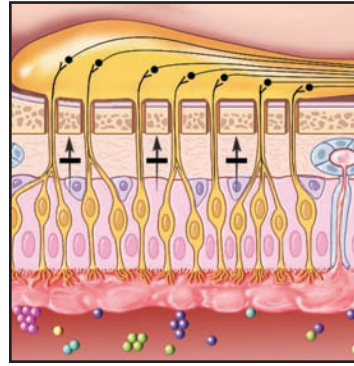
When the sense of smell is abruptly lost, the probable cause is infection, a drug side effect, head trauma, or exposure to a toxin. When the sense of smell gradually disappears over time, the more likely cause is sinus inflammation, chronic obstruction from infection or allergy, or a progressive disease such as AD. The slow onset and progression of loss of smell also can be a normal part of aging.

Diagnosis and Management

The diagnosis of anosmia is made by taking a thorough history of symptoms and considering any past events that could cause anosmia, such as recent head trauma or nasal congestion from an upper respiratory infection. The nasal passageways are examined, and a test kit that includes materials with intense odors may be used to determine whether a serious loss of smell has occurred. If the cause of anosmia is not apparent, computed tomography or MRI of the head may be performed to identify other causes.

Management of anosmia is aimed at eliminating an identifiable cause that is treatable. Many causes are not treatable, and the loss of smell is permanent. Examples of treatable causes include sinus infection, allergy congestion, drug-induced anosmia, and nasal polyps. Even if a cause is successfully eliminated, the loss of smell may persist. If anosmia is permanent, it is important to be aware of associated dangers. Loss of smell includes the inability to detect harmful odors such as natural gas in cooking and heating systems or smoke from a fire. Homes should be equipped with smoke and natural gas detectors.

The ability to taste food is closely tied to the sense of smell, and people with anosmia often have difficulty enjoying food. Weight loss or gain may accompany anosmia when food no longer tastes the way it should. Food spoilage may go undetected, so it is important to check expiration dates and to inspect food carefully before eating.



Anosmia occurs when the olfactory sensory neurons in the nose cannot transmit odor messages to the brain.