

# SMELL AND TASTE DISORDERS

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## How does my sense of smell work?

Specialised sensory cells high up in the nose are able to detect the smell of microscopic particles of whatever you breathe in through your nostrils. These cells connect directly to the brain through the bone of the roof of the nose.

The second pathway through which you are able to detect smells is via the channel between the back of the throat and the nose. When you chew food, aromas are released which pass up to the nose through this pathway.

Your sense of smell is also affected by what is called ‘common chemical sensation’.

This consists of many hundreds of sensory cells all over the lining of the eyes, nose and throat.

These act as a protective mechanism to detect particularly strong odours such as bleach, peppermint or chemicals.

The mechanism by which you are able to taste is via taste buds all over your mouth. These are able to detect the basic tastes of salt, sweet, bitter and sour.

By its ability to detect and put together both the taste and smell inputs, your brain is therefore able to allow you to appreciate the flavour of what you eat and drink.

Problems with smell or taste may therefore inhibit the perception of flavour.

## Why can't I smell properly ?

Smell disorders occur in up to 2% of the general population. The sense of smell declines as we get older (up to a quarter of people over 60 may have a decrease in their sense of smell) and problems are more common in men.

Up to 20% of people with smell problems may have no detectable cause for their smell problems, but people who start to notice a problem with their smell have usually experienced a recent illness or injury to the nose or head region.

The commonest causes of smell problems are:-

- *Blockage of the nose or sinuses due to infection or nasal polyps (rhinosinusitis).*

This causes impairment of the passage of the particles inside the nose up to the smell sensors.

- *Cold or Flu viral illnesses* (‘Upper Respiratory Tract Infections’ or URTI) may damage the smell sensors by a direct toxic action of the virus itself.
- *Head Injuries* may result in damage or tearing of the delicate smell sensors and nerves as they pass through the roof of the nose into the brain.

- *Infection or inflammation in the mouth and dental problems* may impair taste and therefore impact on the ability to detect flavour. *Cigarette smoking* may well exacerbate this.
- *Medicines* (such as some antibiotics, antihistamines or tablets for high blood pressure) may cause problems.
- *Vitamin and mineral deficiency* (such as Vitamin B12 and Zinc) may be a factor.

When you have problems of this nature, you may experience a complete loss of smell (commonly due to nose and sinus problems or head injury), partial loss of smell (commonly due to viral illness) or alteration in smell or taste (usually unpleasant), which may be due to faulty nerve regeneration after previous damage, akin to crossed wires in an electrical circuit.

### Are smell problems serious ?

The most obvious effect of your smell problem is the loss of your ability to fully appreciate and enjoy food and drink, which may have a significant effect on your quality of life.

Your sense of smell also allows you to detect potentially dangerous things such as fire, smoke or dangerous chemicals, as well as to realise when food or liquids such as milk are spoiled or rotten before you eat them.

If you can't smell or taste properly, your diet may change to more sweet or salty foods to compensate for this. This may cause or worsen problems such as diabetes or high blood pressure as a result.

Very rarely, smell problems may be an indicator of more serious problems such as Parkinson's disease, Multiple Sclerosis or a brain tumour.

This is extremely uncommon, however, and many smell problems are due to more minor causes that are eminently treatable once diagnosed.

### Can smell problems be treated ?

Many smell problems are treatable and the other important thing to remember is that your sense of smell may well improve on its own, given time.

The most important factor, however, is to have this problem properly investigated by myself as soon as possible to see if there is a clinically obvious and treatable cause for the deterioration in your sense of smell.

As well as a complete and thorough examination of your nose and throat, I can carry out objective tests of your sense of smell to fully diagnose the extent of your problem. As well as these, it may be necessary to carry out a CT scan of your nose, sinuses and brain to complete the diagnostic pathway.

All these tests can be carried out during your first outpatient consultation as part of the 'one-stop' ethos of The Canterbury Nose Clinic.

As soon as I have these results to hand I can instigate the most appropriate medical or surgical treatment, tailored to your individual problem.

