

## Introduction

This Fact Sheet provides information on how to treat patients for Phantosmia with different symptoms, situations and circumstances.

## Phantosmia

- Phantosmia is detecting an odour that isn't there, and is also called 'olfactory hallucination'.
- Hyposmia / anosmia means reduced or loss of sense of smell.
- Parosmia is when people have an altered sense of smell for something that other people can smell.

Phantosmia is a surprisingly common reason for referral to neurology and was prevalent before COVID-19. We anticipate an increase in the problem post-COVID-19.

Most people with Phantosmia report it as an intermittent smell of something burnt, foul or unpleasant. Cigarette smoke and petrol are common, but olfactory or odorous experiences can be varied and it can be persistent.

### Key features:

- Phantosmia is nearly always benign.
- Smells are typically of something burnt, smoky, or foul, but can be pleasant.
- It can follow on from loss of smell and taste - e.g. after COVID-19.



## What causes Phantosmia?

There are many potential causes of Phantosmia and most are unknown (idiopathic). In a population study of 2,569 Swedish adults over the age of 60, 5% had this symptom. Smoky or Burnt was the most common "smell" in this study.

- **Idiopathic** - by far the most common cause.
- **Structural** - much rarer. Just as people can develop Charles Bonnet visual hallucinations when they can't see, or musical hallucinations when they can't hear, odorous hallucinations can occur whenever the usual olfactory pathways, either in the nose or brain, are disrupted.



## Should I be worried about neurological disease associated with Phantosmia?

Very rarely, especially since 1 in 20 people already have it. However, some causes can be linked to the following:

- **Migraine:** there is a statistical relationship with migraine, this included migraine olfactory aura, but also a relation to generalised brain hypersensitivity seen in people with migraine.
- **Head injury:** head injury like any process associated with loss of sense of smell can trigger phantosmia.
- **Other:** there are case reports associating phantosmia with virtually every brain disease, but they are all rare.



## Do patients need to see a Neurologist or Psychiatrist?

Very rarely. If your patient has this as an isolated symptom, without other focal neurological symptoms and signs, they need reassurance and not investigation or treatment. If they have had a head injury you can explain the mechanism to them. Consider whether there are features of Parkinson's disease or migraine. There is also a condition called 'Olfactory reference syndrome', which is a form of obsessive compulsive disorder. In this condition the patient becomes convinced that they smell bad to other people.



## Should patients go to ENT?

Very rarely. If there are nasal symptoms, then it may be worthwhile, but very unlikely if there are not. Therefore, like a neurological referral, make the referral based on the associated symptoms rather than phantosmia. For example, a clue to a nose problem may be that the problem is in one nostril.



## What treatments can I give and what can I tell my patient about the likely outcome?

Treatment studies only consist of case series of a handful of patients. There is no evidence-based treatment. The good news is that studies of idiopathic phantosmia are reassuring. In a study that followed 44 patients over 6 years, 30% resolved, 25% improved and 40% stayed the same. Worsening was rare and none developed a serious condition such as Parkinson's disease. Unless there are red flags, we would suggest to simply explain how common and benign it is to your patient.



More information can be found here:

<https://www.nhs.uk/conditions/lost-or-changed-sense-smell/>



## References

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