



Topic Osmophobia: Scent-Induced Migraine

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KEY TAKEAWAYS

- Osmophobia refers to hypersensitivity to smell. It can affect people with and without migraine.
- Osmophobia can cause a heightened sense of smell before, during, or in between attacks. It is not classified as an aura.
- Osmophobia is more indicative than light or sound sensitivity of an attack being a migraine rather than a tension headache.
- There's a strong correlation between osmophobia and anxiety and depression.
- Our scent receptors interact with five different parts of the brain, including those responsible for memory, "fight or flight" (anxiety), and pain.
- Pleasant scents (perfumes, air fresheners), volatile chemicals (cleaning products), and scents with smoke (engine fumes, cigarette smoke) commonly affect people with osmophobia.
- About 50% of people with migraine say odors are a trigger for them. Others say they have a heightened sense of smell prior to or during an attack.
- Phantosmia — hallucinating a smell, or phantom smell — is rare in migraine patients; it is more commonly caused by other neurologic conditions.
- The neuro-inflammation from attacks over time increases the sensitivity of sensory nervous systems, including the olfactory system.
- Allodynia (hypersensitivity of the skin) and osmophobia are closely linked.

QUOTES

"We have built into us this alarm system, and smells can trigger that. And it's thought that because of that connection, actually, there is this overlap with anxiety."

"Probably the chemicals that trigger migraines are not being picked up so much by the receptor cells, but the trigeminal nerve can react to chemicals."

"A sympathetic employer could institute a number of recommendations, including being aware not to wear perfumes and colognes to work, but also to minimize certain volatile chemicals, ... and to have good airflow in the work environment."

"When we use the word 'sensitivity,' we're thinking also of the emotional connection, 'Oh, you're too sensitive.' And so, people may feel that this is something they should be controlling and that it's somehow a personal weakness, which is not the case at all."

"There is a neuro-inflammation that comes with each headache, and over time, it's believed that this can change the sensitivity of, and frankly the function of, special sensory nervous systems, including the olfactory one."

TREATMENTS CITED

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| Behavioral therapy | Relaxation techniques |
| Gabapentin | Smell retraining |
| Hypnotic therapies | Triptans |
| Peppermint | Venlafaxine |
| Phenytoin | |

PRACTICAL STEPS

- Avoid scents that trigger your attacks, for example, by wearing a mask. Covering it with another scent (e.g., by chewing peppermint gum) may also be effective.
- Use fans and other methods to improve airflow.
- Advocate with employers to minimize scents and to improve airflow in the workplace.