

Three reasons why strong perfumes give you a headache

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Credit: AI-generated image ([disclaimer](#))

Humans can smell [over 1 trillion odours](#). But no two people will react in quite the same way to the same smell. While there are some smells almost everyone agrees are unpleasant (such as paint thinner or rotten food), our reactions to other types of smells can be far more personal.

Take perfume. While one person may find the smell of a strong, floral perfume to be heavenly, another person may find it gives them a [headache](#). There are many reasons why people can get a physical reaction to strong smells—but here are the three most common ones.

1. Emotions

Of all of our senses, only smell has a direct line to [our emotional system](#). It's thought the reason for this link is because smell evolved first of all of our senses. This means we don't just perceive smell based on the odour chemicals presented to us, but together with all [our memories of that smell](#)—including the way it makes us feel, our past memories, and how we presently feel.

So let's say you smell something you associate with a negative memory. Perhaps it's the smell of cleaning chemicals used in a hospital, or the same perfume your ex used. One whiff may cause [all those negative emotions](#) to come rushing back to you, leading your body to [generate a fight or flight stress response](#).

The fight or flight stress response is your body's way of reacting to stress, anxiety or danger. It causes a number of physical changes, most of which are triggered by the brain going into high alert. One of the first changes you may notice during a fight or flight response is tension around the head and neck area. The reason for this is due to a vasodilation (widening of the [blood vessels](#)) which allows more blood to be diverted to the brain and parts of the body that need it.

Vasodilation also activates [sensory receptors](#) embedded in the blood vessels, which [we perceive as headache](#) pain if the blood vessels in the head and neck are the ones widening.

How we respond emotionally to certain smells is very personal, and

based on a [myriad of experiences](#). It may even be triggered by smells we may not even be conscious of smelling or consciously aware of our reaction to them. But if you tend to get headaches only when you smell certain scents, it may be due to the negative association you have to it.

2. Sinus troubles

The chemicals that activate the smell signals in our brain (called odorants) can sometimes irritate our sinuses. Smoke, perfume and chlorine are some of the most common odorants that cause irritation.

Our sinuses comprise of four distinct, air-filled cavities in the bones of our face. Each are lined with a mucus-secreting membrane. The mucus traps particles and bugs that come in through our nose and mouth. But in order to clear these trapped particles or potential irritants, the body needs to produce more and more mucus—resulting in allergy-like symptoms. This in turn causes our [immune system](#) to kick in and help out, which results in vasodilation and inflammation. The [end result for some is a headache](#).

Some odours may also [act directly on the nerve pathway](#) that transmits the sensory signals to the brain, too. Called the trigeminal pathway, this scoops up all the sensory signals from our head and carries them through the nerve cells to the brain for processing.

When this pathway is stimulated it causes inflammation because it detects a threat that only the immune system can sort out. This, too, can lead to a headache. Chemical smells such as formaldehyde, certain cleaning products and [cigarette smoke](#) are all known to act directly on the trigeminal pathway.

3. Odour intolerance

Osmophobia is defined as an intolerance to odours. While rare on its own, people who suffer from chronic headaches tend to also experience osmophobia.

Migraine sufferers are [particularly prone to osmophobia](#). Some research has even shown that exposure to strong odours for two hours or more can actually trigger a migraine in [around 20% of migraine sufferers](#).

Cigarette smoke, perfumes, car exhaust and cleaning products are some of the most common triggering scents.

The nervous system of someone who experiences migraine can be particularly sensitive to certain sensory stimuli in their daily life. But during the prodrome phase (the first of four distinct migraine phases, which may happen a couple of days to hours before the headache attack) they may become [even more sensitive to certain stimuli](#)—including smells.

Many [migraine sufferers](#) experience certain signs that a migraine is coming during the prodrome phase—such a yawning more and craving certain foods. Smells that wouldn't ordinarily bother you may also [upset you intensely](#). You may also perceive smells that aren't there—known as [phantom smells](#). The most common phantom smell many report before a migraine is a burning smell. So while [smell](#) isn't the [migraine](#) trigger in this instance, it may be a sign of an oncoming headache.

Science has yet to find an effective way to get around this. So, if you're someone that tends to get headaches from certain scents (no matter the reason) perhaps it's best to avoid them as much as you can. But since we can't always avoid triggers, fresh air and painkillers may be the best way to manage any headaches that do occur.

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