# THE SCIENCE OF AIR FRESHENERS

The average person has five senses, and each one is vitally important. However, we tend to underestimate one: smell. However, this is the one sense that can make us incredibly uncomfortable and irritable, can make us turn against one another in an endless search for the culprit. When something smells bad in your house, you’re not happy. Someone did something that released a foul odour, and you really wished they didn’t. But no matter who dragged their hockey bag through the kitchen or whichever dog had an accident on the carpet or even if someone *tried* to cook, it’s not their fault – it’s the little molecules that hang around.

Odour is the result of neutrally charged molecules that hang around and don’t do anything. When something smells bad, the first instinct is to make it smell better, and the easiest way to do that is use an air freshener. A lot of people believe that aerosol fresheners just mask the smell instead of getting rid of it, but there’s actually a lot of science that goes into that little can. When you spray some Febreze around your house, the freshener molecules get to work. These molecules contain plates with a positive and a negative charge. Because of static electricity, we know that objects without a charge will be attracted to those with a charge, so when the air freshener comes close to the odour molecules, the odour molecules attach themselves to the air freshener molecules. The air freshener molecule then charges the molecule, so it sticks to one of the plates and disables the smell. This then lets the air freshener molecule release its own sweet-smelling scent.

There are many types of air fresheners, though. Many plug-in fresheners transform the odour molecule into water upon impact, and fabric refreshers reduce the objects pH level to barely anything. However, aerosol fresheners exemplify static electricity very well. Air freshener molecules attract the odour via induction, according to the third rule of static electricity: charged objects attract neutral objects. When the odour molecules comes close enough to the air freshener, the air freshener charges the molecules with an exchange of electrons, an example of conduction. Air fresheners don’t simply mask the smell – they actually change it. When you spray an aerosol can, it may seem like you’re releasing chemical scent, but you’re actually sending out molecules that police the area for nasty scents. Many people will say to just wash whatever smells bad, but sometimes, that is not the case. It takes a while to wash a carpet, and even if that disgusting garbage bag isn’t in the house anymore, that stink lingers.

However, the sceptics are right about one thing: you are spraying chemicals into the air. When you use an air freshener, you’re adding extra molecules into the air and that can be just as irritating if you have a sensitive nose or if you’re prone to headaches. Air fresheners sure are helpful, but no necessary. We could survive without air fresheners, but humans are incredibly sensitive to smells as we have 350 functional olfactory receptors, the parts of your nose and brain that receive and identify smells. If we didn’t have air fresheners, we would probably use scented candles, and as cozy as those are, they still are dangerous and in some cases, pricey. Air fresheners are incredibly convenient and come in such a large variety of scents, you’re bound to find something you like. So if you’re anti-Air Wick, than you can clean as much as you like, but I’ll settle with my Vanilla and Lilac scented Febreze.

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