# THE SCIENCE OF AIR FRESHENERS

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The average person has five senses, and each one is vitally important. However, we tend to underestimate one: smell. Nevertheless, 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.

Air fresheners or an air cleaner is a device that cleans our air from dust particles. Both these devices use static electricity to work. These objects are great for everyday life, it cleans the air so we can breathe proper air. But is it necessary in our society?

I do not believe the air freshener is necessary, though the air cleaner is. The air freshener makes the air smell nicer, whereas the cleaner actually cleans our air. Without air cleaners polluted areas will become worse and worse to the point that no one could breathe properly. For example, China is has such an elevated population that its pollution is very high. They use air cleaners to reduce the amount of pollution that is in their country. Air fresheners are great to have around the house but are not vital. They are very helpful for stenches throughout your house or you want something to smell great. I don’t believe it is necessary to survive if something doesn’t smell fantastic, but something that does not allow you to breathe is.

Not only that they are not necessary but there are also many health hazards to air fresheners. Air fresheners technically do not freshen the air, instead they chemically release fragrances. These nice smelling odour can actually affect our health. People who may have regular breathing problems could be at risk of complications. There are plenty of options to not even have to use air fresheners. If there is an odour in your home, open a window to allow the air to circle out. By doing so you are cutting down on chances of chemical exposures and other risks.

In conclusion, air freshener’s aren’t vital to our society. They have many more risks to our health then actual uses for it. They are supposed to clean our air to give it a nice smell, instead they chemically release fragments that may affect our health. I hope that as a society that we will stop using these air fresheners if they continue to have an effect on our health, instead we could open a window.

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