# Section 6. Second-hand and third-hand smoke and vape emissions

## What is second-hand smoke? Why is it dangerous?

Second-hand smoke is a mix of two kinds of smoke: one is breathed out by a person who smokes; the other comes from the burning tip of a cigarette. They mix in the air to make second-hand smoke. Second-hand smoke is very dangerous for young people.

Second-hand smoke is dangerous because it contains many chemicals such as cyanide, carbon monoxide, arsenic and benzene.

Many of these are poisons or toxins and have been shown to cause cancer. Some of these toxins can also cause heart disease, lung disease (like COPD or asthma) and stroke.

Second-hand smoke can make your eyes sore and give you headaches, coughs, sore throats, dizziness and make you feel sick.

#### Second-hand smoke and children

Children can get very sick if they breathe in second-hand smoke because their lungs are smaller and still developing. They also often have no way of getting away from the smoke.

They are more likely to go to hospital, get coughs, colds and miss school. Young people exposed to second-hand smoke are at higher risk of bronchitis, asthma, bacterial meningitis and pneumonia.

Smoke spreads around the home and car, even if you open the windows, and bits stick to and build up on surfaces, seats and carpets. Second-hand smoke, and the toxins in it, can reach very high levels in cars because they are small, confined spaces.

# Second-hand smoke can also affect your pets

Cats, dogs, birds, and other pets are all at risk if they live with people who smoke. They will breathe in the toxins from second-hand smoke. They will also be exposed to toxic particles in the room and surfaces around them, and from being in direct contact with their owners. Toxins can get on their fur or feathers and be taken-in when they are grooming themselves, or absorbed directly through their skin.



Animals can develop breathing problems, allergies, asthma, and can even get cancer from being exposed to tobacco smoke.

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### Second-hand vape aerosols

Similar to second-hand smoke, exhaled vape aerosol contains dangerous particles toxins. Aerosols from vaping are dangerous to inhale because they include chemicals such as benzene, cadmium and formaldehyde.

Exposure to ultra-fine particles may:

- make respiratory illnesses like asthma worse
- over the longer term, put you at risk of developing asthma or having a heart attack
- irritate your eyes, throat and airway

Experts emphasize that young people's environments should be 100% vape-free. To protect young people from second-hand and third-hand exposure, vaping should be prohibited, at all times, in homes, cars and any enclosed space.

#### Third-hand smoke and aerosols

Smoke or vaping aerosols can also be absorbed into fabrics, walls, furniture, clothing, household dust, and even on our skin, and it can stay there for a long time. This is called third-hand smoke or exposure to aerosols.

This is why it is strongly recommended to not allow people to smoke inside your house or car as the poisons in tobacco smoke and aerosols are left everywhere and collect over time. This can hurt your body and is linked to poorer health.

It is particularly bad for children. Children can even end up with poisons in their digestive system from touching household items that have these toxins on them and putting their hands in their mouth.