Conduction vs Convection Vaporizers: What's the Difference?

In nature, there are three main ways of transferring heat from one object to another: radiant heating, conduction and convection.

Vaporizers generally employ conduction or convection as a means of transmitting heat to the herb. In some cases, hybrid models use a combination of both methods. Each main method has advantages and drawbacks. In the text below, we will examine some of these.

Radiant heating is like that experienced when you warm yourself by a camp fire: the heat (electromagnetic waves) radiated from the fire warms the surface of your skin and clothes i.e. the mechanism of heat transference occurs without any physical contact between objects. This method is not used as the sole heat transfer method in many vaporizers.

Conduction involves a physical transfer of heat from source to target by direct contact. In the case of a vaporizer, this method involves direct contact between the heating element and the herb. Conduction heating is the most efficient method of the three heat transfer mechanisms but has certain drawbacks.

Conduction vaporizers, such as the Utillian 420 offered by Soothing Vapours, are often more reasonably priced since they use older technology. They can be also more user friendly. The vast majority of current vaporizers use conduction heating.

In a conduction vaporizer, the heat source is in direct contact with your herb. This means that it heats up faster. It also means that the material in contact with the heating element will get hotter than the rest—like cooking in a cast-iron pan on the stove. Giving your herb or oil a stir between pulls will help distribute the heat.

The main drawback to conduction vaporizers is the fact that, as long as they are powered up, they will continuously heat your herb. It is not an economical use of expensive flower when 'your vaporizer is getting stoned without you'. It is a good idea to power down your vape when you are taking a break during a session.

Most wax and pen-style vaporizers utilize this method of vaporization. As the plant material makes direct contact with the heating element, vapor is produced and then inhaled as the user draws through the mouthpiece. Although this method of vaporization results in a quicker heat-up time, it can also lead to combustion if not properly utilized.

Convection is the transfer of heat by movement of liquids or gases. In the case of vaporizers, heated air is drawn or forced through the herb to extract the vapours.

The convection method is preferred by many for vaping flowers. A convection unit evenly heats each mouthful of vapour as you pull, so every hit should be flavorful and potent. And a convection vaporizer only heats the herb when you are actively drawing air through the herb.

Convection is the way to go to preserve both terpenes (the pungent oils that give cannabis its flavor) and for economic reasons – a small amount of ganja can go a long way with this heating method. At Soothing Vapours, we like the economical Sutra Mini and the more upscale Utillian 721 as our convection daily driver vapes.

Choosing between the two methods becomes a little easier if you approach the topic in terms of experience. If you're just starting out, you might want to choose a less expensive, easy-to-use conduction vaporizer. If you consider yourself a "cannasseur," perhaps your more sophisticated palate will dictate choosing a convection vape.

Soothing Vapours offers several reasonably priced convection vaporizers, all highly recommended by our staff from many happy hours of field testing.?

In conclusion, conduction vaporizers are often less expensive and can be more user friendly. Convection vaporizers are more efficient and can often produce better vapour quality. Which type of vaporizers you choose is entirely up to you and should be driven by your individual needs and circumstances.

Happy vaping, my friend!

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