

What is Cannabis Vaporization?

Vaporization is a technique for avoiding irritating respiratory toxins in marijuana smoke by heating cannabis to a temperature where the psychoactive ingredients evaporate without causing combustion.

Laboratory studies by California NORML and MAPS have found that vaporizers can efficiently deliver cannabinoids while eliminating or drastically reducing other smoke toxins.

Like tobacco, marijuana smoke contains toxins that are known to be hazardous to the respiratory system. Among them are the highly carcinogenic polynuclear aromatic hydrocarbons, a prime suspect in cigarette-related cancers. These toxins are essentially a byproduct of combustion, separate from the pharmaceutically active components of marijuana, known as cannabinoids, which include THC. Although there is no proof that marijuana smoking causes cancer, chronic marijuana smokers have been shown to suffer an elevated risk of bronchitis and respiratory infections. Respiratory disease due to smoking may therefore rightly be regarded as the primary physiological hazard of marijuana.

Cannabis vaporizers are designed to let users inhale active cannabinoids while avoiding harmful smoke toxins. They do so by heating cannabis to a temperature of 180° - 200° C (356° - 392° F), just below the point of combustion where smoke is produced. At this point, THC and other medically active cannabinoids are emitted with little or none of the carcinogenic tars and noxious gases found in smoke. Many medical marijuana patients who find smoked marijuana highly irritating report effective relief inhaling through vaporizers. Users who are concerned about the respiratory hazards of smoking are strongly advised to use vaporizers. Alternative devices, such as waterpipes, have been shown to be ineffective at reducing the tars in marijuana smoke.



Cannabis smoke 'has more toxins' Inhaled cannabis smoke has more harmful toxins than tobacco, scientists have discovered.

The Canadian government research found 20 times as much ammonia, a chemical linked to cancer, New Scientist said.

The Health Canada team also found five times as much hydrogen cyanide and nitrogen oxides, which are linked to heart and lung damage respectively.

But tobacco smoke contained more of a toxin linked to infertility. Experts said users must be aware of the risks.

About a quarter of the population in the UK smokes tobacco products, while a sixth of 15 to 34-year-olds have tried cannabis in the past year, making it the most commonly used drug.

“The confirmation of the presence of known carcinogens and other chemicals implicated is important information for public health” David Moir, lead researcher

Previous research has shown cannabis smoke is more harmful to lungs than tobacco as it is inhaled more deeply and held in the lungs for a longer period.

However, it has also been acknowledged that the average tobacco user smokes more than a cannabis user.

Researchers from Health Canada, the government’s health research department, used a smoking machine to analyse the composition of the inhaled smoke for nearly 20 harmful chemicals.

They also looked at the sidestream smoke, given off from the burning tip of the product and responsible for 85% of the smoked inhaled through passive smoking.

Concentrations

In most cases, the comparison on sidestream smoke broadly mirrored that of inhaled smoke.

However, in the case of polycyclic aromatic hydrocarbons, the toxin linked to infertility, the researchers found concentrations were actually higher in cigarette smoke.

The study also showed little difference in the concentrations of a range of chemicals, including chromium, nickel, arsenic and selenium.

Lead researcher David Moir said: “The consumption of marijuana through smoking remains a reality and among the young seems to be increasing.

“The confirmation of the presence of known carcinogens and other chemical is important information for public health.”

Dr Richard Russell, a specialist at the Windsor Chest Clinic, said: “The health impact of cannabis is often over-looked amid the legal debate.

“Evidence shows it is multiplied when it is cannabis compared to tobacco.

“Tobacco from manufacturers has been enhanced and cleaned whereas cannabis is relatively unprocessed and therefore is a much dirtier product.

“These findings do not surprise me. The toxins from cannabis smoke cause lung inflammation, lung damage and cancer.”

Stephen Spiro, of the British Lung Foundation, added the findings were “a great worry”.

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<http://news.bbc.co.uk/go/pr/fr/-/2/hi/health/7150274.stm>

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