



California Chapter of the National Organization for the Reform of Marijuana Laws
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Dec 11, 2013

Sup. Nate Miley
Alameda Co Board of Supervisors
1221 Oak St.# 536
Oakland CA 94612

Dear Sup. Miley:

On behalf of the many county residents who find e-cigarettes and vaporizers a beneficial "harm reduction" substitute for smoking, we are writing to oppose the county's proposed ban on use of e-cigarettes in non-smoking areas. The scientific evidence is clear that smokeless e-cigarettes and vaporizers pose no secondhand health risks to the public. Neither do they undermine the county's anti-smoking laws, because they don't produce smoke in the first place. By prohibiting them like smoking, the proposed ordinance will perversely harm public health by discouraging the substitution of e-cigs for much more dangerous, smoked alternatives.

Cal NORML is particularly concerned that the proposed ban would be harmful to medical marijuana patients, many of whom rely on smokeless vaporizers to inhale their medicine. E-cigarettes are broadly defined in the law to include any device capable of vaporizing nicotine. This includes the full panoply of smokeless vaporizers that are widely used to inhale medical marijuana and other medicinal herbs, which are indistinguishable from those using nicotine. By outlawing their use in non-smoking areas, the ordinance will leave many patients with no place to inhale their medicine indoors away from home.

Scientific studies sponsored by California NORML have shown that vaporizers effectively eliminate noxious smoke toxins from marijuana vapor, delivering a purified stream of medically active

ingredients.¹

In a study of the M-1 Volatizer® (a crude vaporization device compared to newer models), 100% of the measurable gaseous toxins - benzene, naphthalene and toluene - were eliminated from marijuana vapor.² In a follow-up study, another vaporizer, the Volcano®, successfully eliminated over 100 solid-state tars and particulates from the vapor, delivering an effectively pure stream of selected, medically active ingredients (THC and terpenes)³. The effectiveness of the Volcano was subsequently validated in clinical studies by California's Center for Medicinal Cannabis Research⁴, and it has since been approved as a medical device in the European Union.

Vaporizers and e-cigarettes don't produce smoke because they don't reach the point of combustion, but rather evaporate or exude liquid extracts of the active ingredients. This eliminates the toxic tars, gases and particulates which are the source of both primary and second-hand respiratory harms due to smoking such as lung cancer, emphysema and asthma.

In light of these facts, California NORML has long advised marijuana consumers to use vaporizers in order to avoid the respiratory hazards of smoking. In this connection, it should be noted that no second-hand health risks due to marijuana smoking have ever been documented; instead, scientific studies have found that, unlike tobacco, even first-hand marijuana smoking causes neither cancer nor emphysema.⁵ There is accordingly all the less reason to believe that *second-hand* exposure to *smokeless emissions from marijuana vaporizers* present any health hazard to bystanders.

As for nicotine e-cigs, studies consistently show that they offer major harm reduction benefits to tobacco smokers by drastically reducing their exposure to harmful smoke toxins.⁶ Such emissions as have been detected from e-cigarettes are minimal and well below accepted threshold levels.⁷ At worst, they pose no more threat to bystanders than common odors from garden plants, kitchen grills, detergents, incense, deodorizers, gas stations and ambient pollution.

Many ex-smokers report having successfully kicked the cigarette habit by substituting e-cigs instead.⁸ Contrary to the concerns of critics, surveys show that e-cigs aren't a stepping-stone towards smoking, but rather a step away.⁹ Restricting use of e-cigs will therefore adversely impact public health by discouraging their substitution for more dangerous, smoked tobacco alternatives.

The decision to allow e-cigs and vaporizers should properly be up to individual businesses and property owners, not the dictates of intolerant pressure groups. Many employers rightly prefer to let employees use nicotine e-cigs at work, rather than have them go outdoors for a smoking break. **We have no objections to restricting give-aways and sales of e-cigarettes to youth, nor to keeping them**

out of courtrooms, schoolrooms, or similar public facilities.

However, we strongly object to prohibiting their use on privately owned property, businesses, lounges, hotels, residential spaces, medical facilities, etc.

E-cigs and vaporizers pose no health hazard to the public. They should be promoted, not banned, as a healthful harm reduction substitute for smokers.

Sincerely,



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¹California NORML, "California NORML/MAPS Study Shows Vaporizer Can Drastically Reduce Toxins in Marijuana Smoke,"
<<http://www.canorml.org/healthfacts/Second-Study-Shows-Vaporizers-Drastically-Reduce-Toxins-in-Marijuana-Smoke>>.

² D. Gieringer, "Cannabis "Vaporization": A Promising Strategy for Smoke Harm Reduction, *Journal of Cannabis Therapeutics* 3/4, 2001; <<http://www.cannabis-med.org/data/pdf/2001-03-04-9.pdf>>.

³ D. Gieringer, J. St Laurent, S. Goodrich: "Cannabis Vaporizer Combines Efficient Delivery of THC with Effective Suppression of Pyrolytic Compounds," *Journal of Cannabis Therapeutics* 4(1), 2004;
<<http://www.canorml.org/healthfacts/jcantgieringervapor.pdf>>.

⁴ D. Abrams, "Vaporization as a 'Smokeless' Cannabis Delivery System", *Clinical Pharmacology and Therapeutics* 82 (Nov. 2007);
<<http://www.nature.com/clpt/journal/v82/n5/full/6100200a.html>>.

⁵ "Study Finds No Cancer-Marijuana Connection," *Washington Post* May 26, 2006; Li Rita Zhang et al., "Cannabis smoking and lung cancer risk: pooled analysis in the International Lung Cancer Consortium" American Association for Cancer Research presentation:
<<http://www.abstractsonline.com/Plan/ViewAbstract.aspx?mID=3086&sKey=3e3df4f9-a49f-40e7-a260-ccc3c54e0125&cKey=c7c6690d-3e5e-438e-9de4-d6f67a0703fb&mKey=9b2d28e7-24a0-466f-a3c9-07c21f6e9bc9>>.

⁶M. Goniewicz et al., "Levels of selected carcinogens and toxicants in vapour from electronic cigarettes," *Tobacco Control* Mar. 6, 2013.
<<http://tobaccocontrol.bmj.com/content/early/2013/03/05/tobaccocontrol-2012-050859.abstract>>.

⁷ Igor Burstyn, "Peering through the mist: What does the chemistry of contaminants in electronic cigarettes tell us about health risks?"
<<http://publichealth.drexel.edu/~media/Files/publichealth/ms08.pdf>>.

⁸ B. Goodman, "E-Cigarettes May Not Be Gateway to Smoking: Study," Health Day Reporter, Oct. 29, 2013; <<http://consumer.healthday.com/cancer-information-5/tobacco-and-kids-health-news-662/e-cigarettes-may-not-be-gateway-to-smoking-study-681597.html>>.

⁹ 2012 US survey of 10,000+ found current smokers were 156 times more likely than never smokers (6.3% vs .04%) to report past 30 day e-cig use, confirming that e-cigs are a gateway away from (not towards) cigarette smoking. Smokers also were 37 times more likely than long-term former smokers (6.3% vs .17%) to report past 30 day e-cig use, indicating very little use by long-term former smokers<<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0079332>>.