Products containing delta-8 and other THC isomers are increasingly available to consumers, but not without serious health risks.

Products containing delta-8 or other THC forms (referred to as “isomers”) are available online and at vape shops, convenience stores, and gas stations. They are sold as vape cartridges, liquid shots, tinctures, gummies, brownies and other foods, and dried plant material for smoking. Some of these products are marketed to appeal to young people with colorful products and packaging, cartoon-like mascots, and flavors mimicking well-known candies, such as “Lemon Head,” “Banana Runtz,” and “Watermelon Zkittles.”

The Food and Drug Administration (FDA) and the Centers for Disease Control and Prevention (CDC) have both issued advisories warning consumers of the risks associated with consumption and use of delta-8 THC products, which have not been evaluated or approved by the FDA for safe use in any context. Delta-8 THC has psychoactive and intoxicating effects similar to those of delta-9 THC (the cannabinoid responsible for the mind-altering effects of cannabis).

Delta-8 and other THC products are manufactured to expose consumers to higher levels of the THC isomer than naturally occur in hemp. For example, delta-8 THC is one of over 100 cannabinoids produced naturally by the hemp plant, but the natural amount of delta-8 THC in hemp is very low. Additional chemicals are needed to convert other cannabinoids, such as CBD, into concentrated amounts of delta-8 THC.

The FDA and the nation’s poison control centers have received an uptick in adverse event reports involving delta-8 THC-containing products, which can be contaminated with harmful chemicals that are mixed in during the conversion process.

Products containing delta-8 THC may be illegal, and it is impossible for consumers to determine whether a product they intend to purchase is legal.

Under federal law, except under very limited circumstances, it is illegal to knowingly and intentionally purchase or possess a Schedule 1 controlled substance. The Agricultural Improvement Act of 2018 (the 2018 Farm Bill) legalized certain cannabis products derived from hemp, which is where the legal ambiguity for delta-8 THC begins. Whether hemp-derived delta-8-THC is a controlled substance and whether it is illegal under the Controlled Substances Act (CSA) requires a case-by-case analysis.
Cannabis plants containing more than 0.3 percent delta-9-THC are Schedule I controlled substances. Therefore, delta-8-THC products derived from cannabis plants containing more than 0.3 percent delta-9-THC are illegal under the CSA.

Manufacturers and sellers of products containing concentrated THC isomers converted from cannabinoids in hemp argue their products are hemp derivatives. As hemp derivatives, they would be legal under the Farm Bill. The DEA takes the contrary position that chemically converting a cannabinoid in hemp causes the resultant THC isomer to be synthetic, and synthetically derived THC is a schedule 1 controlled substance. The two conflicting interpretations of federal law have not been reconciled in court or by Congress. It can reasonably be expected that some of the products containing delta-8 and other THC isomers proliferating in U.S. markets are derived from cannabis with illegal levels of delta-9-THC. The public has no way of determining a product’s delta-9-THC level before purchasing it. As a result, consumers are unable to determine whether the products they intend to purchase are legal.

Delta-8 THC products may be marketed in ways that pose serious risks to public health as they have not been evaluated or approved by the FDA.

As products containing delta-8 and other THC isomers continue to thrive in the market, the U.S. Hemp Roundtable, a hemp industry organization, has issued a statement opposing the marketing of intoxicating THC products under the guise of hemp. The FDA similarly warns that some of these products may be labeled simply as “hemp products,” which may mislead consumers who associate “hemp” with “non-psychoactive.” Some of these products are also being marketed for unsubstantiated therapeutic or medical uses, which is not only dangerous but a violation of federal law.
Recommendations

Substance misuse prevention professionals can help improve public health and safety by educating community partners on the dangers associated with consuming and using delta-8 and other THC products. For example, prevention leaders can encourage and help equip local health departments and regional poison control centers to release information to healthcare providers and the public about the psychoactive qualities and potential health implications of using delta-8 and other THC products. The FDA and CDC advisories may serve as helpful resources:

- Consumers should also be aware that products containing delta-8 THC may result in psychoactive effects.
- Consumers should be aware of possible inaccuracies in product labeling, even when products are sold by well-known retailers.11

Targeted strategies include identifying relevant groups, such as adolescents and parents, and communicating the messages listed above in culturally and linguistically appropriate ways. Additional targeted messages include:

- Consumers experiencing adverse effects are encouraged to call their local poison control center, seek medical attention in their local emergency department, and report adverse events to the FDA.

Additionally, prevention leaders can inform state legislators and regulators of the pros and cons of adding concentrated delta-8 and other THC isomers, including those derived from hemp, to the state’s list of controlled substances.
3. https://www.fda.gov/consumers/consumer-updates/5-things-know-about-delta-8-tetrahydrocannabinol-delta-8-thc https://emergency.cdc.gov/han/2021/han00451.asp
4. https://www.fda.gov/consumers/consumer-updates/5-things-know-about-delta-8-tetrahydrocannabinol-delta-8-thc https://emergency.cdc.gov/han/2021/han00451.asp
8. https://www.fda.gov/consumers/consumer-updates/5-things-know-about-delta-8-tetrahydrocannabinol-delta-8-thc
9. https://www.fda.gov/consumers/consumer-updates/5-things-know-about-delta-8-tetrahydrocannabinol-delta-8-thc
10. https://www.fda.gov/consumers/consumer-updates/5-things-know-about-delta-8-tetrahydrocannabinol-delta-8-thc

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