



What is Delta-8 and Delta-10 THC and are they safe to use?

Many are aware of the chemical “THC” (Tetrahydrocannabinol) which is the intoxicating chemical in the marijuana (cannabis) plant. The chemical structure of THC from marijuana is Delta-9 THC (D9-THC). The difference between the hemp and marijuana plants is that hemp contains < 0.3% (D9-THC) and marijuana contains > 0.3% (D9-THC). As part of the 2018 Farm Bill, there was a provision that legalized hemp and its constituents meaning that chemicals from the hemp plant, including CBD, could be made available online and in brick-and-mortar stores outside the regulatory framework of state-run medical cannabis programs. Enterprising chemists discovered that CBD and other chemicals from the hemp plant could be converted into other forms of THC called Delta-8 THC (D8-THC) or Delta-10 THC (D10-THC) which shared the intoxicating qualities of D9-THC from marijuana. In a sense, this allowed chemists and sellers to offer a “legal” form of THC outside of regulated medical marijuana programs. There are however many potential problems with D8-THC and D10-THC and their use. These include the following:

They are created and sold outside of the regulatory structures governing medical and recreational (Adult Use) cannabis products, hemp-derived products including CBD, D8-THC, and D10-THC, and therefore do not have testing, labeling, or manufacturing standards. There is no guarantee that a consumer is getting what the package says. In fact, some products may contain much higher amounts of THC than a consumer expects and can easily lead to symptoms of THC overdose including hallucinations, vomiting, tremors, anxiety, dizziness, confusion, or loss of consciousness. In fact, the FDA received 104 reports of adverse events in patients who consumed D8-THC between 12/01/20 and 02/28/22 alone. Of these¹:

- 77% involved adults, 8% involved pediatric patients less than 18 years of age, and 15% did not report age.
- 55% required intervention (e.g., evaluation by emergency medical services) or hospital admission.
- 66% described adverse events after ingestion of Delta-8 THC-containing food products (e.g., brownies, gummies).

D8-THC and D10-THC are found in very small amounts in hemp such that the conversion of other cannabinoids to D8-THC and D10-THC often involves use of potentially harmful chemicals.

Because D8-THC and D10-THC are available online and at brick-and-mortar establishments, it is easy for them to fall into the hands of children and minors and pose a risk to pets.

For all these reasons, the Medical Cannabis Institute recommends only obtaining and consuming regulated Delta-9 THC from state-sponsored medical or recreational cannabis programs.

¹<https://www.fda.gov/consumers/consumer-updates/5-things-know-about-delta-8-tetrahydrocannabinol-delta-8-thc>