



What is the biphasic effect of cannabis?

When a drug has biphasic effects, it means that low and high doses of the drug can have very different effects. A primary example of a biphasic effect of a drug is alcohol. When consumed in smaller quantities it may make a person happy and sociable while at higher doses it may cause them to feel sad or angry. This biphasic effect is also true for two of the major chemicals in the cannabis plant—THC and CBD.

For example, low doses of THC may make a person feel relaxed and less anxious and improve their memory and cognition, while high doses can significantly increase anxiety and can impair memory and cognition. Similarly, in lower doses, CBD can increase alertness and reduce anxiety, while at higher doses it can be quite sedating. Therefore, it may be best to use lower doses of CBD during the day and higher doses before bed.

The biphasic effect of cannabis is a major reason why it is better to start with low doses of edibles or tinctures (1-2 mg of CBD and/or THC) and to increase the dose slowly so as not to overdo it with the dose and cause unwanted anxiety or intoxication. In addition, smoking and vaping are potentially problematic because they often deliver higher doses than are needed or wanted. Due to the beneficial effects of low doses of THC and CBD (positive mood, less anxiety, and reduced pain), many individuals choose to microdose these chemicals which means taking low doses throughout the day rather than larger doses a few times per day.