

What you need to know about cannabis and suppositories

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Suppositories are becoming a popular method of cannabis administration. The purpose of this article is not to state that suppositories are ineffective for treatment of some diseases. Rather, it is intended to clarify some of the misconceptions around the research and to highlight some of the risks and benefits of using suppositories. I hope this information allows patients to make an informed decision about the right delivery method for their condition.

Absorption of rectal medications can be affected by many factors, such as molecular size, water-solubility, depth of insertion, dehydration, low surface area and the base of a suppository preparation. It is also important to note that absorption rates from suppositories are slower and the rate at which they absorb is largely dependent on the additive in the suppository.



The most commonly referenced research states that rectal absorption rates of cannabis are 50-70%. It is worth noting that the [study](#) used delta-9-THC with an [ester](#) (a chemical compound) hemisuccinate which is an additive designed to increase absorbency by breaking down fat soluble compounds into water soluble compounds.

Subsequent [studies](#) done on rectal absorption of cannabis demonstrated that without hemisuccinate, rectal absorbency was 3% or less. Clearly home preparations of cannabis suppositories do not contain hemisuccinate therefore it is safe to assume that most home preparations are not being absorbed

Cannabis can enter the body through rectal administrations. During rectal administration, fluids are absorbed by the rectum's blood vessels and are mostly directed into the body's circulatory system, which distributes the fluid to the organs and bodily systems. Typically, a drug that is administered rectally has a faster onset, a higher bioavailability, a shorter peak, and a shorter duration than when the same drug is administered orally.

This route of administration partially bypasses first-pass metabolism. The rectum's venous drainage is two thirds systemic (consisting of the middle and the inferior rectal vein) and one third hepatic (the superior rectal vein). Drugs administered rectally typically reach the circulatory system or blood stream with significantly less hepatic alteration.

Currently, there is some debate about whether rectally administered cannabis can effectively treat conditions that affect the entire body. There exists some agreement that fats and oils are poorly absorbed from the rectum—with one source citing that as little as 3% of any oil can be rectally absorbed. Cannabinoids are lipids (fats) and cannabis products are nearly always extracted into an oil or fat base, so it reasonable to assume that whole plant cannabis oil products are poorly absorbed rectally.

Some medical practitioners and cannabis manufactures suggest that rectal administration is advantageous because patients can take larger doses while avoiding psychoactivity. However, cannabinoids absorbed through the rectum should flow into the circulatory system (blood stream) through one of two possible routes:

- Pass into the middle and the inferior rectal veins and eventually flow into the circulatory system.
- Pass into the superior rectal vein and through the liver circulation (where they are metabolized by enzymatic processes) and eventually flow into the circulatory system.



In both routes, there should be detectable levels of THC in the plasma and those levels should correspond to a discernable psychoactivity. The reason no psychoactivity is reported is that the cannabinoids have not been adequately absorbed into the bloodstream. Patients who use high THC products through rectal administration and who fail to feel any psychoactive side effects are likely not improving any systemic issues. Additionally, [research](#) has shown that rectal absorption is often incomplete, unpredictable and erratic.

Yet people are reporting that they've successfully treated their conditions, such as cancer with cannabis suppositories. There may be other factors to consider to consider in such cases. Often cannabis is not the only treatment that people are using. Maybe it is a multitude of treatments or maybe we need to rethink dosing. If absorption rates of rectal cannabinoids are low and most people report using large doses rectally, then perhaps low dose is more effective than we think. Or maybe it's the quality of the medicine or the terpene profile. Clearly, more research is needed. Currently, Green Health has found that rectal administration appears to be effective for conditions that can benefit from a topical cannabis administration, such as fissures, hemorrhoids, and rectal cancer. If someone is undergoing chemotherapy, rectal administration is often contraindicated because of the increased risk of infection, as well as rectal bleeding. Please consult with your health care practitioner before starting rectal administration.

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