

An Overview of Medications Interacting with Cannabis-

As per a Drug Interaction Table [1], created by the Indiana University Department of Medicine, drugs that may generally interact with cannabis due to its impact on a specific liver enzyme include:

- Steroids
- HMG CoA reductase inhibitors
- Calcium channel blockers
- Antihistamines
- Prokinetics
- HIV antivirals
- Immune modulators
- Benzodiazepines
- Antiarrhythmics
- Antibiotics
- Anesthetics
- Antipsychotics
- Antidepressants
- Anti-epileptics
- Beta-blockers
- PPIs
- NSAIDs
- Angiotensin II blockers
- Oral hypoglycemic agents
- Sulfonylureas
- Statins

Heart & cardiovascular medications

Cannabis can potentially interact with many heart medications, like statins (cholesterol-reducing medications) and beta-blockers (or β -blockers, used to treat abnormal heart rhythms and often administered after heart attacks).

With beta-blockers, the reason for its interaction is that cannabis has been found to possess blood-pressure reducing properties. This interferes with the work of β -blockers on our body.

Cannabis, when ingested or inhaled, keeps some of the body's systems busy to help it reach the bloodstream, thus obstructing the cholesterol medications from doing their job. This leads to these medications being stored in the body for a longer period that can prove dangerous to the patient.

Some examples of heart medications that can interact with cannabis is:

- Pravastatin (Pravachol)
- Ticagrelor (Brilinta)
- Atorvastatin (Lipitor)
- Nifedipine (Adalat, Procardia)
- Celiprolol (Celicard)
- Quinidine
- Talinoloa
- Clopidogrel (Plavix)
- Carvedilol (Coreg)
- Amiodarone (Cordarone)
- Valsartan (Diovan)

Blood pressure medications (calcium channel blockers)

As mentioned earlier, medications used to treat blood pressure and abnormal heart rhythms, like calcium channel blockers and blood thinners, like warfarin, can be profoundly impacted by cannabis's presence in your system.

Even if some medications that don't have these as their intended effects, but are listed as having these as possible side effects, like in the case of painkiller ibuprofen, there is a chance that they can have the same adverse effects on the body on interaction with cannabis or other such plant cannabinoids.

This was proven in a study, published in the journal *Epilepsy & Behavior Case Reports* in 2017 [2] by some researchers at the University of Alabama at Birmingham, United States.

By reducing the body's capacity to break down blood thinners, cannabis ultimately increases their effects and duration, as they remain in the body for a much longer period. In effect, this process leads to the risk of bleeding.

Similar medications that may interact with cannabis:

- Verapamil (Calan, Isoptin, Verelan)
- Diltiazem (Cardizem)
- Isradipine (DynaCirc)
- Torsemide (Demadex)
- Felodipine (Plendil)

- Amlodipine (Norvasc)

Sedatives & antidepressants

Although not all antidepressants interact with cannabis, the effects of benzodiazepines (or 'benzos') that are often used for treating anxiety, depression, insomnia, panic attacks, and nausea, may be enhanced or even intensified due to the presence of cannabis in the system.

Not only does cannabis tend to slow down their activity, leading to these medications remaining in the bloodstream for a longer period, but cannabinoids, like CBD and THC, also have certain sedative-like properties [3].

This is especially true for benzodiazepines, such as alprazolam (Xanax) and diazepam (Valium).

Although this may not be fatal, their interaction may lead to certain complications. So far, research on the extent of their potential additive effects leaves much to be desired.

Another anti-anxiety medication Buspirone (BuSpar) that is used to treat generalized anxiety disorder and often prescribed alongside other antidepressants is also not advisable to take with cannabis. This medication, like many other drugs, requires the same liver enzyme that is engaged by cannabis to break down in the stomach. Yet another antidepressant that has a high probability of interacting with CBD is Clomipramine (Anafranil).

Some common benzodiazepines that may interact with cannabis:

- Alprazolam (Xanax)
- Diazepam (Valium)
- Triazolam (Halcion)
- Pravastatin (Pravachol)
- Quazepam (Doral)
- Midazolam (Versed)
- Triazolam (Halcion)

Antibiotics

A group of antibiotics, known as fluoroquinolones, which are often used to treat respiratory and urinary tract infections, has a high risk of interacting with cannabis. They include:

- Ciprofloxacin (Cipro)
- Levofloxacin (Levaquin)
- Gemifloxacin (Factive)
- Norfloxacin (Noroxin)
- Moxifloxacin (Avelox)
- Ofloxacin (Floxin)

Chemotherapy

Cannabis has also been found to interact with several chemotherapy drugs. Like in case of most other drugs, cannabis inhibits the body's ability to process these drugs, often leading to a toxic buildup in the bloodstream.

Some common chemotherapy drugs that strongly interact with cannabis are:

- Etoposide (VePesid, Eposin, Etopophos)
- Methotrexate
- Paclitaxel (Taxol)

Although cannabis does alleviate pain associated with cancer and THC inhibits growth and multiplication of cancer cells, if it is taken along with chemotherapy treatment, the type and dosage of the cancer medication used must be adjusted taking the use of medical cannabis into account.

Some more medications that may interact with cannabis are...

- Lovastatin (Mevacor) [Cholesterol treatment]
- Ketoconazole (Nizoral) & Itraconazole (Sporanox) [Antifungal medications]
- Trogliptazone and Methylprednisolone [Anti-inflammatory drug]
- Fexofenadine (Allegra) & Terfenadine (Seldane) [Anti-histamines]
- Simvastatin (Zocor) [Cholesterol and lipid-lowering medication]
- Artemether (Artenam, Paluther) & Halofantrine [Malaria medications]
- Viagra (Sildenafil)

Grapefruit & Cannabis: Similarities in Interactions

Anyone who would have looked up drug interactions and cannabis would have come across a comparison between these cannabinoids and grapefruit or grapefruit juice. It may seem uncanny to you, but the fact is that they both work in a similar fashion.

Grapefruit or its juice inhibit the CYP450 enzymes from processing the pharmaceutical drugs first. This is why any drug whose effects are inhibited by grapefruit is often unwise to take along with Cannabis.

Some of the common drugs that interact with grapefruit [5] and its extracts are:

- alprazolam
- amiodarone
- atorvastatin
- carbamazepine
- cilostazol
- clarithromycin
- colchicine

- dronedarone
- erythromycin
- felodipine
- fentanyl

TIP: In case you're wondering if cannabis will interact with your current medication, look for the warning that tells you to avoid grapefruit on the medicine package. This is an indication that CBD could also interfere with your prescription drugs.

Research citations:

1. Drug Interactions Flockhart Table™; Indiana University School of Medicine; Department of Medicine Clinical Pharmacology; <https://drug-interactions.medicine.iu.edu/Main-Table.aspx>
2. An interaction between warfarin and cannabidiol, a case report;

Epilepsy & Behavior Case Reports; Oct 12, 2017; Leslie Grayson, Brannon Vines, Kate Nichol, Jerzy P Szaflarski, and for the UAB CBD Program; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5789126/>

3. Cannabidiol in Anxiety and Sleep: A Large Case Series; Permanente Journal; Jan 7, 2019; Scott Shannon, MD, Nicole Lewis, ND, Heather Lee, PA-C, and Shannon Hughes, PhD; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6326553/>
4. Cannabidiol–antiepileptic drug comparisons and interactions in experimentally induced seizures in rats; Journal of Pharmacology and Experimental Therapeutics; April 1977; Consroe P, Wolkin A; <https://www.ncbi.nlm.nih.gov/pubmed/850145>
5. Drug Interactions with Grapefruit Juice; Medically reviewed by L. Anderson, PharmD Last updated on Feb 13, 2018; <https://www.drugs.com/article/grapefruit-drug-interactions.html>