



## **PATIENT GUIDE TO MEDICAL CANNABIS**

## TABLE OF CONTENTS

About Us.....	3
Our Process.....	5
The Endocannabinoid System (ECS).....	8
Potential Uses for Using Medical Cannabis.....	9
Strain Types and Therapeutic Effects.....	10
Dosing and Administration.....	12
Dispensary Vs. Health Canada Licensed Producer.....	15
Potential Side Effects.....	16
Tapering Medications.....	17
Cannabis in the Workplace.....	18
Driving and Cannabis.....	18

## **ABOUT US**

The Greenleaf Medical Clinic is a pioneer in the medical cannabis industry and is a specialty clinic that assesses patients in Canada for the appropriateness of using medical cannabis to treat their symptoms.

Since we were founded in 2011, we have been both educators and students. We would not know what we know today about cannabinoid therapy without working with thousands of patients and cultivators.

We are patients and health care providers that together, we are "Changing Medicine and Changing Lives".

## **EXECUTIVE MANAGEMENT TEAM**

### **Dr. Caroline MacCallum, Medical Director**

FRCPC (Internal medicine), BSc Pharmacy  
Clinical Instructor, Faculty of Medicine, UBC  
Special Interest in Complex Pain and Cannabinoid Medicine  
Internist, VGH Department of Hematology/BMT & UBC Hospital

Dr. MacCallum completed her undergraduate degree in pharmacy and medicine at Memorial University of Newfoundland, where she was born and raised. She graduated from the University of British Columbia Internal Medicine Residency Program in 2013. Upon graduation, she practiced pain & addiction medicine at Vancouver General Hospital and Heartwood Addiction Program at BC Women's Hospital. In addition, she also practiced complex pain medicine at the CHANGEpain Clinic and BC Women's Complex Chronic Disease Program.

Currently she is a clinical instructor in the UBC Department of Medicine, where she provides inpatient care on the Internal Medicine Ward at UBC Hospital, and Bone Marrow Transplant Ward at VGH. She is also a guest lecturer and preceptor for UBC Faculty of Pharmaceutical Sciences Program.

Dr. MacCallum has a passion for cannabis education and curriculum. She has done a number of CME presentations and preceptorships for physicians, pharmacists, nurses and other allied healthcare professionals.

Her research interest includes: cannabis to help taper prescription medications to reduce overall polypharmacy burden; cannabis in complex diseases; cannabis impairment and cannabis use in the workplace.

### **Fonda Betts, Owner and CEO**

Fonda Betts is the Founder and CEO of the Greenleaf Medical Clinic and has been educating patients on the use of cannabis since starting the clinic in 2011. She has extensive knowledge in cannabinoids in clinical practice from the University of Toronto, Faculty of Medicine.

Her passion for Health and Wellness includes studying herbal medicine, teaching yoga and working one-on-one with patients to ensure that their symptoms are improving with using medical cannabis.

## **OUR PROCESS**

We are a private clinic that charges patients an annual membership fee to cover our office staff and cannabis educators, who are not paid for by the public healthcare system.

## **OUR MEMBERSHIP**

Our membership fee is based on a sliding scale that is determined by your annual income.

If you earn less than \$30,000 annually, you will qualify for compassionate pricing for your cannabis purchases from a Health Canada's Licensed Producers.

Additionally, you can use your Greenleaf receipt as a medical expense on your taxes.

## **GLMC MEMBERSHIP FEE**

Income (Annual)	Cost	Referral
\$15 K Plus	\$99 Bi-Annually	
Less than \$15 K	\$49 Bi-Annually	Yes
Less than \$15 K	\$99 Bi-Annually	No

The Greenleaf membership includes the following:

- Cannabis Counselling
- Customized Medical Cannabis Plan
- Group Classes

## **CUSTOMIZED MEDICAL CANNABIS PLAN**

45 - 60 MINUTES IN DURATION

Prior to being assessment by one of our physician's, you will meet with one of our Medical Cannabis Educator's. The role of the educator is to work with you to create your customized Medical Cannabis Plan that is designed to ensure that you will get relief from your symptoms/indications for using cannabis. i.e, anxiety, depression, chronic pain, fatigue, seizure disorders, insomnia and many other symptoms that we will discuss later.

Our educator will discuss the following;

### ***Cannabis Counselling***

- Endocannabinoid System (ECS)
- Differences between major cannabinoids; tetrahydrocannabinol (THC) and cannabidiol (CBD)
- Strain types; sativas, indicas and hybrids
- Differences in medical effects between strain types
- Modes of administration and duration of action; vaporization (inhalation), oral (mouth), or topical
- When to medicate
- How to safely dose your medication
- Risk & side effects: adverse reactions, cannabis in the workplace, driving.

Additionally, your Cannabis Educator will work with you to create a tailored cannabis plan that is specific to you and your symptoms. You will receive;

### ***Customized Medical Cannabis Plan***

- Detailed instructions on what medication to order from your chosen Health Canada Licensed Producer.
- Detailed dosing schedule on how to safely and effectively dose cannabis medication
- Assistance with your Licensed Producer registration paperwork
- Instructions and a tutorial on how to vaporize your medical cannabis
- A dosing log that you can use to track your process.

## **GROUP CLASSES**

The Greenleaf membership includes access to the following group classes;

### **Therapeutic Yoga for Chronic Pain**

This program uses principles of pain science to help patients learn to move safely. Patients will practice gentle exercise sequences that are designed to reduce fear in the body, create internal safety signals, while at the same time improving health, balance and flexibility.

### **Pain Sciences**

This program will introduce major principles on how pain works, why flare-ups happen and how stress, relaxation, exercise and even thoughts and emotions can change the way we experience pain. This program will integrate components of cognitive therapy, mindfulness, pacing, exercise and communication skills to help patients understand their pain and start to change it.

### **Meditation and Relaxation**

Patients learn how their bodies stress response can generate pain and practice using tools to decrease the stress response and improve relaxation skills. This program will introduce several different relaxation and meditation techniques including; mindfulness, various breathing techniques and body scans and imagery.

### **Cannabis 101**

This program provides education on the endocannabinoid system, differences between strain types, THC and CBD, modes of administration and access through a Licensed Producer. For patients interested in cultivating their own cannabis, you will learn guiding principles of cultivation and how to make your own cannabis products.

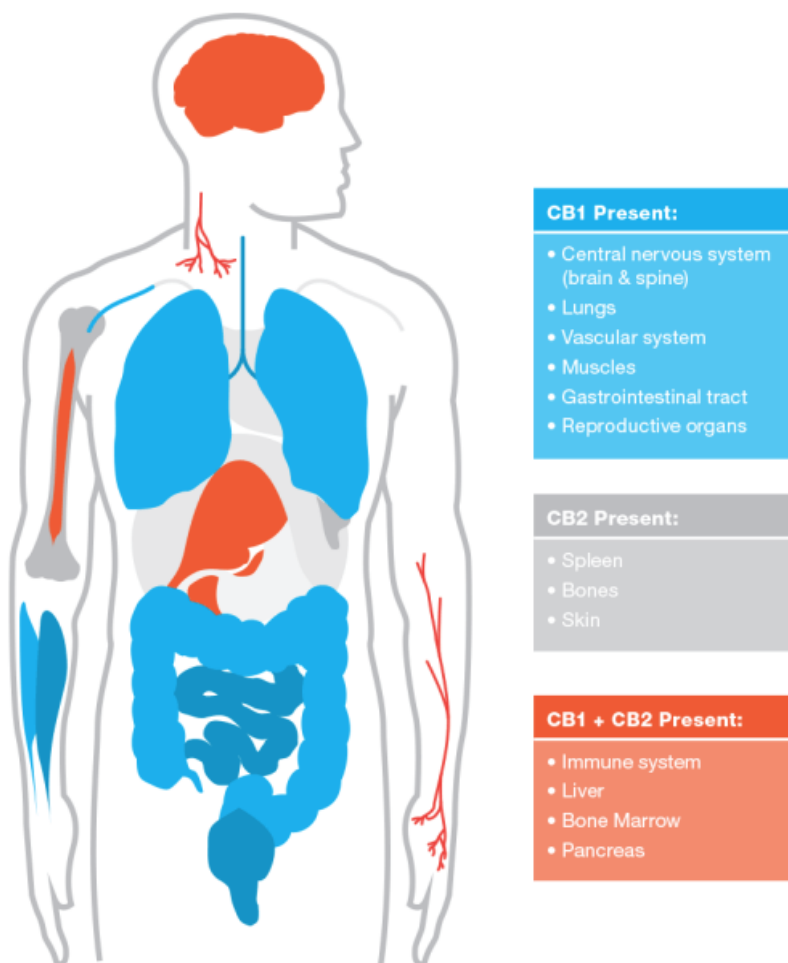
For a complete list of classes with upcoming dates and time, visit Greenleaf Groups and register early.

# THE ENDOCANNABINOID SYSTEM (ECS)

## Three types Cannabinoids

1. *Phytocannabinoids* - derived from the cannabis plant. THC and CBD are the major cannabinoids in cannabis.
2. *Endocannabinoids* - these are cannabinoids created by the body and work on the Endocannabinoid System (ECS), which is a lipid (fat) signaling system influencing many body processes. Cannabinoids work on two major receptors CB1 and CB2.
3. *Synthetic cannabinoids* - these are cannabinoids created in the laboratory.

Location of CB1 and CB2 receptors in the human body



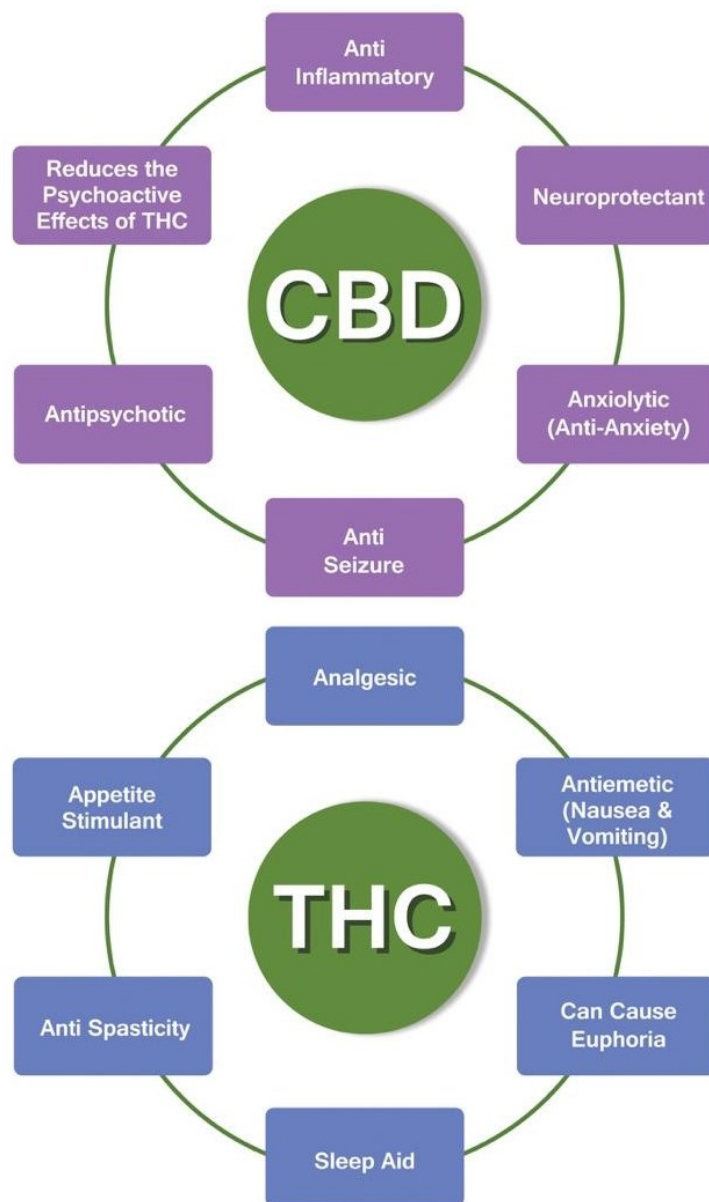
## POTENTIAL USES FOR MEDICAL CANNABIS



Aids/HIV	ALS	Autism
Anxiety	Appetite	Arthritis
Burning Feet Syndrome	Burning Mouth Syndrome	Cancer
Chronic Pain	Crohn's Disease	Degenerative Disc Disease
Depression	Diabetic Nerve Pain	Dementia
Endometriosis	Epilepsy	Fatigue
Fibromyalgia	Glaucoma	Headaches
Huntington's Disease	Irritable Bowel Syndrome	Libido
Lupus	Lyme Disease	Menopause
Menstrual Cramps	Migraines	Multiple Sclerosis
Muscle Spasms	Nausea	Obsessive Compulsive Disorder
Parkinsons	Pelvic Pain	PTSD
Restless Leg Syndrome	Seizures	Sleeping Disorders
Spinal Cord Injury	Tremors	Tourette's Syndrome
Ulcerative Colitis	Vomiting	Withdrawal Symptoms

The above list is not conclusive of all the symptoms/conditions that medical cannabis can be used for. If you do not see your symptom noted above, please contact Greenleaf toll free at 1-877-513-4769 and we will ask one of our physicians.

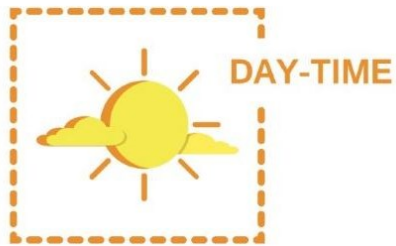
## **STRAIN TYPES AND THERAPEUTIC BENEFITS**



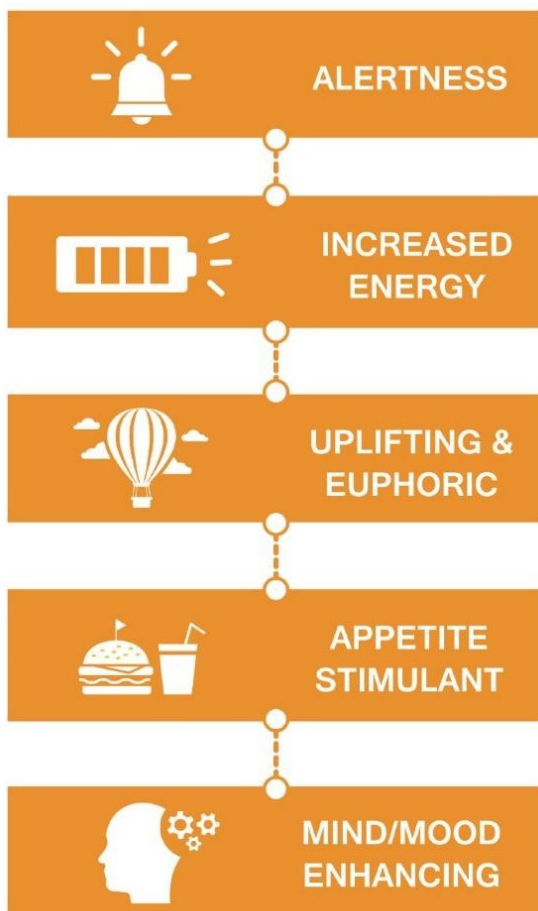
There are separate dried plant and oil products available such as THC only, CBD only or THC/CBD combination depending on your needs.

THC and CBD (and other cannabinoids and terpenes) in the plant can work together to create the “*entourage effect*”.

## SATIVA



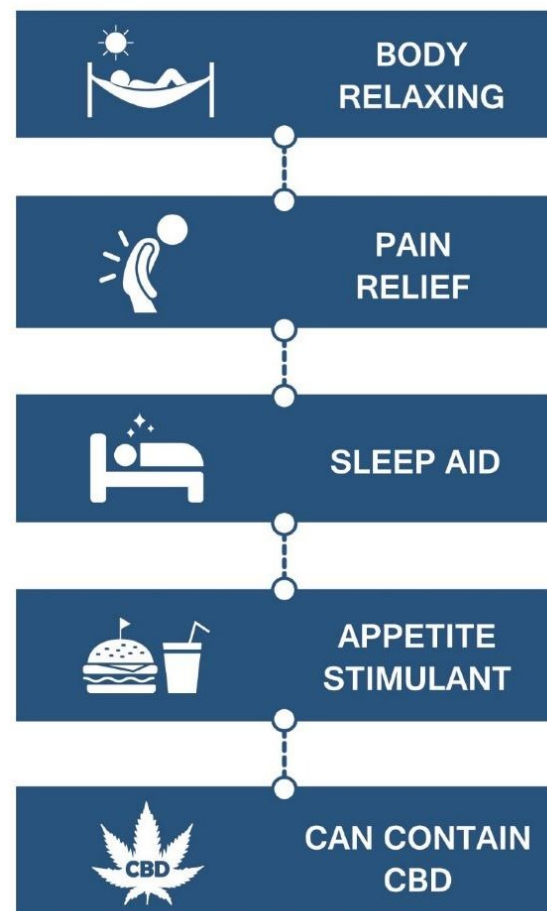
Sativa strains are almost exclusively THC dominant and do not contain CBD.



## INDICA



Indica strains can contain CBD. Strain varieties can be CBD only, THC only or a combination of both THC and CBD.



**Hybrids** - Additionally, there are also Hybrid strains. Hybrids are created by breeding two strains of cannabis where one or the other is either a Sativa or Indica. These strains are either equally balanced between an indica and sativa or are indica or sativa dominant.

## **DOSING AND ADMINISTRATION**

Dosing of medical cannabis is varies person to person, and we encourage “start low and going slow.”

Finding the right dose means benefits are maximized and side effects are minimized. Our physicians and counsellors can help you titrate to your optimal dose. You do not need to experience euphoria/impaired/ “high” to achieve symptom relief.

### **MODES OF ADMINISTRATION**

	<b>Vaporizing</b>	<b>Oral</b>
<b>Onset (min)</b>	<b>10</b>	<b>60-120</b>
<b>Duration (h)</b>	<b>2-3</b>	<b>6-8</b>
<b>Odor</b>	<b>+++</b>	<b>+</b>

### **VAPORIZATION**

Vaporizing cannabis is not the same chemical process as smoking cannabis. Vaporizing is a more effective, cost saving and safer alternative to smoking cannabis and provides the same therapeutic effect while reducing exposure to harmful compounds resulting from the burning of the plant matter. Vaporizers are approved by Health Canada as medical devices.

#### **The basics:**

- Portable models can make on-the-go doing very convenient and discreet.
- Many vaporizers offer the ability to change the set temperatures, which can impact the amount of bioactive cannabinoids that are present in the vapor.
- Vaporization can be used for symptom relief on its own or with cannabis oil.
- Most vaporizers hold between 0.2 to 0.3 grams of dried cannabis.

## **ORAL INGESTION**

Cannabis oil is designed to be swallowed (ingestion). You can use in conjunction with vaporization.

### **The basics:**

- Carrier oils - most Licensed Producers use MCT (coconut oil) as a base. However, product is also available in grape seed, sunflower and olive oil. Please ensure you do not have an intolerance to the oil.
- The oil is taken orally by mouth in either liquid form, capsule form or as a sublingual mist.
- Long acting - compared to vaporization, cannabis oil is long acting. Wait at least six to eight hours after the first dose before taking a second dose of cannabis oil.
- If there are no measurement markings on the syringe or the starting measurement is greater than 0.10 ml, you will need to go to your local drug store and ask the pharmacist for a calibrated oral syringe with measurements from 0.10 ml to 1.0 ml.

### **DOSING LOG**

It is very important to track the effects of using medical cannabis to ensure that your symptoms are improving.

Medical cannabis is a customized treatment option and it takes trial and error to achieve your optimal dose. Your dosing log will provide your physician valuable information at future follow-up appointments. A sample dosing log is shown on the next page.

{INSERT SAMPLE LOG PAGE IN LANDSCAPE}

## DISPENSARY VS. HEALTH CANADA LICENSED PRODUCER

There are important difference between dispensaries/compassion clubs and licensed producers. Dispensaries are not a current legal supply option in Canada. The only legal supply option in Canada is purchasing your medication from a Health Canada approved Licensed Producer. At Greenleaf Medical Clinic we only work with Health Canada approved, legal cannabis sold by licensed producers.

The Federal Government will legalize recreational cannabis on July 1, 2018 and will include a regulatory framework that will be determined by each province. Until that time, it is advised to purchase your medical cannabis from one of the Federally Licensed Producers.

For safety reasons, the product will be shipped directly to your residence by mail order. When you work with a Greenleaf Cannabis Educator, your symptoms will be profiled to strains from a Licensed Producer.

Know Your Medicine	Dispensary	Licensed Producer
Regulated	×	✓
Legal	×	✓
Medical Card	✓	✓
Testing For Microbial And Chemical Contaminants	×	✓
Consistency Of THC & CBD %	×	✓
Authorized By MD	×	✓
Onsite Distribution	✓	×
Legal To Travel Within Canada	×	✓
Medical Expense On Taxes	×	✓

## POTENTIAL SIDE EFFECTS OF THC

Most side effects are caused by increasing the dose of THC too quickly, which can cause intoxication. This does not happen with CBD.

	Most common	Common	Rare
Sedation / Fatigue	✓		
Dizziness	✓		
Drowsiness	✓		
Dry Mouth	✓		
Euphoria		✓	
Blurred Vision		✓	
Headache		✓	
Low Blood Pressure		✓	
Vasodilation		✓	
Anxiety			✓
Paranoia / Psychosis			✓
Depression			✓
Balance / Coordination			✓
Cognitive Effects			✓
Tachycardia			✓
Heart Palpitations			✓
Nausea			✓
Diarrhea			✓

*\*If smoked - Respiratory effects such as bronchitis, COPD, lung infection.*



## **How to Avoid Side Effects**

When you work with a Greenleaf cannabis educator, their goal is to ensure that you have a positive experience using cannabis and are getting optimal relief from your symptoms.

Patients are started on a low dose of cannabinoids (THC and/or CBD) and are guided on how to safely self-titrate (increase or decrease) their cannabis medication to reach their optimal dose. The optimal dose is the dose that provides the most amount of benefit with no side effects.

If you experience side effects, reduced your dose to the previous well tolerated dose and the side effects should subside.

## **DRUG INTERACTIONS**

There may be drug interactions with cannabis and some medications. Our physicians will review your medication list to discuss any potential interactions and adverse effects.

There can be additive sedation/euphoria when taking cannabis with opioids/narcotic, other pain medications, sleep medication, anxiety/depression (and other psychiatric medications) medications and/or alcohol.

If you experience side effects call our office.

## **TAPERING MEDICATIONS**

Some patients are eager to reduce (taper) their medications as soon as they start taking cannabis. Prior to tapering your medications, ensure that you have first stabilized on cannabis (know your optimal dose) and only taper one medication at a time with the guidance of your physician.

If you start to reduce your medications prior to cannabis stabilization and experience side effects, then it becomes a challenge for your doctor to determine if the side effects are caused from the cannabis or are caused from the reduction of your other medications.

Once you have stabilized on cannabis (when symptoms are well controlled and no side effects), consult your doctor to discuss reducing medications. It usually takes 2 months to stabilize on your cannabis regimen.

If your doctor is not sure what medications should be tapered first or has questions, your doctor's office can contact Greenleaf and schedule a phone call with our Medical Director.

## **CANNABIS IN THE WORKPLACE**

If you are in a safety sensitive occupation avoid using THC while at work as there is potential for impairment.

### **CBD does not cause euphoria.**

Employers may need to have policies in place permitting the prescribed medical use of cannabis in the workplace either as an “accepted” result of a random drug test, or as a form of accommodation. When an employee claims a medical need for cannabis, the request should be treated in the same manner as any other request for medical accommodation. When making accommodations, as with any prescription, employers have the right to prohibit impairment on the job, particularly in safety-sensitive positions.

The recreational use of cannabis may be treated in the same way as the use of alcohol under an organization's alcohol and drug policy. Employers have the right to prohibit the use of cannabis during work hours, and to prohibit working while impaired.

## **DRIVING AND CANNABIS**

Studies have indicated that the use of THC cannabis can impact your reaction time, visual function, concentration, divided attention, following distance and speed while driving.

***BOTTOM LINE: If you feel impaired, you should not drive.***

The police may impose a roadside suspension to any driver that is deemed impaired or unsafe to drive based on the officer's judgment. This may also apply to other substances or prescription drugs (ie opioids, benzodiazepines, muscle relaxants etc.)

if they impair your judgment / coordination while driving.

CBD cannabis is non intoxicating and may be a better option for circumstances requiring high cognitive function.

## **TRAVELING WITH CANNABIS**

**Never** take cannabis outside of Canada, including to the US.

You can legally travel within Canada with up to a 30-day supply of your medical cannabis, up to a maximum of 150 grams.

If flying, keep cannabis in your carry-on, not in your checked luggage. Make sure it is in the original packaging containing your prescription label. Bring your medical cannabis documentation/card.

### **Tips for Patients**

There are lots of ways patients can be smart about storing and using their medicine. Keep in mind this quick list of don'ts, and you'll have no problems!

- Take your medication through vaping or oral preparations.
- Only medicate in private.
- Never medicate near children.
- Do not share your medicine with others
- Do not drive if you are impaired in any way. Make sure you know how your medicine affects you before you attempt to drive or operate machinery.
- Keep your medicine in a secure, locked location. Keep out of reach of children and pets!
- Store your medicine in a cool, dry place like a locked cupboard.