

Kannaboost Technology, Inc
Dispensary License #000000118DCKD00426097

DBA

Patient Handbook

Draft Dated Effective November 1, 2020



SOL FLOWER

Live with Sol

2424 W. University Dr.
Tempe, AZ 85281
(480) 664 2017



SUN CITY

13650 N. 99th Ave.
Sun City, Arizona 85351
(623) 246 8080

TEMPE

1322 N. McClintock Dr.
Tempe, Arizona 85281
(480) 795-6363

SCOTTSDALE

14980 N. 78th Way.
Scottsdale, Arizona 85260
(480) 420-3300

TEMPE

2424 W. University Dr.
Tempe, Arizona 85281
(480) 664-2017

**JOIN US AT ANY OF
OUR FOUR LOCATIONS!**

Visit livewithsol.com for updates on
delivery hours and areas.

Date: _____ Product: _____ Name/Strain: _____
Pain level/condition before consumption: _____

Flower Edible Concentrate Other
Type: Sativa Indica Hybrid
Potency (mg or %): THC ___ CBD ___

Method: Smoke Vaporize Edible Sublingual Capsule

Device: _____ Dose: _____
Intentions: _____

Experience:
Time Consumed: _____ Onset Time: _____
Duration: _____ Strength: 1 2 3 4 5

Consume Again: Yes / No

Side Effects:
 Dry Mouth Paranoia Psychedelic Munchies
 Depression Fogginess Heaviness Too Stimulating
 Forgetfulness Anxiety Other:

How bad is your: pain, cachexia or wasting
syndrome, nausea, seizures, muscle spasms, and agitation;

1 2 3 4 5 6 7 8 9 10

Date: _____ Product: _____ Name/Strain: _____
Pain level/condition before consumption: _____

Flower Edible Concentrate Other
Type: Sativa Indica Hybrid
Potency (mg or %): THC ___ CBD ___

Method: Smoke Vaporize Edible Sublingual Capsule

Device: _____ Dose: _____
Intentions: _____

Experience:
Time Consumed: _____ Onset Time: _____
Duration: _____ Strength: 1 2 3 4 5

Consume Again: Yes / No

Side Effects:
 Dry Mouth Paranoia Psychedelic Munchies
 Depression Fogginess Heaviness Too Stimulating
 Forgetfulness Anxiety Other:

How bad is your: pain, cachexia or wasting
syndrome, nausea, seizures, muscle spasms, and agitation;

1 2 3 4 5 6 7 8 9 10



Date: _____ Product: _____ Name/Strain: _____
 Pain level/condition before consumption: _____

Flower Edible Concentrate Other
 Type: Sativa Indica Hybrid
 Potency (mg or %): THC _____ CBD _____

Method: Smoke Vaporize Edible Sublingual Capsule

Device: _____ Dose: _____
 Intentions: _____

Experience:
 Time Consumed: _____ Onset Time: _____
 Duration: _____ Strength: 1 2 3 4 5

Consume Again: Yes / No

Side Effects:
 Dry Mouth Paranoia Psychedelic Munchies
 Depression Fogginess Heaviness Too Stimulating
 Forgetfulness Anxiety Other:

How bad is your: pain, cachexia or wasting
 syndrome, nausea, seizures, muscle spasms, and agitation;
1 2 3 4 5 6 7 8 9 10

Date: _____ Product: _____ Name/Strain: _____
 Pain level/condition before consumption: _____

Flower Edible Concentrate Other
 Type: Sativa Indica Hybrid
 Potency (mg or %): THC _____ CBD _____

Method: Smoke Vaporize Edible Sublingual Capsule

Device: _____ Dose: _____
 Intentions: _____

Experience:
 Time Consumed: _____ Onset Time: _____
 Duration: _____ Strength: 1 2 3 4 5

Consume Again: Yes / No

Side Effects:
 Dry Mouth Paranoia Psychedelic Munchies
 Depression Fogginess Heaviness Too Stimulating
 Forgetfulness Anxiety Other:

How bad is your: pain, cachexia or wasting
 syndrome, nausea, seizures, muscle spasms, and agitation;
1 2 3 4 5 6 7 8 9 10

Table of Contents

Welcome to Sol Flower Wellness Center	4
Benefits and Risks of Using Medical Marijuana	5
Cannabis Sativa	
Cannabis Indica	
Hybrids	
Common Cannabis Names & Uses	7
Risks & Possible Side Effects	8
Reducing Risks Related to Consumption of Medical Cannabis	9
Dosing Medical Marijuana	11
Methods of Administration of Medical Marijuana	12
Inhalation & Smoking	
Orals, Edibles, & Teas	
Extractions, Tinctures, & Skin Preparations	
Side Effects & Contraindications of Using Medical Marijuana	14
Short-Term Mental Side Effects	
Short-Term Physical Side Effects	
Contraindications	
Effect on the Cardiovascular System	
Effect on the Gastrointestinal System	
Psychological Effects	
Signs and Symptoms of Substance Dependence & Abuse	16
Causes	
Helpful Hints and Information	
Medical Diagnosis of Substance Abuse and Dependence	18
Substance Abuse Criteria	
Substance Dependence Criteria	
Cannabis & Drug Interactions	20
Potential Prescription Drug Interactions	
Potential Non-Prescription Drug Interactions	
Potential Herb and Dietary Supplement Interactions	
Medical Alternatives To Cannabis	24
Testing regulations and the Certificate of Analysis (COA)	25
Glossary	26
Tracking & Discussing Effects of Use of Medical Marijuana	27



Welcome to Sol Flower Wellness Center

Thank you for being a Sol Flower dispensary patient. We look forward to earning your confidence and trust for years to come. The following are a few rules and Arizona laws that we remind you of and that you need to abide with by while you the dispensary.

- To enter the dispensary, you must be at least eighteen (18) years old and have a current Arizona state issued medical marijuana patient card and a government issued identification card. Our personnel will verify your medical card.
- Any person who is not a qualifying patient or caregiver, including minors are not permitted within the dispensing area.
- Parents or court appointed guardians must be registered caregivers to obtain medical marijuana products on behalf of legally qualified patients who are under 18 years of age.
- Only qualified service animals are allowed inside the premises.
- No weapons, alcohol or illegal drugs are permitted in or around the dispensary.
- Medical marijuana cannot be consumed within 500 feet of the dispensary.
- Consumption of medical marijuana products in public places or in your car is prohibited by law.
- Please be sure to store your medical marijuana products in safe place.
- Patients agree to not sell or distribute medical marijuana that is purchased with your card.
- There is no loitering allowed on the dispensary premises including the parking lot.
- For your safety, all medical marijuana products should remain sealed and out of reach of the driver and passengers until you arrive at your destination.
- Driving a vehicle and/or operating heavy machinery while impaired is strictly prohibited by law.
- We operate in cooperation with the Arizona Department of Health Services and local law enforcement.



Date: _____ Product: _____ Name/Strain: _____
 Pain level/condition before consumption: _____

Flower Edible Concentrate Other
 Type: Sativa Indica Hybrid
 Potency (mg or %): THC _____ CBD _____

Method: Smoke Vaporize Edible Sublingual Capsule

Device: _____ Dose: _____
 Intentions: _____

Experience:
 Time Consumed: _____ Onset Time: _____
 Duration: _____ Strength: 1 2 3 4 5

Consume Again: Yes / No

Side Effects:
 Dry Mouth Paranoia Psychedelic Munchies
 Depression Fogginess Heaviness Too Stimulating
 Forgetfulness Anxiety Other:

How bad is your: pain, cachexia or wasting syndrome, nausea, seizures, muscle spasms, and agitation;
1 2 3 4 5 6 7 8 9 10

Date: _____ Product: _____ Name/Strain: _____
 Pain level/condition before consumption: _____

Flower Edible Concentrate Other
 Type: Sativa Indica Hybrid
 Potency (mg or %): THC _____ CBD _____

Method: Smoke Vaporize Edible Sublingual Capsule

Device: _____ Dose: _____
 Intentions: _____

Experience:
 Time Consumed: _____ Onset Time: _____
 Duration: _____ Strength: 1 2 3 4 5

Consume Again: Yes / No

Side Effects:
 Dry Mouth Paranoia Psychedelic Munchies
 Depression Fogginess Heaviness Too Stimulating
 Forgetfulness Anxiety Other:

How bad is your: pain, cachexia or wasting syndrome, nausea, seizures, muscle spasms, and agitation;
1 2 3 4 5 6 7 8 9 10



Date: _____ Product: _____ Name/Strain: _____
 Pain level/condition before consumption: _____

Flower Edible Concentrate Other
 Type: Sativa Indica Hybrid
 Potency (mg or %): THC _____ CBD _____

Method: Smoke Vaporize Edible Sublingual Capsule

Device: _____ Dose: _____
 Intentions: _____

Experience:
 Time Consumed: _____ Onset Time: _____
 Duration: _____ Strength: 1 2 3 4 5

Consume Again: Yes / No

Side Effects:
 Dry Mouth Paranoia Psychedelic Munchies
 Depression Fogginess Heaviness Too Stimulating
 Forgetfulness Anxiety Other:

How bad is your: pain, cachexia or wasting syndrome, nausea, seizures, muscle spasms, and agitation;
1 2 3 4 5 6 7 8 9 10

Date: _____ Product: _____ Name/Strain: _____
 Pain level/condition before consumption: _____

Flower Edible Concentrate Other
 Type: Sativa Indica Hybrid
 Potency (mg or %): THC _____ CBD _____

Method: Smoke Vaporize Edible Sublingual Capsule

Device: _____ Dose: _____
 Intentions: _____

Experience:
 Time Consumed: _____ Onset Time: _____
 Duration: _____ Strength: 1 2 3 4 5

Consume Again: Yes / No

Side Effects:
 Dry Mouth Paranoia Psychedelic Munchies
 Depression Fogginess Heaviness Too Stimulating
 Forgetfulness Anxiety Other:

How bad is your: pain, cachexia or wasting syndrome, nausea, seizures, muscle spasms, and agitation;
1 2 3 4 5 6 7 8 9 10

Benefits and Risk of Using Medical Marijuana

Benefits

Medical Cannabis comes in two basic types: Sativa and Indica. Each type has its own distinct set of characteristics. The efficacy of cannabis is directly related to the strain that you select, therefore we recommend that you carefully select strains that meet your needs. Science is beginning to identify strains that are effective for sleep, pain, appetite, and energy, as well as for specific medical conditions and symptoms. We will plan to research medical science and report our findings back to our patients. We suggest that patients keep record of their own experience with dates at the time of medicating, strains used, dosage, and method of delivery to determine what works best for them (see section Tracking & Discussing Effects of Use of Medical Marijuana).

Cannabis Sativa

The sativa plant is a tall, slower growing and maturing plant characterized by long, thin leaves. Sativa buds, the part of the plant that contains the most medicine, grows in long, thin, spear like clusters and can be red or purple in color depending on the environment they grow in. The plants smell sweet and fruity and the smoke is generally mild.

The effect of sativa is often characterized as cerebral, uplifting, and energetic. It provides excellent pain relief for certain symptoms, (listed below), and gives a feeling of optimism and well-being. These benefits can be particularly helpful for the psychological component of many illnesses. Sativas are generally better used during the daytime hours. Patients have reported that Sativa provides the following medicating effects:

- Reduces nausea
- Reduces depression
- Relieves headache and migraine
- Reduces awareness of pain
- Stimulates appetite
- Energizes and stimulates
- Increases focus and creativity
- Supports immune system



Cannabis Indica

Different from Sativa, Indica plants are normally shorter and stockier, reaching between three and six feet tall. Their leaves are short, broad, and deeply serrated and sometimes tinged with a hint of purple. The flowers form in compact dense clusters. The Indica plant has a strong stinky or skunky smell and the smoke is generally heavy and can produce a coughing response. The medicating effect of Indica is predominantly physical, although the relief of certain physical symptoms can have positive emotional results as well. Indicas are characterized as relaxing, sedating, and pain reducing and are excellent at relieving stress. They produce an overall sense of calm and serenity and are very effective for overall body pain relief, allowing a patient to simply sit still. Indicas are generally best for later in the day and before bed. Patients have reported that Indica provides the following medicating effects:

- Reduces Pain
- Reduces Inflammation
- Relaxes Muscle Spasms
- Stimulates Appetite
- Aids Sleep
- Reduces Headaches and Migraines
- Reduces Intra-Ocular Pressure
- Anti-Convulsive Effects

Hybrids

Strain crosses, or hybrids, are the result of cross-pollination of various strains. The characteristics, and therefore the effects, of one strain will usually be dominant. For example, Indica-dominant crosses are good for pain relief, with the sativa component helping with energy, and activity levels. Sativa-dominant crosses are good for stimulating appetite, with the Indica component helps reduce body pain and increase relaxation.

Plant products from the Cannabis genes have been shown in historic record, as well as the medical literature, to have many medical benefits for a wide range of ailments. Arizona Proposition 203 acknowledges: Cancer, Glaucoma, AIDS/HIV positive, Hepatitis C, ALS (Lou Gehrig’s Disease), Crohn’s Disease, agitation of Alzheimer’s disease, Post Traumatic Stress Disorder (PTSD) or a medical condition of treatment that produces one or more of the following: Cachexia or Wasting Syndrome, Severe and Chronic Pain, Severe Nausea, Seizures, or Severe/Persistent Muscle Spasms, including those characteristic of Multiple Sclerosis. Medical Literature, as well as the legal statute of other states, acknowledges the Medical benefits of cannabis use in many other ailments. Arizona Prop 203 also allows for the petition and further recognition of additional ailments.

Above all, medical cannabis is known for its ability to help people cope with nausea and reduce appetite, pain and discomfort, muscle tension and spasms as well as provide a feeling and sense of overall well-being and comfort. The new cannabis studies that are starting to emerge along with changing laws and public opinion are very exciting for potential treatment advancements.

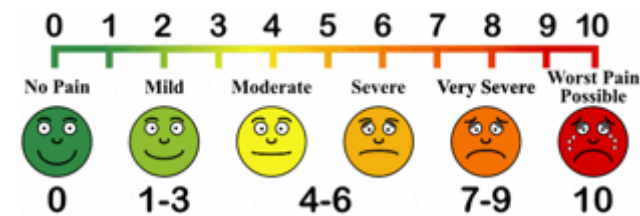
Tracking & Discussing Effects of Use of Medical Marijuana

The Medication Use Log is an important step in helping you and your referring physician determine the impact of different strains, consumption method, delivery systems and dosage amounts on your medical condition.

Please complete the Log each time after you medicate and include the type of product, the potency, the dose the method of consumption and how your symptoms are before and after you medicate. Please wait for at least 1 hour (1.5-2 hours for edibles) after medicating before filling out the Log to ensure an accurate assessment.

This log is a reference tool that you can use to record your experiences. It is also recommended that you share your log with your referring physician as a reference point to help determine the most effective treatment you.

Please contact us directly if you have any questions about how to use the log.





Testing Glossary

Analytes: a substance whose chemical constituents are being identified and measured.

Cannabinoids: any of a group of closely related compounds which include cannabinol and the active constituents of cannabis.

Heavy Metals: a metal of relatively high density, or of high relative atomic weight. Limit of Quantitation (LoQ) are terms used to describe the smallest concentration of a measure and that can be reliably measured by an analytical procedure.

Limit: is the amount allowed by law to be considered safe for consumption

Microbials: a microorganism, especially a bacterium causing disease or fermentation. E Coli and Salmonella fall in this category.

Mycotoxins: any toxic substance produced by a fungus. Only required for concentrates and concentrate inclusive products

NT: not tested, since they are not required for this specific product

PPM: parts per million

Pesticides: a substance used for destroying insects or other organisms harmful to cultivated plants or to animals.

Residual Solvents: as organic volatile chemicals that are used or produced in the manufacture of drug substances or excipients, or in the preparation of drug products. The solvents are not completely removed by practical manufacturing techniques.

Status: whether the product can be safely consumed. Pass or Fail

Terpenes: any of a large group of volatile unsaturated hydrocarbons found in the essential oils of plants, especially cannabis, conifers and citrus trees. These are not a mandatory requirement of testing law.



Common Cannabis Names and Uses

Sativa Dominant Strains

- Super Silver Cheese – energy, focus, creativity and may cause arousal.
- Jack Herer, Haze x (Northern Lights #5 Shiva Skunk) - neurological symptoms, chronic pain, migraine, anti-nausea. PTSD
- Strawberry Banana x Zkittles – 70/30 energy, focus and uplifting
- Super Silver Haze - Crohn's disease, neurological conditions
- Jenny Kush – 70/30 Stomach conditions, PTSD, and is uplifting yet relaxing
- Black Banana x GMO 55/45 Focus, energy and uplifting
- Durban Poison- Chronic fatigue, appetite suppressant, ADD, ADHD

Indica Dominant Strains

- Miss DNA – (Kosher Kush x Strawberry Banana) 60/40 chronic pain, inflammation
- DNA cake – 70/30 chronic pain, inflammation and anxiety
- Snack Pak – (Dos-Si-Do x OG # 18) balanced cerebral and body effect, trance-like great for aches and pains at the end of the day.
- Wedding Cake x Gelato (Ice Cream Cake by Seed Junky) stress, pain and insomnia
- Lemon OG - (Lemon Skunk x OG #18) 60/40 appetite and stress relief
- Kosher Dawg – (Star Dawg x Kosher Kush) 80/20 sedative, anxiety, chronic pain
- Gelato Sorbet – 70/30 Stomach conditions, nausea, spasms and inflammation
- 4 Prophets – (3X Crazy x Kosher Kush) clear headed yet relaxing, pain, tension, spasms and insomnia
- Skywalker Kush – (Skywalker x OG Kush) appetite, chronic pain, stress and anxiety
- Recon Kush – (LA Confidential x Cannadential) headache, nausea, arthritis and stress

CBD Strains

- Tora Bora- (Indica dominant hybrid) (LA Confidential x X18 Pure Pakistani) pain, spasms, insomnia and inflammation



Risks and Possible Side Effects of Medical Marijuana

The Arizona Department of Health Services points out that dangers of using cannabis while operating heavy machinery, caring for children, while on the job, and while driving. Other notable warnings patients should be aware of include:

- Women who are pregnant or breastfeeding should avoid using cannabis.
- New patients should avoid large doses as it is possible to feel anxiety and discomfort, even paranoia and hallucinations in extreme cases.
- Some patients report feeling sleepy after cannabis consumption.
- Cannabis can cause dry and red eyes as well as cottonmouth.
- Chronic smoking of cannabis may cause bronchitis or chronic cough.
- Patients may experience altered coordination and slower than normal response times.
- Some patients may be predisposed to addiction. Statistics suggest that about 9% of the population goes on to become addicted.
- Cannabis is a psychoactive substance. Cannabis use may affect a person's decision making skills and abilities.
- Individuals predisposed to mental emotional illness or suffering from mental illnesses such as schizophrenia may be at higher risk to cannabis induced mental and or emotional imbalances.
- While cannabis is medically legal in Arizona and adult recreational uses will soon be legal too, cannabis is still considered a class one substance and its possession or use is therefore illegal under federal laws. All patients should be aware that possession of cannabis is punishable at the federal level and has been prosecuted in the State of Arizona since medical use was legalized.



Testing regulations and the Certificate of Analysis (COA)

The Arizona Department of Health Services has implemented a testing regimen for all medical marijuana products sold after November 1, 2020. Product labeling requirements have been updated to require reporting of key results of the product testing. Standards have been established across a broad spectrum of tests to establish and maintain the quality and consistency of all products containing medical marijuana. Approved products must meet all of the established testing standards within plus or minus 20% of the target set for each test.

All products require a range of tests including testing for: THC concentrations (potency); the presence of , pesticides, microbials, heavy metals and solvents;. and, for food-borne contaminants such as salmonella and e. Coli. All inhalable products also require aspergillus testing. All concentrates or products containing concentrates require testing for mycotoxins. Reporting of the presence of terpenes is not mandatory but maybe included in the testing results.

Any qualifying patient or designated caregiver has the right to request and receive a copy of the Certificate of Analysis ("COA"), the laboratory report of testing on the cannabis product they are purchasing or have purchased in any Arizona dispensary after November 1, 2020. Requests for copies of laboratory results for products offered or sold through a Sol Flower Dispensary may be directed to any patient advocate on the dispensary floor at the time of purchase or call main line (480) 664-2017 and a copy will be emailed.

COA reports will be delivered in the reporting format chosen by the grower or manufacturer of the specific product for which the request is made which may be via a readable QR code, a website portal (URL) or on an actual piece of paper. Many of the terms used in the reports are summarized in the glossary on the next page.



Alternative Medicines to Cannabis

Doctors can prescribe two legal alternatives to cannabis, dronabinol (Marinol) and nabilone (Cesamet). These drugs contain a man-made form of THC, the main chemical in marijuana.

Nabilone is used to relieve nausea and vomiting caused by cancer chemotherapy. Dronabinol can relieve this kind of nausea and vomiting as well. It may also improve the appetite of people who have AIDS or other ailments that may affect the appetite. Both dronabinol and nabilone can be used to relieve pain and spasticity in people who have multiple sclerosis. Both drugs come in pill form.

Another popular alternative to cannabis is acupuncture. Acupuncture is the stimulation of specific acupuncture points along the skin of the body involving various methods such as penetration by thin needles or the application of heat, pressure, or laser light.

Again, please consult your physician and the physician who provided you written certification for medical marijuana use before taking Medical Marijuana.



Reducing the Risks Related to Consumption of Medical Cannabis

It is true that any smoke or products of combustion potentially contains carcinogens or other products that are harmful to the lungs and body if inhaled. Some studies may suggest a relationship between cannabis smoke and precancerous cellular changes. However, a review of the medical literature does not conclude a clear causal link between cannabis smoke and an increase in cancer occurrence in humans. Although in general, it is always healthier to avoid the inhalation of smoke and combustion products.

A vaporizer can be used as an alternative to smoking in order to reduce potential risk from smoke, combustion products and heat. Some in the medical community believe repetitive heat delivery to the air passages and lungs may affect lung elasticity and overall, long-term performance.

Risk may be reduced by decreasing the temperature of inhaled smoke or using alternative methods of dosing. Employing a water pipe decreases the temperature of smoke.

However, it has been shown that water pipes are potential vehicles to spread illnesses, such as viruses and even tuberculosis and should be kept clean and sanitized. Other alternatives to smoking include vaporization, as well as edible dose delivery in capsules, foods or teas. Transdermal delivery through the skin such as in creams and oils, salves, balms, infusions, poultices, soaps, etc. are also effective.

Cannabis is a psycho-active substance, as it can produce profound changes to a person's mental-emotional state. This is one of the reasons that cannabis is such an effective medicine at producing a powerful sense of wellbeing. As the mental-emotional state of a person is very complex and constantly seeking a state of balance, the ingestion of any psycho-active substance has the potential of temporarily upsetting the balance and inducing symptoms such as anger, sadness, anxiety, depression, paranoia, panic attacks, and lack of motivation.

Individuals predisposed to mental-emotional illness or suffering from mental-emotional illness such as schizophrenia, may be of higher risk to cannabis induced mental-emotional imbalances.



Most importantly, one must understand that any time a person ingests a psycho-active substance - there is a risk they may not feel the way they had intended, especially as a result of the ingestion of larger doses. Should any mental-emotional discomfort or anxiety occur after ingesting medical marijuana, discomfort or anxiety should resolve within a few hours as the medication metabolizes in one's body.

Always make sure you are in a safe environment before beginning the ingestion of cannabis or changing dosage.

As a psycho-active substance, the potential risk for psychological dependence does exist. Be aware of abuse signs such as increased frequency and quantity of use, or negative changes in motivation, person responsibilities and/or relationships.

As a psychoactive substance, cannabis may affect a person's decision making and physical coordination. **Therefore, no one should operate heavy equipment or motor vehicles while impaired due to the influence of cannabis or any other substance.**

Cannabis metabolites can remain in one's system for up to 30 days, therefore, patients should be aware that they may test positive for cannabis even when not impaired.

The legal and social status of cannabis may be the greatest risk proposed by cannabis usage. **Cannabis is still considered illegal by the United States Government, and as a result, there is still the potential from prosecution and punishment.**

Please note that current level of cannabis prices, one may place you at risk of being a victim of violence from individuals who want to possess the medical marijuana products. To reduce the potential of this risk, patients should maintain discretion and privacy related to the use of medical cannabis.

Additional Information:

1. It is unlawful to smoke or ingest Medical Marijuana in public places.
2. It is highly recommended that ALL medication be kept in a locked and secure location.
3. At all times Medical Marijuana is to be kept out of the reach of children and should not be used while caring for or supervising children.
4. It is advised that you consult your employer and the HR department regarding their policies for utilizing and/or being under the influence of Medical Marijuana while working.
5. Driving a vehicle and/or operating heavy machinery while impaired is strictly prohibited under any circumstances.



Herbs and supplements that may affect:

- Anti-cancer
- Anti-seizure
- Fertility
- Blood vessel width
- The immune system
- May be toxic to the liver
- May improve breathing or treat lung disorders
- May increase appetite
- May treat heart disorders
- May treat nausea and vomiting
- May treat nervous system disorders
- May treat psychiatric disorders
- May treat retrovirus infections (HIV)
- May treat skin disorders
- May treat stomach disorders
- Hormonal herbs and supplements
- Nicotine
- Nonsteroidal anti-inflammatories
- Opioid receptor antagonists
- Pain relievers
- P-glycoprotein-regulated
- Phytoestrogens
- Synthetic cannabinoids.

Always communicate any health and/or medication changes with your primary care physician. If you are using or considering using any of supplements always first discuss the potential impact of using medical marijuana with these supplements or any prescription or non-prescription drugs



transient hypotension and increased systolic blood pressure have also been recorded, risk of cardiovascular events, such as acute myocardial infarction, has been suggested.

Again, please consult your physician and the physician who provided you written certification for medical marijuana use before taking Medical Marijuana.

Interactions with Herbs and Dietary Supplements (Please consult your doctor first)

Marijuana may increase the risk of bleeding when taken with herbs and supplements that are believed to increase the risk of bleeding. Multiple cases of bleeding have been reported with the use of Ginkgo Biloba, Garlic and Saw Palmetto. Numerous other agents may theoretically increase the risk of bleeding. Please consult you're the physician who provided you with written certification for your medical marijuana patient card.

Marijuana may affect blood sugar levels. Caution is advised when using herbs or supplements that may also affect blood sugar. Blood sugar levels may require monitoring, and doses may need adjustment.

Marijuana may cause low blood pressure. Caution is advised in people taking herbs or supplements that lower blood pressure.

Marijuana may interfere with the way the body processes certain herbs or supplements using the liver's cytochrome P450 enzyme system. As a result, the levels of other herbs or supplements may become too high in the blood. It may also alter the effects that other herbs or supplements possibly have an effect on the P450 system.

Marijuana may increase the amount of drowsiness caused by some herbs or supplements.

Marijuana may also interact with;

- Anabolic steroids
- Antioxidants
- Barbiturates
- Benzodiazepines
- Central nervous system depressants
- Corticosteroids
- Dopamine antagonists.

Dosing Medical Marijuana

Raw botanical medicines such as cannabis can have different levels of constituents, based on different strains, the quality and age, how it was grown and processed. This can lead to different potencies of the botanical medicine and the need to dose it accordingly. As a psychoactive substance, cannabis does have the ability to produce short-term mental emotional discomfort or distress and physical coordination imbalances especially with larger doses. Therefore, it is important to quantify cannabis doses carefully and be aware that the same dose may have different impact on different individuals.

With every new strain of medical cannabis, new batch or with different preparations or modes of administration, the first thing to remember is always to begin with the smallest possible dose, give it plenty of time to completely take effect and take note of how such a dose makes you feel. (See Page 29 of this handbook). Does it achieve the desired results? Does it induce any negative side effects? If the dose did not achieve the desired results and did not produce any negative side effects, then the patient can re-dose with a small incremental increase in dose as needed. If the dose produces any negative side effects consult the physician who provided you written certification for medical marijuana.

Please consider waiting at least one hour for inhalation and at least 3 hours for edibles and transdermal administrations to realize full effect before re-dosing. Patients often repeat this process until the patient has found the optimum dose that provides the maximum desired results while minimizing or eliminating side effects. A personal medical journal for each patient is the best way to record and determine optimum dosing for each product of medical cannabis.



Methods of Administering Medical Marijuana

INHALATION/SMOKING

For first time users or when changing strains or testing new batches, it is recommended to start with one moderate puff or inhalation and record results and effects. Wait at least one hour to know the full effect before deciding to re-dose or increase your dosage. The inhalation delivery method typically has an onset of within a few minutes and a duration peak of 2-3 hours.

The most popular method to deliver medical cannabis is through inhalation via smoking. With inhalation, medical cannabis is delivered to the blood stream through the lungs within 2-5 minutes and provides the quick results. Cannabis can be rolled into paper commonly called a joint, typically holding 1-3 grams of dried product. There are different types of papers and today most dispensaries carry pre-rolled joints called "Pre-Rolls".

Many types of smoking devices commonly known as pipes are available; including water pipes or bongs that cool and add moisture to cannabis smoke to decrease irritation to throat that may be caused by smoke. It is important to be aware that pipes may leach contaminants and should be made of inert substances. Water pipes may harbor infectious microbes and should be kept clean. Combustion such as smoking can produce products that may be considered carcinogens and unhealthy for human consumption. Vaporizers are one method of avoiding combustible products. A vaporizer uses an energy source (often a battery) to heat cannabis to a temperature that the oils in the cannabis become a vapor and can be inhaled into the lungs. There are many different vaporizers on the market that vary greatly in quality and price.

ORALS, EDIBLES, & TEAS

Oral (by mouth) delivery of medical cannabis is another effective method of dosing. Currently, the most popular methods of oral administration are foods infused with cannabis commonly called edibles. As with other medicinal herbs, dried cannabis can be strained through boiling water to make a tea. Many cannabis infused foods are in the form of treats such as cookies and candies and have a high sugar content. Patients should be aware that sugar is very inflammatory and can lead to and exacerbate many medical conditions, and therefore, may not be a good choice for many patients, especially on a regular basis. Patients should consult their health care professional on nutritional concerns and take this into consideration when choosing edible medications.



initiate fluctuations in vitals, blood pressure, blood sugar and other parameters that may require alterations to prescription medication recommendations and dosages.

Please consult your physician and the physician who provided you written certification for medical marijuana use before taking Medical Marijuana.

Potential Prescription Drug Interactions (Please consult your doctor first)

One could expect an increase the plasma concentration of marijuana with the following medications amiodarone, cimetidine, cotrimoxazole, metronidazole, fluoxetine, fluvoxamine, fluconazole, and voriconazole, ketoconazole, clarithromycin, erythromycin, cyclosporine, verapamil, itraconazole, voriconazole, and boceprevir, which may cause undesired effects and cause more issues due to drug-marijuana interaction, also always consult your doctor with specific questions. Conversely, rifampin, a CYP3A4 inducer, has been reported to reduce THC levels by 20% to 40%. **Please consult your physician and the physician who provided you written certification for medical marijuana use before taking Medical Marijuana.**

Potential Interactions with Non-Prescription Drugs (Please consult your doctor first)

Using diphenhydramine or Benadryl together with cannabis may increase side effects such as dizziness, drowsiness, confusion, and difficulty concentrating. Some people, especially the elderly, may also experience impairment in thinking, judgment, and motor coordination. You should avoid or limit the use of alcohol while being treated with these medications. Also avoid activities requiring mental alertness such as driving, voting, or operating hazardous machinery until you know how the medications affect you. Talk to your doctor if you have any questions or concerns. It is important to tell your doctor about all other medications you use, including vitamins and herbs. Do not stop using any medications without first talking to your doctor.

Also using medical marijuana while taking over the counter drugs like Benadryl may cause issues for you, as well as combining it with blood thinning agents, such as ibuprofen, aspirin, naproxen, etc. Some cold/cough over-the-counter medications may have contain all of the ingredients listed of the above. Also one needs to be careful with decongestants, since they may elevate blood pressure, and medical marijuana may also produce increases in heart rate and both



Cannabis (Marijuana) & Drug Interactions

*****WARNING*****

If you have issues or you're taking the medications, and/or supplements, and over the counter preparations, and herbs, for the purposes that may affect: bleeding (blood clotting), blood sugar, cytochrome p450 interactions, blood pressure or sleep, please consult with your doctor prior to marijuana use. There could be other unknown or unreported effects of marijuana with other herbs, supplements, or other substances. You should also be careful with any and all over-the-counter medications. Always consult your doctor. If you are taking edibles and take acid reducers, they may affect how your medical marijuana preparation is absorbed as well.

Alcohol effects may be increased when combined with cannabis increasing the risks of dizziness, loss of coordination, nausea and vomiting. Theoretically, cannabis is an anticonvulsant and may suppress vomiting and lead to alcohol poisoning.

Opiate medications are highly toxic and a significant potential for overdose causing death. Please consult your physician before using either opiates or cannabis and certainly before using both in any combination.

Sedatives can make patients very drowsy. Combining these medications with cannabis may cause excessive sleepiness. Examples of sedatives include: clonazepam (Klonopin), lorazepam (Ativan), phenobarbital (Donnatal), and Zolpidem (Ambien).

The manufacturer of Disulfiram (Antibuse) reports that combined use with marijuana may cause irritability and sleep disturbances.

SSRI's and other mood-altering drugs have had reports of interactions such as irritability and nervousness. Examples of mood altering drugs include: fluoxetine (Prozac) and sertraline (Zoloft). For patients taking these medications, please consult your physician before using cannabis in any form. Cannabis use, along with other changes in lifestyle and health, may



Edibles can also vary greatly in potency depending how much medical cannabis was used in the making of the edible and how it was processed. Edibles may be made with doses that are minuscule up to several grams. Know the origins and content of anything and everything you ingest. First-time, and low-tolerance patients and users testing new strains or batches should consider ingesting one quarter to one half the recommended dose, based on known tolerances and recording their results and effects (see Page 29). A half of a gram dose is a moderate to strong dose for a generally product-tolerant adult. Wait at least 3 hours before deciding to re-dose or increase dosage based on effects. **Oral administration can take 1-2 hours to take effect and may last 6-8 hours.**

Oral administration may be the first choice for patients who need extended action such as to last through the night or who are in a situation where inhalation may not be possible or practical. Medical cannabis encapsulates can be prepared for oral administration. Empty cellulose capsules can be purchased from your local natural medicine store. Medical cannabis can be ground and placed in these capsules. Coconut or olive oil can be added to help absorption, or they should be consumed with a fat-rich meal. Capsules can be made with less than a gram increments up to one gram.

Remember this varies with the quality and type of the original product.

Medical marijuana must be kept out of reach of children. Leaving edibles and other medical marijuana in a refrigerator or in an open area accessible to children may result in endangerment complaints and charges

EXTRACTIONS, TINCTURES, & SKIN PREPARATIONS

As with most commonly used botanical medicines, extractions can be made with medical cannabis in the form of tinctures, teas, oil bases salves, lotions, and soaps. Tinctures are prepared by soaking the botanical in ethyl alcohol for a time period and then straining the coarse solid material to produce an alcohol extract. The strength can vary greatly depending on the strength and quality of the medical cannabis used in the extraction. Tinctures can be taken by mouth or rubbed on the skin. If the tincture is put in a cup of warm water, the alcohol will evaporate and often makes it more palatable. First-time and low-tolerance users should begin with ¼ to ½ of the recommended dose and keep a record of results and effects. Wait 3 hours to examine the full effect before deciding to re-dose or increase your dose. Medical cannabis can also be infused into oil and rubbed on the skin, or most popularly in balms and salves to aid in healing and local musculoskeletal aches and pains.



Side Effects and Contraindications of using Marijuana

(As presented by the Arizona Department of Health Services)

Please notify the physician who provided you with your written certification for medical marijuana if any of these side effects or contraindications occur.

Short-Term Mental Side Effects Include:

- Problems with memory and learning
- Distorted perception
- Difficulty thinking and problem solving
- Impaired driving ability
- Mental confusion
- Panic attacks and reactions
- Hallucinations

Short Term Physical Side Effects Include:

- Sedation
- Bloodshot eyes
- Coughing
- Increased appetite
- Decreased blood pressure
- Bronchitis
- Bronchial asthma

Contraindications:

Patients with respiratory disorders exacerbated by smoking should use alternative forms of delivery methods.

Cannabis use may have effects on heart rate and blood pressure. Therefore, patients with severe heart conditions should discuss this with their physician. Cannabis may elicit schizophrenic episodes in patients who are predisposed to schizophrenia. Individuals with a medical history of schizophrenia or family history of schizophrenia may be contraindicated for cannabis use.



DSM-IV Substance Dependence Criteria

Substance dependence is defined as a maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring any time in the same 12-month period:

- Tolerance, as defined by either of the following: (a) A need for markedly increased amounts of the substance to achieve intoxication or the desired effect or (b) Markedly diminished effect with continued use of the same amount of the substance.
- Withdrawal, as manifested by either of the following: (a) The characteristic withdrawal syndrome for the substance or (b) The same (or closely related) substance is taken to relieve or avoid withdrawal symptoms.
- The substance is often taken in larger amounts or over a longer period than intended.
- There is a persistent desire or unsuccessful efforts to cut down or control substance use.
- A great deal of time is spent in activities necessary to obtain the substance, use the substance, or recover from its effects.
- Important social, occupational, or recreational activities are given up or reduced because of substance use.
- The substance use is continued despite knowledge of having a persistent physical or psychological problem that is likely to have been caused or exacerbated by the substance (for example, current cocaine use despite recognition of cocaine-induced depression or continued drinking despite recognition that an ulcer was made worse by alcohol consumption).



Medical Diagnosis- Substance Abuse

The information in this section comes from Pages 181-183 of the American Psychiatric Association's 1994 Diagnostic and Statistical Manual of Mental Disorders.

DSM-IV Substance Abuse Criteria

Substance abuse is defined as a maladaptive pattern of substance use leading to clinically significant impairment or distress as manifested by one (or more) of the following, occurring within a 12-month period:

- Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (such as repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; or neglect of children or household).
- Recurrent substance use in situations in which it is physically hazardous (such as driving an automobile or operating a machine when impaired by substance use)
- Recurrent substance-related legal problems (such as arrests for substance-related disorderly conduct)
- Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (for example, arguments with spouse about consequences of intoxication and physical fights).

Note: According to the DSM-IV, a person can be abusing a substance or dependent on a substance but not both at the same time.



Please discuss with physician if medical marijuana is right for you if you are:

- A patient with a past history of adverse reactions to cannabis.
- A patient using other prescription mood altering medications or narcotic pain medications.

Are you Pregnant or are considering becoming pregnant? Did you know Cannabis constituents pass through breast milk? Please make sure to consult with your Physician

EFFECT OF MEDICAL MARIJUANA ON THE CARDIOVASCULAR SYSTEM:

In some persons, marijuana use has been observed to increase heart rate and to cause postural fluctuations in blood pressure. These conditions have been implicated in developing heart attacks or strokes. Specifically, use of cannabis regardless of delivery system (smoking, vaping, edibles, etc.), can lead to anxiety that can result in increased heart rate and fluctuations in blood pressure. If you experience anxiety of fluctuation in heart rate or blood pressure, please discontinue use of cannabis and consult your doctor immediately.

EFFECT OF MEDICAL MARIJUANA ON GASTROINTESTINAL SYSTEM:

Patients from time to time have experienced GI problems after consuming too much cannabis. If you are currently experiencing, or have experienced gastrointestinal side effects, please discontinue use of cannabis and consult your doctor immediately.

PSYCHOLOGICAL EFFECT OF MEDICAL MARIJUANA

When someone is high on marijuana, they may experience temporary hallucinations or sensations and images that seem real even though they are not. They may also experience temporary paranoia, which is an extreme and unreasonable distrust of others. If you experience hallucinations or paranoia, please discontinue use of cannabis and consult your doctor immediately.



Signs & Symptoms of Substance Dependence & Abuse

The dialog of substance abuse is ongoing and has many different perspectives. The simple medical view can be broken down to chemical and psychological dependence and substance abuse. Dependence is the continued need to use a substance. This may be caused by a chemical dependence, meaning one will potentially become ill or have medically significant withdraw symptoms if they quit or decrease the dose of the substance. Opiate based drugs and medications such as morphine and heroin are known to cause strong chemical dependence. Other substances may not have a strong chemical dependence but can have a psychological dependence. This is associated with an intense uncontrollable sensation or desire to use the substance or when discontinued use may result in mood imbalances and symptoms such as irritability. Cannabis (marijuana) could impose chemical dependence on patient subject to psychological dependence.

Substance abuse is defined as the continued use of a substance even though it is causing problems in an individual's life.

Division of Behavioral Health Services- Substance Addiction

The American Psychiatric Association lists alcohol, amphetamines, barbiturates, cocaine, narcotics, nicotine, and many other chemicals as addictive substances. People are considered chemically dependent if they meet three or more of the following criteria during a 12-month period:

- Needing more of the substance to “feel good” or achieve intoxication.
- Having withdrawal symptoms after stopping use or using the substance to avoid those symptoms (see the link for withdrawal symptoms for alcohol, cocaine, narcotics and nicotine below).
- Using more of the substance than usual, or for longer than intended.
- Continuing desire for the substance or unsuccessful attempts to cut down or stop using it.
- Spending a lot of time to obtain, use, or recover from the substance.
- Giving up or cutting back on important social, work-related, or recreational activities.
- Continuing to use the substance even though it's causing problems.



What Causes Addiction?

The National Council on Alcoholism and Substance Abuse calls addiction “a primary, chronic disease with genetic, psychosocial, and environmental factors influencing its development and manifestations. The disease is often progressive a fatal.”

Overcoming addiction - Addiction seems to come from interplay of emotional, genetic, and learned factors. No matter what the cause, people who are involved in any addiction and their loved ones need professional help. Recovery of any addiction is possible, especially at early stages of the addiction.

Helpful Links

Addictionwithdrawal.com This website provides a list of the withdrawal symptoms for a variety of substances. It also has a toll-free number for free assistance.

The Agape Center The center provides a substance abuse treatment facility locator for Arizona.

AddictionSearch.com This website provides addiction information, a list of Arizona drug and alcohol rehab programs, a list of addiction treatment centers, and offers counselors 24 hours a day.

The Substance Abuse and Mental Health Services Administration (SAMSHA) offers treatment locators, information by topic, programs, publications, FAQs, and much more including the following:

- **CSAT** The Center for Substance Abuse Treatment promotes the quality and availability of community-based substance abuse treatment services for individuals and families who need them.
- **The National Institute On Drug Abuse (NIDA)** delivers educational resources based on audience group type such as students, young adults, parents, teachers, etc. as well as by substance type.
- **NCADI** National Clearinghouse for Drug and Alcohol Information where you can get the latest information on the prevention and treatment of mental and substance abuse disorders.