UNDERSTANDING MEDICAL CANNABIS
takoma wellness center

DC's family-run medical marijuana dispensary
Hamsa

A universal symbol of Peace, Hope, Protection, and Healing. Treasured by Muslims, Christians, Jews and others, both the Hebrew word "hamesh" and the Arabic word hamsa have the same source, meaning "five", hence the hand representing - Peace, Hope Protection and Healing.
to provide you with the best patient experience possible, in a professional, warm, and comfortable environment, offering the highest quality and largest variety of medicinal grade marijuana and marijuana concentrates, as well as books and accessories, at great prices.
# TAKOMA WELLNESS CENTER

## HOURS OF OPERATIONS

<table>
<thead>
<tr>
<th>Day</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday - Friday</td>
<td>1:00 pm – 7:00 pm</td>
</tr>
<tr>
<td>Saturday</td>
<td>CLOSED</td>
</tr>
<tr>
<td>Sunday</td>
<td>11:30 am – 5:00 pm</td>
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</tbody>
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CANNABIS
Cannabinoids: 3 Varieties

**Endocannabinoids** (Di Marzo 1998): natural endogenous compounds binding cannabinoid receptors (e.g., anandamide and 2–AG Arachidonoylglycerol) whose functions are: “relax, eat, sleep, forget and protect” in human beings

**Phytocannabinoids** (Pate 1994): terpenophenolic 21–C plant compounds found in the genus *Cannabis* (e.g., THC, CBD)

**Synthetic Cannabinoids** (e.g., ajulemic acid) that also affect cannabinoid receptors. Dronabinol (e.g. Marinol)

THC and other cannabinoids are produced in the trichomes

Trichomes are predominant in the flowers and leaves of the female Cannabis plant
<table>
<thead>
<tr>
<th>Terpenes: Smells &amp; Therapeutic Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>α-PINENE</strong></td>
</tr>
<tr>
<td>Pine needles</td>
</tr>
<tr>
<td>Anti-bacterial</td>
</tr>
<tr>
<td>Anti-fungal</td>
</tr>
<tr>
<td>Anti-inflammatory</td>
</tr>
<tr>
<td>Bronchodilator</td>
</tr>
<tr>
<td><strong>β-CARYOPHYLLENE</strong></td>
</tr>
<tr>
<td>Black Pepper</td>
</tr>
<tr>
<td>Anti-bacterial</td>
</tr>
<tr>
<td>Anti-cancer</td>
</tr>
<tr>
<td>Anti-fungal</td>
</tr>
<tr>
<td>Anti-inflammatory</td>
</tr>
<tr>
<td>Anti-septic</td>
</tr>
<tr>
<td><strong>BORNEOL</strong></td>
</tr>
<tr>
<td>Camphor</td>
</tr>
<tr>
<td>Analgesic</td>
</tr>
<tr>
<td>Anti-insomnia</td>
</tr>
<tr>
<td>Anti-septic</td>
</tr>
<tr>
<td>Bronchodilator</td>
</tr>
<tr>
<td><strong>CARYOPHYLLENE OXIDE</strong></td>
</tr>
<tr>
<td>Eucalyptus</td>
</tr>
<tr>
<td>Anti-fungal</td>
</tr>
<tr>
<td>Anti-ischemic</td>
</tr>
<tr>
<td><strong>CINEOL</strong></td>
</tr>
<tr>
<td>Tea Tree</td>
</tr>
<tr>
<td>Anti-bacterial</td>
</tr>
<tr>
<td>Anti-depressant</td>
</tr>
<tr>
<td>Anti-inflammatory</td>
</tr>
<tr>
<td>Anti-ischemic</td>
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<tr>
<td>Bronchodilator</td>
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<tr>
<td><strong>CITRONELLOL</strong></td>
</tr>
<tr>
<td>Rose</td>
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<tr>
<td>Anti-cancer</td>
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<tr>
<td>Anti-inflammatory</td>
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<tr>
<td>Anti-insomnia</td>
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<tr>
<td>Anti-septic</td>
</tr>
<tr>
<td>Anti-spasmodic</td>
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<tr>
<td><strong>HUMULENE</strong></td>
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<tr>
<td>Hops</td>
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<tr>
<td>Anorectic</td>
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<tr>
<td>Anti-cancer</td>
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<tr>
<td>Anti-bacterial</td>
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<tr>
<td>Anti-inflammatory</td>
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<tr>
<td><strong>LINALOOL</strong></td>
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<tr>
<td>Lavander</td>
</tr>
<tr>
<td>Anti-anxiety</td>
</tr>
<tr>
<td>Anti-bacterial</td>
</tr>
<tr>
<td>Anti-convulsive</td>
</tr>
<tr>
<td>Anti-depressant</td>
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<tr>
<td>Anti-insomnia</td>
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<tr>
<td><strong>MYRCENE</strong></td>
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<tr>
<td>Lemongrass</td>
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<tr>
<td>Analgesic</td>
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<tr>
<td>Anti-cancer</td>
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<tr>
<td>Anti-inflammatory</td>
</tr>
<tr>
<td>Anti-insomnia</td>
</tr>
<tr>
<td>Anti-spasmodic</td>
</tr>
<tr>
<td><strong>NEROLIDOL</strong></td>
</tr>
<tr>
<td>Wood</td>
</tr>
<tr>
<td>Anti-fungal</td>
</tr>
<tr>
<td>Anti-insomnia</td>
</tr>
<tr>
<td><strong>PHYTOL</strong></td>
</tr>
<tr>
<td>Green Tea</td>
</tr>
<tr>
<td>Anti-insomnia</td>
</tr>
<tr>
<td><strong>TERPINOLENE</strong></td>
</tr>
<tr>
<td>Lilac</td>
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<tr>
<td>Anti-bacterial</td>
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Sativa plants are used most commonly to elevate a depressed mood. Primarily the effects of sativas are on the mind and emotion. They tend to more stimulating, uplifting, energizing, and creativity enhancing. Sativas are generally better for daytime use.

- Benefits may include:
  - reduces depression
  - relieves headaches and migraines
  - energizes and stimulates
  - reduces awareness of pain
  - increases focus and creativity
  - reduces nausea
  - stimulates appetite
Indica plants induce a relaxing mood. This can be helpful for symptoms such as anxiety, pain, and tremors. The effects of indica are mostly physical and have been described as relaxing, sedating and pain reducing. Indicas are usually best for later in the day or before bed.

- Benefits may include:
  - pain reduction
  - anticonvulsant
  - reduction in pressure inside the eye
  - stimulates appetite
  - muscle relaxation
  - sleep inducing
  - reduces nausea
  - reduces inflammation
  - reduces spasms
  - reduces anxiety and stress
HYBRIDS

Grown to have specific qualities of their parent strains.

- they can have any ratio of indica to sativa
  - Indica dominant
  - Sativa dominant
Medical Cannabis Comes in Many Forms
Alternative Methods of Cannabinoid Delivery

- Vaporizing, Inhalation
- Edible Infused Product
- Oil, Spray, Tincture
- Topical Capsule

SMOKING
HOW IT IS CONSUMED

MODES OF DELIVERY

PRIMARY ROUTES OF ADMINISTRATION

LUNGS INHALATION
- Diffusion into alveolar capillaries and then enters the bloodstream
- Maximal onset occurs at 15-30 min and lasts generally 2-3 hours (short-term relief)

Interpatient variability
- # of inhalations
- Duration of inhalations
- Spacing of puffs
- Hold Time
- Inhalation Volume
- Metabolism occurs in the lung, liver, brain
- High plasma levels 100 ng/ml

GUT INGESTION
- Metabolized in the liver and turned into 11′ hydroxy THC
- Patient will see more sedation or euphoria
- Onset can be anywhere from 30 min to 2 hours and can last generally 5-8 hours (long-term relief)

Interpatient variability
- Other food ingested/or lack of
- Individual variation in metabolism rates
- Frequency of use
- Variable absorption in the gut
- Low plasma THC levels 5 ng/ml
Tinctures & Cartridges

- Excellent choice for those not wanting to smoke or vaporize.
- Discrete, easy to use
- Sublingual dosing works extremely well, however difficulty with burning sensation of alcohol based tinctures (suggesting different methods of use)
- Oil cartridges
  - Often easiest option
  - Almost odorless and smokeless
- Best to give written instructions
CBD Oil

- We provide whole plant, CBD dominant oil free to minors enrolled in the DC program.
- We do not carry or recommend using CBD made from hemp.
- Many adults use the CBD Oil as well. Recommended for seizures, neuropathic pain, inflammation and anxiety. Used as a daily supplement, and recommended for use with THC.
- ProjectCBD.org
Edibles

- Very few in DC market
- None will be available in Maryland market, however patients can make their own with specialized butter-making machine or concentrated oils.
- Many patients (particularly novices) think that edibles are best option, however, due to difficulty in titration, slow onset, length of duration, and ease of ingesting too much....it is not necessarily the best method of most people.
Concentrates

- It's all about the essential oil! Comes in many forms...concentrates, flowers, tinctures, oil capsules, etc.
- Concentrates like hash, kief, rosin and oils are often purchased by experienced users, but can be helpful for very ill patients, as very little is needed for strong, rapid relief from nausea and vomiting, pain, etc.
- We recommend use of vape pens, rather than dabbing rigs (we don’t sell blow torches)
TOPICALS

- THCA and CBDA
- No psychoactivity
- Helpful for skin irritations and pain (including menstrual pain and arthritis).
- Easy to use, lack of odor make an attractive option.
HOW TO STORE THE PRODUCT
Dried marijuana plant material and cannabis products should be stored in a cool place, preferably away from light and air. See manufacturer’s instructions on the product label for recommended storage conditions.

Keep any cannabis and cannabis products out of the reach of children and locked in a safe place to prevent theft, misuse and accidental ingestion by children. This product should not be shared with anyone else.

ONSET, PEAK, AND DURATION OF EFFECTS
With inhalation (smoking, vaporizing), effects may be felt within a few minutes of dosing and will generally peak within 30 mins. effects generally last between 2 and 4 hours but may be longer (e.g. 24 hours).

With oral ingestion (e.g. oils, foods, capsules), acute effects may begin to be felt as quickly as 30 mins and as late as 3 or 4 hours after administration. This variability in timing depends on a number of factors (e.g. amount of food in stomach). It is prudent to wait a minimum of 2 hours between administration of single doses of oral products to avoid possible overdosing. Acute effects generally peak between 3 and 4 hours after dosing and can last up to 8 hours or longer (e.g. 12–24 hours). With topical application, it is not known how long it takes for potential therapeutic effects to appear, nor how long they last. There have been reports of hypersensitivity reactions (e.g. rashes, itching) when skin has come into contact with cannabis.

SIDE EFFECTS AND WHAT TO DO ABOUT THEM
The information on side effects associated with therapeutic use of cannabis is limited. Some of the more well-known side effects are intoxication-like reactions including:
• dizziness, drowsiness, feeling faint or lightheaded, fatigue, headache;
• impaired memory and disturbances in attention, concentration and ability to think and make decisions;
• disorientation, confusion, feeling drunk, feeling abnormal or having abnormal thoughts, feeling “too high”, feelings of unreality, feeling an extreme slowing of time;
• suspiciousness, nervousness, episodes of anxiety resembling a panic attack, paranoia (loss of contact with reality), hallucinations (seeing or hearing things that do not exist);
• impairments in motor skills and perception, altered bodily perceptions, loss of full control of bodily movements, falls;
• dry mouth, throat irritation, coughing;
• worsening of seizures;
• hypersensitivity reactions (contact dermatitis/hives);
• higher or lower blood levels of certain medications;
• nausea, vomiting, and
• fast heartbeat.
Potential Side Effects

SIDE EFFECT CONSIDERATION

Cardiovascular
- Tachycardia, palpitations, hypertension/hypotension

Respiratory (smoked)
- Coughing
- Wheezing
- Sputum production

Neurologic
- Lethargy, (sedation, slowed reaction time, dizziness)
- Psychological dysfunction (paranoia/hallucinations)

INTERACTIONS WITH OTHER DRUGS

Co-Antagonistic Effect

Cannabis + Benzodiazepines, Alcohol, Opioids → Sedation Lethargy Decreased LOC

Cannabis + Insulin → Lower Blood Sugar
Using cannabis as a medical treatment is a very individualized experience.

Ingested cannabis product can take up to 2 hours to feel effects.

Inhaled as short as 5 minutes. Use the SMALLEST amount to achieve the desired effects. Be INFORMED and be WELL!
Healthcare Professionals as Bridges

- You can be the bridge between the physician, the patient and the dispensary staff.
- Expand your knowledge of the Endocannabinoid System, individual state laws, and the nuances of the difference cannabinoids, strains, terpenes, and methods of ingestion.
- Help banish the stigma, ignorance, fear, and prejudices of using cannabis as medicine (from both healthcare professionals, patients and their families).
ORGANIZATIONAL ENDORSEMENTS–USA

American Academy of Family Physicians
American Medical Student Association
American Nurses Association
American Osteopathic Association
American Preventive Medical Association
American Public Health Association
American Society of Addiction Medicine
American Cancer Society
Kaiser Permanente
American Medical Association
National Academy of Sciences–Institute Of Medicine
National Association for Public Health Policy
National Cancer Institute
National Nurses Society on Addictions
New England Journal of Medicine
Dr. Andrew Weil
3 Easy Steps!

1. See a health care practitioner for a recommendation.

2. Come to TWC with proper documents & payment.

3. Receive your card in the mail from DC’s Dept of Health!
Medical Cannabis in Maryland
In 3 Easy Steps...

1. **Step 1:** Register as a qualifying patient on the [Maryland Medical Cannabis Commission's (MMCC) website](#). You will need...
   - Proof of Maryland residency (typically a picture of your Driver’s License front and back)
   - A working email address
   - A passport-style photo

2. **Step 2:** After you register, visit a physician registered with the MMCC.
   - [Here](#) is a (partial) list of Maryland doctors registered and willing to recommend medical cannabis.
   - Note: After registering in Step 1, you will receive an email with your patient ID # (typically within 48hrs). Bring this number to your doctor’s appointment!

3. **Step 3:** Come to Liberty Dispensary, located at 12001 Nebel Rd, Rockville, MD 20852 (just down the street from MOM’s Grocery Store).
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Step 3: Go to Liberty Dispensary, located at 12001 Nebel St, Rockville, MD 20852 (just down the street from MOM’s Grocery Store). Liberty has lots of parking!
QUESTIONS?
Contact Paula Querido Kahn
paula@takomawellness.com

Thank You!