

## An Ayurvedic Approach to the use of Cannabis to treat Anxiety

By:

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At (approximately) nearly 5000 years old, Ayurveda is touted as being one of, if not the oldest healing modality on the planet. The word Ayurveda translates from Sanskrit to “The Science of Life” and is based on the theory that each of us are a unique blend of the 5 elements that make up the known Universe and our planet. Earth, air, fire, water and ether all combine together to create our physical form. When living in harmony with the rhythms of nature and in accordance to our unique constitution, health prevails. When we step outside of our nature by eating foods that are not appropriate, exposing ourselves to outside stressors, and by ignoring the power of our internal knowing, we then leave ourselves vulnerable to dis-ease.

Doshic theory reveals to us that these 5 elements then combine with one another to create 3 Doshas. Air and Ether come together to create Vata, Fire and Water to create Pitta and Earth and Water to create Kapha. As we take our first breath upon birth, we settle into our Primary, Secondary and Tertiary doshas, also known as our Prakruti. This becomes our initial blueprint, our Health Touchstone if you will, which we will spend our lifetimes endeavoring to preserve. As time and experience march on, we may begin to experience a distancing from this initial blueprint, a disconnect from our true health, also known as our Vikruti. Outside stress, incorrect food choices, our personal karma and incorrect seasonal diet can all contribute to an imbalanced state within the doshas. By then looking to the qualities of the imbalance we can apply opposing qualities to draw the doshas back into harmony.

When looking specifically to Anxiety and seeking to treat it medicinally with Cannabis, we must first understand the nature of Vata dosha, as well as it's 5 vayus. Vata dosha is comprised of Air and Ether, is cold, light, dry, mobile, rough, subtle and clear. Vata is responsible for movement, motor function, circulation, respiration and sensory function. Each of these functions are assigned to a particular Vayu, or sub-dosha of Vata. To understand Anxiety more clearly from an Ayurvedic perspective, we examine both Vyana and Prana vayu for disturbances.

Vayu (Sub-Dosha of Vata)	Role in the Body and Mind
<b>Vyana (diffusive, circular)</b>	Governs circulation, movement. Governs peripheral nervous system.
<b>Udana (Upward moving)</b>	Governs throat and diaphragm, speech.
<b>Prana (Downward and inward moving)</b>	Governs respiration, movement of mind, emotions and sense perception.
<b>Samana (assimilating, inward)</b>	Governs metabolism, digestion, processing of emotions and information.
<b>Apana (Downward moving)</b>	Governs elimination, menstrual process, release of emotions.

Within the Charaka Samhita, an ancient Ayurvedic text, it is said "The body and that which is called the mind are both considered to be abodes of disease, likewise of well-being. The cause of well-being is their harmonious or concordant interaction." <sup>1</sup> From this perspective, we can regard anxiety as being an act of prajnaparada, or a crime against our intellect, expounded up on here from the Charaka Samhita "An unrighteous act done by one who is ignorant and of impaired memory is to be regarded as a volitional transgression (prajnaparadha)." <sup>2</sup>

Another Ayurvedic perspective of acute Anxiety is that it is the result of a derangement of Vata dosha, and in particular Vyana and Prana vayu. An excess of air and ether in these channels creates an excess of movement, increasing circulation (Vyana) and therefore resulting in heart palpitations, as well as an increase in the movement of the mind (prana) resulting in circular, cyclical thinking, worry, insomnia and fear.

The Anxiety and Depression Association of America defines anxiety as follows: "Generalized anxiety disorder is characterized by persistent, excessive, and unrealistic worry about everyday things. People with the disorder, which is also referred to as GAD, experience exaggerated worry and tension, often expecting the worst, even when there is no apparent reason for concern. They anticipate disaster and are overly concerned about money, health, family, work, or other issues. GAD is diagnosed when a person worries excessively about a variety of everyday problems for at least 6 months."<sup>3</sup> Affecting almost 7 million people in the United States today, women are seen to be most prone and this condition often exists in conjunction with other psychological conditions, referred to as co-morbidity.<sup>4</sup>

Though varied, the mainstream allopathic approach to treating anxiety often lies in psychotropic pharmaceutical applications such as Benzodiazepines, Beta Blockers, Tricyclic Antidepressants, Monoamine Oxidase Inhibitors (MAOIs), Selective Serotonin Re-Uptake Inhibitors (SSRI's) and (SNRIS) Serotonin-Norepinephrine Re-Uptake Inhibitors (SNRI'S)<sup>5</sup> These medications in their many forms, take action on the brain and nervous system, and in the case of SSRI's which are most often prescribed in cases of GAD (Generalized Anxiety Disorder) and depression, they alter the chemical composition of the brain. "SSRIs ease depression by affecting naturally occurring chemical messengers (neurotransmitters), which are used to communicate between brain cells. SSRIs block the reabsorption (re-uptake) of the neurotransmitter serotonin in the brain. Changing the balance of serotonin seems to help brain cells send and receive chemical messages, which in turn boosts mood." <sup>6</sup>

From an Ayurvedic standpoint, we would seek to treat this condition not from a symptomatic basis but rather from it's roots, which we would view as a vitiated (disturbed) or even deranged Vata dosha. More specifically, we would look to Vyana and Prana vayu as the base of the suffering, creating too much movement in the mind and nervous system. By first assessing the diet, we would ensure that the foods taken in had the qualities necessary to pacify Vata dosha. These would be categorized as heavy, moist, warm and examples could include kitchadi, mung-dahl, root vegetable soups and spiced oatmeals. We would also assess lifestyle practices, often implementing self-care routines such a abhyanga, (application of warmed, doshic-appropriate oils prior to bathing) meditation, and rest to calm the winds of Vata (Prana and Vyana Vayu) and elevate Ojas (our essential life energy). Eliminating stress, increasing joy and actively pursuing ones Dharma can all have a profound and lasting affect on Anxiety.<sup>7</sup> We would also seek herbs with the properties and qualities necessary and appropriate to treat the underlying cause as well as create symptomatic relief for the patient.

Though many Ayurvedic herbs can be sited for their benefits in reducing Vata vitiation and quelling the nervous system such as ashwagandha, jatamamsi and shatavari, no Ayurvedic herb can contest with the depth of history and range of abilities associated with Cannabis. Referred to in 1894 by the Indian Hemp Drugs Commission as "the penicillin of Ayurveda" <sup>8</sup>, it was cited in the Atharva Veda as "as one the five most sacred plants on Earth and says that a guardian angel resides in its leaves. It also refers to it as a "source of happiness," a "joy-giver" and a "liberator". <sup>9</sup>

In India, Cannabis was historically used by Brahmins and Sadhus to induce both relaxation and altered states of consciousness, which were beneficial for them in deep meditation. As alcohol was deemed taboo and Tamasic, therefore making it an inappropriate choice for the highest of Castes, these Holy men would utilize this herb in several different forms to suit their needs. The inhaling of smoke from Marijuana Hash was a common practice, as well as the ingestion of a concoction of milk, spices and the leaves of the Cannabis plant, also known as Bhang. This beverage has stood the test of time and is still widely consumed in India during the Holi Festival. The traditional preparation of Bhang would include the following<sup>10</sup>:

Ingredients:

2 cups water

4 cups warm milk

1/2 to 1 teaspoon rosewater

1oz bud

3/4 to 1 cup sugar

2 tablespoons blanched, chopped almonds

1/8 teaspoon garam masala (blend of black pepper, cardamom, caraway seed, clove, cinnamon, bay leaf, nutmeg, mace, cumin seed, coriander, and saffron – varies between brands)

1/4 teaspoon ginger powder

Consumption of this drink was said to deliver the consumer to spiritual enlightenment by peeling back the layers of consciousness and revealing one's true nature.

Regarded as a Schedule 1 drug in the United States, giving it no medicinal value in the eyes of the Government, the use of cannabis in Western culture is not as widely used in a mainstream setting as we see in India. Patients seeking to use Cannabis legally in the US and Canada must first obtain a prescription from a licensed medical professional prior to purchasing any of the herb and then must purchase from a licensed dispensary or producer.<sup>11</sup>

When used with the focussed intention of healing, Medical Cannabis has been shown to alleviate symptoms associated pain, neuropathy, relief from stress, decreased nausea and relief from insomnia. <sup>12</sup> In order to further understand the nature of Cannabis and it's specific potential

for medicinal usage in the treatment of Anxiety, we must first look to the two main chemical components with Cannabis: tetrahydrocannabinol (THC) and Cannabidiol (CBD). To understand the true nature and potency of this plant, a clear view of each of these chemicals is needed, particularly creating a clear treatment protocol for utilizing this ancient Ayurvedic Herb.

Tetrahydrocannabinol (THC), is the chemical constituent responsible for the psychoactive response within the mind and body. It attaches to Cannabinoid receptor sites within the brain which are responsible for pleasure, relaxation, memory and time perception. As THC attaches to these sites and activates them, it creates a cascade affect of relaxation and nervine sedation.<sup>13</sup> THC is also responsible for creating a dopamine response in brain cells, giving the consumer a sense of euphoria and ease, though in a higher dosage, one may experience symptoms of anxiety, panic and hallucinate.<sup>14</sup> Ingestion of THC also affects the hippocampus, the portion of the brain associated with memory formation. Though there is a common belief that Cannabis usage, in particular strains with higher levels of THC negatively affect short-term memory, one study from the University of Saskatchewan has found evidence of neurogenesis as a result of consuming THC.<sup>15</sup> Because of it's anti-emetic abilities, Cannabis with high levels of THC is also used in conjunction with chemotherapy treatments, serving to increase the agni of the patient and decrease nausea. These qualities have also made this herb incredibly valuable when treating end-stage AIDS patients.<sup>16</sup>

Cannabidiol (CBD) is the chemical constituent within Cannabis responsible for nervine sedation within the body and nervous system and has been shown to have a powerful affect on seizure conditions and spasmodic episodes in the body. In a study on the effects of enriched Cannabidiol cannabis on children with seizure disorders such as epilepsy, 84% of parents reported decreased seizure activity and of those, 11% reported complete freedom of seizures in their children.<sup>17</sup>

CBD blocks the THC chemical's ability to bind the cannabinoid receptor sites in the brain, somewhat mitigating the psychotropic effects of THC, lessening possible feelings of anxiety, overwhelm and panic often associated with consuming Marijuana. CBD does however have an effect on the consciousness of the consumer, though not in a psychotropic way. Due to it's highly sedative nature, CBD is often used in a medicinal setting when treating conditions such as anxiety, PTSD, epilepsy and as an anti-psychotic.<sup>18</sup> Specifically regarding the usage of CBD in the treatment of anxiety, one study shows "In agreement with the results obtained in animal models, clinical studies confirmed that CBD has anxiolytic properties. Following the initial

report that it blocks the anxiogenic effects of high doses of the main psychoactive compound present in the *Cannabis sativa* plant,  $\Delta$ 9-tetrahydrocannabinol (THC), it was demonstrated that CBD can also reduce anxiety in healthy volunteers during a neuro-imaging study or after a simulated public-speaking procedure. More recently, using the latter procedure, Bergamaschi showed that CBD (600 mg p.o.) decreases anxiety in treatment-naïve social phobic patients.”<sup>19</sup> As so clearly stated in this study, CBD does in fact have the potential to pacify the nervous system and induce a state of relaxation without the challenging affects of THC on the nervous system and psyche.

From an Ayurvedic perspective, we would view CBD as having a direct affect on Prana and Vyana vayu. In displaying it's nervine tonic and nervine sedative qualities, we would look to CBD-rich Cannabis as a viable treatment option in cases of Vata vitiation and/or derangement, sourcing it's unique ability to induce relaxation and prompt a para-sympathetic response in the body. Ayurveda always seeks to determine the root cause of suffering, be it an external factor due to Vikruti or an in-born factor attributed to Prakruti and in so can treat not only the symptoms but alleviate the original source of imbalance. Sushruta recognized that acute-fear and anxiety, as well as panic and overwhelm all return back to the core concept of Unmada, or insanity. He depicts the condition of Unmada as "a derangement of bodily Doshas affecting the up-coursing nerves and thereby producing a distracted state of Manas (mind)."<sup>20 21</sup> We can see the sub-doshas Prana and Vyana at play here, specifically as they increase activity in the nervous system or Majjavaha srota, as well as stimulation of the mind, or the Manovaha srota.

If, from an Ayurvedic perspective, we regard the body and mind as being a place where both health and disease dwell in equal parts,<sup>22</sup> then we begin to see that the treatment of anxiety must be met on both levels, body and mind. If we seek to treat anxiety simply from a symptomatic basis, we can see the potential for misuse of this herb, particularly when considering the implications of addiction with this substance. Some studies suggest that, particularly in adolescents aged 18 and younger, use of Cannabis can have an adverse affect on brain growth and development.<sup>23</sup> Lower cognitive function, impaired memory and general IQ decline were all attributed to long-term adolescent use of Cannabis in this study. While these facts are troublesome at the least, based on the science-backed research citing CBD as a contributing factor in neurogenesis, one may be inclined to see this particular study conducted once more while factoring in levels of THC vs. CBD. Furthermore, in cases where Cannabis use has been accused of “causing” psychiatric conditions such as schizophrenia, one study posits

“Cannabis use alone is not necessary or sufficient to cause the development of schizophrenia, which suggests that the association may be because of a genetic vulnerability to the effects of cannabis. In support of this, patients with schizophrenia or with an established vulnerability to psychosis are much more sensitive to the effects of cannabis than control subjects”.<sup>24</sup>

If we view this statement from an Ayurvedic perspective, we go back to the concept of Prakruti as being the Nidana or cause of the suffering. The usage of Cannabis did not cause the condition, it merely highlighted a pre-existing condition within the brain and nervous system. The potentially high concentration of THC would serve as a catalyst in drawing that condition to the surface and creating suffering and unmada in the consumer. This statement also features a hallmark of Ayurveda, in that it refers to the “established vulnerability” of the subject, which can be directly compared to identifying of the dominant dosha within a patient's constitution and recognizing any inherent weaknesses that may surface as a result.

In the case of a Vata dominant individual, they are going to be most susceptible to conditions associated with imbalances in the nervous system and in particular anxiety and worry. In treating a Vata-vitiating patient, we would first examine the diet and lifestyle practices currently in use, to determine what, if any, may be causing suffering. By incorporating daily routines and self-care rituals, we begin to pacify Vata dosha and engage the parasympathetic nervous system. In eating foods that are cooked, warm, nourishing and well-spiced, we draw up the agni (digestive fire) and create a more grounded base from which to move from. Using Yoga asanas that are focused on the extension and flexion of the pelvis help to calm and soothe the site of Vata in the body and utilizing meditation techniques such as japa and Yoga Nidra serve to slow the movement of the mind, or parinama. Breathing techniques in conjunction with mantra repetition help to steady the inner gaze and slow nervous system response, therefore mitigating a panic response.

While all 3 doshas can and do experience feelings of anxiety, worry or overwhelm, they each manifest in a different and specific way according to the element out of balance. Vatas, due to the moveable quality of their nature, are most likely to experience heart palpitations, tremors and numbness/tingling of extremities when in a nervous system response. Pittas will experience overwhelm and worry often associated with incompleteness of tasks or feeling out of control. This will often manifest into ulcers, rashes and excessive sweating. Kaphas also experience feelings of worry and fear, though it is most often associated with melancholy and

disappointment. They are most likely to be driven to inertia and mild depression if faced with anxiety-inducing stressors.

If we view anxiety as being rooted in the over-stimulation (Vyana Vayu) of the nervous system, resulting in heart palpitations, arrhythmias, increased heart rate and tremors and in the overstimulation of the mind (Prana Vayu) resulting in circular thinking, worry, overwhelm and the propensity to project our worries into the future, then when choosing an herb to treat these symptoms, we must look for the qualities necessary to counteract suffering. Warm, heavy, moist, and stable would be necessary, as well as the ability to have a tonifying or sedative affect on the nervous system as a whole.

Though a general view of Cannabis would be that it has the qualities of hot, dry and mobile, when we observe the difference in medicinal affect of THC vs CBD, we can see that Cannabis strains that are CBD dominant or enriched exhibit the qualities we would be seeking to treat Vata-type anxiety. In a study observing the effects of THC dominant Cannabis vs. CBD dominant Cannabis, the results were irrefutable. "*Cannabis* users reported the reduction of anxiety as one of the motivations for its use; on the other hand, episodes of intense anxiety or panic are among the most common undesirable effects of the drug. These apparently conflicting statements may partly reflect the fact that low doses of the best-known constituent of the plant,  $\Delta 9$ -tetrahydrocannabinol ( $\Delta 9$ -THC), engender anxiolytic-like effects, whereas higher doses produce anxiogenic reactions".<sup>25</sup> This illustrates the difficulty some patients face when choosing alternative methods to treat their anxiety. While Cannabis is widely known for its relaxing, sedative qualities, consumers are also aware that they run the risk of exacerbating their symptoms. The study goes on to state "Moreover, other components of the plant can influence its pharmacological activity; in particular, cannabidiol (CBD), one major non-psychotomimetic compound of the plant, has psychological effects substantially different from those of  $\Delta 9$ -THC (bib42Zuardi, 2008). Oral administration of CBD to healthy volunteers has been shown to attenuate the anxiogenic effect of  $\Delta 9$ -THC and does not seem to involve any pharmacokinetic interactions". This statement seems to confirm that usage of CBD dominant Cannabis can alleviate symptoms of Social Anxiety without the added complications of paranoia and fear that often accompany a THC based strain.

With these 2 very different and at times opposing qualities of CBD and THC it can be challenging for a potential consumer to know which to choose and how to be sure what they are

consuming is indeed going to prove medicinal for them. In certain countries, issues of legality force potential consumers into the dangerous and unpredictable world of street-based purchasing of this herbal medication.

Due to recent changes within the legal system of Canada and regarding the legal status of Marijuana, a potential Medical Marijuana user has two options in sourcing a strain of Cannabis that will be appropriate for their condition in a legal manner. One option is to obtain a letter from their Medical Doctor, confirming that they do in fact have anxiety and have been actively trying to manage it. The patient can then take this to a local dispensary and present it to the dispensary agent for confirmation. If the patient meets the dispensary's requirements, they then become a registered patient, receiving a card and access to the in-house strains available. Often within a dispensary setting, these strains are more THC-based, carrying higher concentrations which would not be appropriate for a patient presenting with Anxiety. The second option is to locate a Doctor who specializes in Medical Marijuana and licensing of users. This option requires the patient to again, acquire confirmation from their Medical Doctor, confirming that they suffer with Anxiety and are actively trying to manage it. At this point, that document is forwarded on to the Medical Marijuana Specialist, where they determine if said patient is a viable candidate for Medical Marijuana through a series of interviews and background checks. Should the potential patient clear all checks and pass the interview process, they become a legal Medical Marijuana recipient, are assigned to a Licensed Producer who answers to the Federal government and are given a prescription, allowing them to purchase up to a prescribed amount of Cannabis monthly. Because the Canadian government views this as a legal and binding medical agreement, the patient is then allowed to travel freely with their Medical Marijuana, providing they carry their original prescription as proof with them at all times.

As Ayurvedic Practitioners, our job first and foremost is to provide care to our patients without judgment or our own samskaras coloring our perception. There are widely varied opinions both in the allopathic and alternative healing communities regarding Cannabis therapy that can create a divide and sense of shame around sourcing this plant medicine in ones healing journey. This shame and fear only serves to further ones decent into Vata overwhelm and defeat. As stated in the Charaka Samhita, "When the ojas is diminished, the person is fearful, weak, always worried, having disorders in sense organs, deranged lustre and mental ability, rough and emaciated"<sup>26</sup> If we as practitioners can see ourselves as front-line workers in the quest to build Ojas in our patients, then the first act of love we should extend is to listen

without judgment and validate our patient in both their fears and curiosity into this ancient healing herb. Though we must practice within our scope and abide by local law, one must posit based on the evidence provided here that Cannabis, and more specifically Cannabidiol enriched Cannabis has innate healing properties that have the capability to create lasting harmony and peace in the minds and hearts of our patients. One may also go on to note that if these Cannabinoid receptors exist in the brain as an extension of our Endocannabinoid system, perhaps we are hard-wired to rely on the ancient medicine for healing. Perhaps our bodies and brains evolved to live in harmony and relationship with the Cannabis plant and perhaps we create massive disservice when criminalizing one of nature's most potent remedies.

In closing we turn to the words immortalized in the Charaka Samhita, which perfectly illustrate not only our role as Practitioners, but also the role that medicine should and does play in the health and well-being of our patients. "Only that which can bring about health is a proper medicine. And it is only he who is the best of physicians who can free (his patients) from diseases. The success in all endeavors (in curing illness) comes from correct application (of medicine) and from (the presence) of (such) a highly trained physician endowed with the all (necessary) qualities." <sup>27</sup>

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