

Minnesota Medical Cannabis Program
Petition to Add a Qualifying Medical Condition

Section A: Petitioner's Information			
Name (First, Middle, Last): [REDACTED]			
Home Address (including Apartment or Suite #): [REDACTED]			
City: [REDACTED]		State: MN	Zip Code: [REDACTED]
Telephone Number: [REDACTED]		E-mail Address: [REDACTED]	

Section B: Medical Condition You Are Requesting Be Added
Please specify the name and provide a brief description of the proposed qualifying medical condition. Be as precise as possible in identifying the condition. Optional: Include diagnostic code(s), citing the associated ICD-9 or ICD-10 code(s), if you know them. <i>Attach additional pages as needed.</i>
See attached.

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Section C: Symptoms of the Proposed Medical Condition and/or Its Treatment

Describe the extent to which the proposed qualifying medical condition or the treatments cause suffering and impair a person's daily life. *Attach additional pages if needed.*

See attached.

Section D. Availability of conventional medical therapies

Describe conventional medical therapies available and the degree to which they ease the suffering caused by the proposed qualifying medical condition or its treatment. *Attach additional pages if needed.*

See attached.

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Section E: Anticipated benefits from Medical Cannabis

Describe the anticipated benefits from the medical use of cannabis specific to the proposed qualifying medical condition. *Attach additional pages if needed.*

See attached.

Section F (optional): Scientific Evidence of Support for Medical Cannabis Treatment

It will strengthen your petition to include evidence generally accepted by the medical community and other experts supporting the use of medical cannabis to alleviate suffering caused by the proposed medical disease or its treatment. This includes but is not limited to full text, peer-reviewed published journals or other completed medical studies. Please attach complete copies of any article or reference, not abstracts.

I have attached relevant articles. (check box if you have attached scientific articles or studies)

Section G (optional): Letters in Support of Adding the Medical Condition

Attach letters of support for the use of medical cannabis from persons knowledgeable about the proposed qualifying medical condition, such as a licensed health care professional.

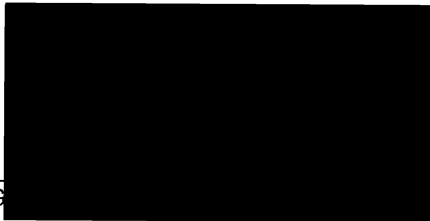
I have attached letters of support. (check box if you have attached letters of support)

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Section H: Acknowledgement and Signature

Please Note: Any individually identifiable health information relating to any past, present, or future health condition or health care contained in this Petition is classified as a health record under Minnesota Statutes §144.291, and is not subject to public disclosure.

I certify that the information provided in this petition is true and accurate to the best of my knowledge.



SIG

7/26/18
DATE (mm/dd/yyyy)

To obtain this information in a different format, call:
(651) 201-5598 in the Metro area and (844) 879-3381 in the Non-metro.

B. Medical Condition You Are Requesting Be Added

This petition proposes that panic disorder (episodic paroxysmal anxiety, ICD-10 F41.0) be recognized as a qualifying condition to receive medical cannabis under subdivision 14 of the Minnesota Statutes section 152.22.

Panic disorder is an anxiety disorder where people have unexpected panic attacks, characterized by symptoms included, but not limited to intense anxiety, increased heart rate, fear, palpitations, and shortness of breath.¹ These episodes typically last between 5-10 minutes. These severe, episodic attacks differentiate panic disorder from the baseline, general anxiety experienced by those suffering from generalized anxiety disorder, though people may have both disorders.

Panic disorder is a common disorder, impacting 3.4% of the general population in the United States.² It is twice as common in women compared to men. Untreated panic disorder can have a profound negative impact on a person's life, forcing them to avoid situations that may cause a panic attack. Several treatments for panic disorder exist, though they are not effective for all and often have considerable side effects. Medical cannabis would provide an additional, safe way for those who are suffering from panic disorder to treat their symptoms.

C. Symptoms of the Proposed Medical Condition and/or its Treatment

Panic disorder can have a profound impact on a person's daily life and negatively impact their ability to enjoy life to its fullest. Many people who suffer from panic disorder have attacks that are triggered from being in a certain situation, such as being under a great deal of stress. Others have attacks that are completely unexpected and are not situation dependent. In either case, a panic attack is debilitating and can be extremely distressing.

One tool physicians use to determine the severity of a patient's panic disorder is the Panic Disorder Severity Scale, or PDSS.³ For the purposes of the questionnaire, they define a panic attack as a sudden rush of fear or discomfort, accompanied by at least four of the following symptoms: rapid or pounding heartbeat, sweating, trembling or shaking, breathlessness, feeling of choking, chest pain or discomfort, nausea, dizziness or faintness, feelings of unreality, numbness or tingling, chills or hot flushes, fear of losing control or going crazy, and fear of dying.³ The symptoms of panic attacks can be varied and manifest differently in every patient, but the common thread is that they are sudden in their onset and extremely unpleasant.

In severe cases of panic disorder, patients can have panic attacks daily, even sometimes more than once a day. When afflicted by a panic attack, the patient is incapacitated by their symptoms and it can take hours for a patient to return to their baseline. Many of these patients are on pharmaceuticals, discussed in section D, that have a variety of side effects that effect their quality of life greatly.

People with panic disorder often find their attacks are set off by a certain set of circumstances or stimuli. It can be helpful to patients to identify these situations so they can be avoided, but for many people, avoiding these situations requires significant modifications to their lifestyle. For example, a patient who experiences a panic attack from riding in a car may elect to forego travelling by car at all, which is a significant decrease in quality of life. Similarly, a patient who has panic attacks when confronted with social situations may elect to avoid social situations altogether, remaining at home and not interacting with the outside world.

D. Availability of Conventional Medical Therapies

A wide variety of conventional medical therapies are available to treat panic disorder. These treatments include a variety of therapies and medication, and can vary in efficacy, side effect profile, and long-term viability, but many patients who do undergo these treatments successfully manage their symptoms. This section will explain some of the most commonly used treatments for panic disorder, along with some of the positives and negatives for those treatments.

- Psychotherapy is one of the most common forms of treatment for panic disorder,⁵ and one of the most common types of psychotherapy used is cognitive behavioral therapy, or CBT. One of the primary outcomes of CBT is to help a patient restructure their thought processes and the way they respond to a situation that causes a panic attack, allowing them to manage those feelings and avoiding triggering a panic attack. This is most helpful in patients who can identify a situation or feeling that causes a panic attack, but less effective when a patient cannot easily identify that situation. A large meta-analysis also found that the quality of evidence from many of the studies supporting CBT against other forms of psychotherapy was "low to very low".⁵ Additionally, there are barriers to accessing therapy for many patients, including cost, availability, and time. While CBT can be greatly valuable to many people, some people simply do not respond as well to therapy, making this an inadequate option for them.
- Selective serotonin reuptake inhibitors, or SSRIs, are the first line pharmaceutical treatment for panic disorder. A similar These medications have a wide range of indications, including depression, obsessive-compulsive disorder, general anxiety disorder and panic disorder. SSRIs can reduce anxiety and reduce the number of panic attacks experienced. However, SSRIs have an extensive side effect profile, some of them quite serious. Side effects can include suicidal ideation, sexual dysfunction, and serotonin syndrome, among others. Many people do not tolerate SSRIs and would prefer another treatment option. Of note, SNRIs (serotonin-norepinephrine reuptake inhibitors), a similar class of medication as SSRIs, are also commonly used to treat panic disorder. They have a similar side effect profile compared to SSRIs.

- Benzodiazepines are an anxiolytic medication used to treat panic disorder. These medications differ from SSRIs in that they have a rapid onset of action, which can be helpful in treating a breakthrough panic attack.⁶ Many people experience great relief from panic attacks through benzodiazepine use, but patients can develop tolerance and dependence to these medications, which makes them a poor long-term option. Benzodiazepine addiction has become a large part of the increasing overdose epidemic, and between 2001 and 2015, benzodiazepine overdose deaths increased by a factor of 4.3.⁷ Additionally, they are a sedating medication, which can help abate some of the symptoms associated with panic disorder but can greatly interfere with quality of life.

These are the most common treatments for panic disorder, but not an exhaustive list. Many of the treatments listed above are not completely effective or contain significant side effect profiles or addiction concerns.

E. Anticipated Benefits from Medical Cannabis

Medical cannabis would offer those suffering from panic disorder a new option to help manage their symptoms and improve quality of life by reducing the amount of panic attacks suffered. Conventional therapies are effective for some, but not all, and cannabis is an option for patients who do not tolerate or do not respond to traditional first-line therapies. This section will focus on medical cannabis' ability to be used as a fast-acting medication, its ability to reduce baseline anxiety and literature that supports the use of medical cannabis in treating panic disorder.

Medical cannabis is a fast-acting medication that can prevent panic attacks from reaching their maximum intensity. This hypothesis is supported by two well-researched and documented facts: cannabis is an anxiolytic, and cannabis is fast acting.^{8,10} A recent literature review found that "existing preclinical evidence strongly supports CBD as a treatment for generalized anxiety disorder, panic disorder" and that "evidence from human studies supports an anxiolytic role of CBD".¹⁰ The researchers note that the studies reviewed were largely limited to acute dosing.

A different literature review cited studies that found that 38% of a sample of California medical cannabis patients had relief of their anxiety, and 17% had relief of panic symptoms. This was a sample of patients who were seeking cannabis therapies for a variety of reasons, not solely generalized anxiety disorder or panic disorder. Recent research has also suggested that the endocannabinoid system would work as a target for novel anxiolytic drugs, and there have been wide spread calls for more research into the relationship between the endocannabinoid system and psychiatric disease.¹¹

Panic disorder is frequently treated by a variety of antidepressants, most commonly SSRIs. Cannabidiol has now been shown to mimic some antidepressant effects, and depression has a high comorbidity with panic disorder.¹² Recently published research shows that cannabidiol "induces fast and sustained antidepressant-like effect in distinct animal models

relevant for depression.”¹³ An interesting aspect of this research is that not only did CBD show antidepressant-like effects, but did so quickly – 30 minutes after treatment with CBD.¹² This is in contrast with traditional antidepressants, including ones commonly used to treat panic disorder, which can take weeks or longer to reach their full therapeutic potential. Cannabis could replicate some of these effects, without the side effects of other antidepressants. Another study found that the endocannabinoid system is downregulated in mice that undergo chronic, unpredictable stress.¹⁴ They found that both CB1 receptor expression and 2-arachidonylglycerol(2-AG, an endocannabinoid) were downregulated in these mice. The researchers concluded that this down regulation “contributes to problems in behavioral flexibility.”¹³ Medical cannabis could help reverse this process and improve behavioral flexibility.

Medical cannabis being used to treat mental illness is common and has a precedent in Minnesota with the approval of post-traumatic stress disorder last year. A recent review of data from the National Epidemiologic Survey on Alcohol and Related Conditions found that many people nationwide already use cannabis as a way to self-medicate for panic disorder, and additionally, cannabis use was not increased with increased incidence of any anxiety disorder.¹⁵ The same argument that makes medical cannabis a reasonable approach to treat PTSD can be applied to panic disorder: traditional first-line therapies are not effective or tolerable for many patients, and medical cannabis is a safe alternative that can be used to manage this disorder.

F. Scientific Evidence of Support for Medical Cannabis Treatment

A selection of studies cited in this petition have been attached.

References

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