

MMP-052

New Jersey Department of Health
Medicinal Marijuana Program
PO 360
Trenton, NJ 08625-0360

MEDICINAL MARIJUANA PETITION
(N.J.A.C. 8:64-5.1 et seq.)

INSTRUCTIONS

This petition form is to be used only for requesting approval of an additional medical condition or treatment thereof as a "debilitating medical condition" pursuant to the New Jersey Compassionate Use Medical Marijuana Act, N.J.S.A. 24:6I-3. Only one condition or treatment may be identified per petition form. For additional conditions or treatments, a separate petition form must be submitted.

NOTE: This Petition form tracks the requirements of N.J.A.C. 8:64-5.3. Note that if a petition does not contain all information required by N.J.A.C. 8:64-5.3, the Department will deny the petition and return it to petitioner without further review. For that reason the Department strongly encourages use of the Petition form.

This completed petition must be postmarked August 1 through August 31, 2016 and sent by certified mail to:

New Jersey Department of Health
Office of Commissioner - Medicinal Marijuana Program
Attention: Michele Stark
369 South Warren Street
Trenton, NJ 08608

Please complete each section of this petition. If there are any supportive documents attached to this petition, you should reference those documents in the text of the petition. If you need additional space for any item, please use a separate piece of paper, number the item accordingly, and attach it to the petition.

1. Petitioner Information

Name: _____
Street Address: _____
City, State, Zip: _____
Telephone Number: _____
Email Address: _____

2. Identify the medical condition or treatment thereof proposed. Please be specific. Do not submit broad categories (such as "mental illness").

Fibromyalgia

3. Do you wish to address the Medical Marijuana Review Panel regarding your petition?

Yes, in Person
 Yes, by Telephone
 No

4. Do you request that your personally identifiable information or health information remain confidential?

Yes
 No

If you answer "Yes" to Question 4, your name, address, phone number, and email, as well as any medical or health information specific to you, will be redacted from the petition before forwarding to the panel for review.

RECEIVED

SEP 6 2016

OFFICE OF THE
CHIEF OF STAFF

MEDICINAL MARIJUANA PETITION
(Continued)

5. Describe the extent to which the condition is generally accepted by the medical community and other experts as a valid, existing medical condition.

Fibromyalgia is defined as a disorder characterized by widespread musculoskeletal pain accompanied by fatigue, sleep, memory and mood issues. Fibromyalgia amplifies pain sensations by affecting the way your brain processes its pain signals.

6. If one or more treatments of the condition, rather than the condition itself, are alleged to be the cause of the patient's suffering, describe the extent to which the treatments causing suffering are generally accepted by the medical community and other experts as valid treatments for the condition.

All of the conventionally prescribed medications for fibromyalgia have severe adverse side effects including but not limited to... SEE ATTACHED PAGES

7. Describe the extent to which the condition itself and/or the treatments thereof cause severe suffering, such as severe and/or chronic pain, severe nausea and/or vomiting or otherwise severely impair the patient's ability to carry on activities of daily living.

SEE ATTACHED PAGES

8. Describe the availability of conventional medical therapies other than those that cause suffering to alleviate suffering caused by the condition and/or the treatment thereof.

SEE ATTACHED PAGES

9. Describe the extent to which evidence that is generally accepted among the medical community and other experts supports a finding that the use of marijuana alleviates suffering caused by the condition and/or the treatment thereof. [Note: You may attach articles published in peer-reviewed scientific journals reporting the results of research on the effects of marijuana on the medical condition or treatment of the condition and supporting why the medical condition should be added to the list of debilitating medical conditions.]

SEE ATTACHED PAGES

MEDICINAL MARIJUANA PETITION
(Continued)

10. Attach letters of support from physicians or other licensed health care professionals knowledgeable about the condition. List below the number of letters attached and identify the authors.

I certify, under penalty of perjury, that I am 18 years of age or older; that the information provided in this petition is true and accurate to the best of my knowledge; and that the attached documents are authentic.

Signature of Petitioner [Redacted]	Date 8/31/16
---------------------------------------	-----------------

6.

ZOLOFT

GENERIC NAME : SERTRALINE

SSRI

"Check with your doctor immediately if any of the following side effects occur:"

More common

- Decreased sexual desire or ability
- Failure to discharge semen

Less common or rare

- Aggressive reaction
- breast tenderness or enlargement
- confusion
- convulsions
- diarrhea
- drowsiness
- dryness of the mouth
- Fast talking and excited feelings or actions that are out of control
- fever
- inability to sit still
- increase in body movements
- increased sweating
- increased thirst
- lack of energy
- loss of bladder control
- mood or behavior changes
- muscle spasm or jerking of all extremities
- nosebleeds
- overactive reflexes
- racing heartbeat
- red or purple spots on the skin
- restlessness
- shivering
- skin rash, hives, or itching
- sudden loss of consciousness
- unusual or sudden body or facial movements or postures
- unusual secretion of milk (in females)

"Check with your health care professional if any of the following side effects continue or are bothersome or if you have any questions about them:"

More common

- Acid or sour stomach
- belching
- decreased appetite or weight loss
- diarrhea or loose stools

- heartburn
- sleepiness or unusual drowsiness
- stomach or abdominal cramps, gas, or pain
- trouble sleeping
- Less common
- Agitation, anxiety, or nervousness
- bladder pain
- burning, crawling, itching, numbness, prickling, "pins and needles", or tingling feelings
- changes in vision
- cloudy urine
- constipation
- difficult, burning, or painful urination
- flushing or redness of the skin, with feeling of warmth or heat
- frequent urge to urinate
- increased appetite
- pain or tenderness around the eyes and cheekbones
- Stuffy or runny nose

SITE -- http://www.ncbi.nlm.nih.gov/pubmedhealth/PMHT0012108/?report=details#side_effects

PROZAC

GENERIC NAME : FLUOXETINE

SSRI

"Check with your doctor immediately if any of the following side effects occur:"

More common

- Hives, itching, or skin rash
- inability to sit still
- restlessness

Less common

- Chills or fever
- joint or muscle pain

Rare

- Anxiety
- cold sweats
- confusion
- convulsions (seizures)
- cool pale skin
- diarrhea
- difficulty with concentration
- drowsiness
- dryness of the mouth
- excessive hunger
- fast or irregular heartbeat
- headache
- increased sweating
- increased thirst
- lack of energy
- mood or behavior changes

- overactive reflexes
- purple or red spots on the skin
- racing heartbeat
- shakiness or unsteady walk
- shivering or shaking
- talking, feeling, and acting with excitement and activity you cannot control
- trouble with breathing
- unusual or incomplete body or facial movements
- unusual tiredness or weakness

"Check with your health care professional if any of the following side effects continue or are bothersome or if you have any questions about them:"

More common

- Decreased appetite

Less Common or Rare

- Abnormal dreams
- breast enlargement or pain
- change in sense of taste
- changes in vision
- feeling of warmth or heat
- flushing or redness of the skin, especially on face and neck
- frequent urination
- hair loss
- increased appetite
- increased sensitivity of the skin to sunlight
- menstrual pain
- stomach cramps, gas, or pain
- unusual secretion of milk, in females
- weight loss
- yawning

SITE-- http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0045765/#DDIC600689.side_effects_section

PAXIL

GENERIC NAME : PAROXETINE

SSRI

"Check with your doctor immediately if any of the following side effects occur:"

Less common

- Agitation
- chest congestion
- chest pain
- chills
- cold sweats
- confusion
- difficulty with breathing
- dizziness, faintness, or lightheadedness when getting up from a lying or sitting position
- fast, pounding, or irregular heartbeat or pulse
- Muscle pain or weakness
- Skin rash

Rare

- Absence of or decrease in body movements
- bigger, dilated, or enlarged pupils(black part of the eye)
- convulsions (seizures)
- difficulty with speaking
- dry mouth
- fever
- inability to move the eyes
- Incomplete, sudden, or unusual body or facial movements
- increased sensitivity of the eyes to light
- poor coordination
- red or purple patches on the skin
- restlessness
- shivering
- sweating
- talking, feeling, and acting with excitement and activity you cannot control
- trembling or shaking, or twitching

"Check with your health care professional if any of the following side effects continue or are bothersome or if you have any questions about them:"

More common

- Acid or sour stomach
- belching
- decreased appetite
- decreased sexual ability or desire
- heartburn
- pain or tenderness around the eyes and cheekbones
- passing gas
- problems with urinating
- runny or stuffy nose
- sexual problems, especially ejaculatory disturbances
- sleepiness or unusual drowsiness
- stomach discomfort or upset
- trouble sleeping

Less Common

- Abnormal dreams
- change in sense of taste
- congestion
- discouragement, feeling sad, or empty
- drugged feeling
- fast or irregular breathing
- feeling of unreality
- headache, severe and throbbing
- increased appetite
- itching of the vagina or genital area
- itching, pain, redness, or swelling of the eye or eyelid
- lack of emotion
- loss of interest or pleasure

- lump in the throat
- menstrual changes
- pain during sexual intercourse
- problems with memory
- sense of detachment from self or body
- sneezing
- Thick, white vaginal discharge with no odor or with a mild odor
- tightness in the throat
- tingling, burning, or prickling sensations
- trouble concentrating
- voice changes
- watering of the eyes
- weight loss
- yawn

SITE-- http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0045212/#DDIC601687.side_effects_section

ALEVE

GENERIC NAME : NAPROXEN

NSAID

"Check with your doctor immediately if any of the following side effects occur:"

More common

- Belching
- bruising
- difficult or labored breathing
- feeling of indigestion
- headache
- itching skin
- large, flat, blue, or purplish patches in the skin
- pain in the chest below the breastbone
- shortness of breath
- skin eruptions
- stomach pain
- swelling
- tightness in the chest
- wheezing

Less common

- Bloating
- bloody or black, tarry stools
- blurred or loss of vision
- burning upper abdominal or stomach pain
- cloudy urine
- constipation
- decrease in urine output or decrease in urine-concentrating ability
- disturbed color perception
- double vision
- fast, irregular, pounding, or racing heartbeat or pulse
- halos around lights

- indigestion
- loss of appetite
- nausea or vomiting
- night blindness
- overbright appearance of lights
- pale skin
- pinpoint red or purple spots on the skin
- severe and continuing nausea
- severe stomach burning, cramping, or pain
- skin rash
- swelling or inflammation of the mouth
- troubled breathing with exertion
- tunnel vision
- unusual bleeding or bruising
- unusual tiredness or weakness
- vomiting of material that looks like coffee grounds
- weight loss

Rare

- Anxiety
- back or leg pains
- bleeding gums
- blindness
- blistering, peeling, or loosening of the skin
- blood in the urine or stools
- blue lips and fingernails
- canker sores
- change in the ability to see colors, especially blue or yellow
- chest pain or discomfort
- clay-colored stools
- cold sweats
- coma
- confusion
- cool, pale skin
- cough or hoarseness
- coughing that sometimes produces a pink frothy sputum
- cracks in the skin
- darkened urine
- decreased vision
- depression
- diarrhea
- difficult, burning, or painful urination
- difficult, fast, or noisy breathing
- difficulty with swallowing
- dilated neck veins
- dizziness
- dry cough
- dry mouth

- early appearance of redness, or swelling of the skin
- excess air or gas in the stomach
- extreme fatigue
- eye pain
- fainting
- fever with or without chills
- fluid-filled skin blisters
- flushed, dry skin
- frequent urination
- fruit-like breath odor
- greatly decreased frequency of urination or amount of urine
- hair loss
- high fever
- hives
- increased hunger
- increased sensitivity of the skin to sunlight
- increased sweating
- increased thirst
- increased urination
- increased volume of pale, dilute urine
- irregular breathing
- joint or muscle pain
- large, hive-like swelling on the face, eyelids, lips, tongue, throat, hands, legs, feet, or sex organs
- late appearance of rash with or without weeping blisters that become crusted, especially in sun-exposed areas of skin, may extend to unexposed areas
- light-colored stools
- lightheadedness
- loss of heat from the body
- lower back or side pain
- nervousness
- nightmares
- no blood pressure
- no breathing
- no pulse
- nosebleeds
- numbness or tingling in the hands, feet, or lips
- pain in the ankles or knees
- pain or burning in the throat
- pain or discomfort in the arms, jaw, back, or neck
- painful, red lumps under the skin, mostly on the legs
- pains in the stomach, side, or abdomen, possibly radiating to the back
- pale or blue lips, fingernails, or skin
- pounding in the ears
- puffiness or swelling of the eyelids or around the eyes, face, lips, or tongue
- rapid, shallow breathing
- red, irritated eyes
- red skin lesions, often with a purple center

- red-green color blindness
- redness or other discoloration of the skin
- redness, swelling, or soreness of the tongue
- scaly skin
- seizures
- severe sunburn
- shakiness
- skin thinness
- slurred speech
- sneezing
- sore throat
- sores, ulcers, or white spots on the lips or tongue or inside the mouth
- sores, welting, or blisters
- spots on your skin resembling a blister or pimple
- stiff neck or back
- stomach cramps or tenderness
- stomach upset
- swelling in the legs and ankles
- swelling of the face, fingers, feet, or lower legs
- swollen, painful, or tender lymphglands in the neck, armpit, or groin
- tiny bumps on the inner lining of the eyelid
- unexplained weight loss
- unpleasant breath odor
- watery or bloody diarrhea
- weakness or heaviness of the legs
- weight gain
- yellow eyes or skin

SITE-- http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0045440/#DDIC602223.side_effects_section

NEURONTIM, GRALISE, & HORIZANT
 GENERIC NAME: GABAPENTIN
 ANTICONVULSANT

"Check with your doctor immediately if any of the following side effects occur:"

More Common

- Clumsiness or unsteadiness
- continuous, uncontrolled, back-and-forth, or rolling eye movements

More Common In Children

- Aggressive behavior or other behavior problems
- anxiety
- concentration problems and change in school performance
- crying
- depression
- false sense of well-being
- hyperactivity or increase in body movements
- rapidly changing moods
- reacting too quickly, too emotional, or overreacting

- restlessness
- suspiciousness or distrust

Less Common

- Black, tarry stools
- chest pain
- chills
- cough
- depression, irritability, or other mood or mental changes
- fever
- loss of memory
- pain or swelling in the arms or legs
- painful or difficult urination
- shortness of breath
- sore throat
- sores, ulcers, or white spots on the lips or in the mouth
- swollen glands
- unusual bleeding or bruising
- unusual tiredness or weakness

"Check with your health care professional if any of the following side effects continue or are bothersome or if you have any questions about them:"

More common

- Blurred vision
- cold or flu-like symptoms
- delusions
- dementia
- hoarseness
- lack or loss of strength
- lower back or side pain
- swelling of the hands, feet, or lower legs
- trembling or shaking

Less common or rare

- Accidental injury
- appetite increased
- back pain
- bloated or full feeling
- body aches or pain
- burning, dry, or itching eyes
- change in vision
- change in walking and balance
- clumsiness or unsteadiness
- congestion
- constipation
- cough producing mucus
- decrease in sexual desire or ability
- difficulty with breathing
- dryness of the mouth or throat
- earache

- excess air or gas in the stomach or intestines
- excessive tearing
- eye discharge
- feeling faint, dizzy, or lightheadedness
- feeling of warmth or heat
- flushed, dry skin
- flushing or redness of the skin, especially on the face and neck
- frequent urination
- fruit-like breath odor
- impaired vision
- incoordination
- increased hunger
- increased sensitivity to pain
- increased sensitivity to touch
- increased thirst
- indigestion
- noise in the ears
- pain, redness, rash, swelling, or bleeding where the skin is rubbed off
- passing gas
- redness or swelling in the ear
- redness, pain, swelling of the eye, eyelid, or inner lining of the eyelid
- runny nose
- sneezing
- sweating
- tender, swollen glands in the neck
- tightness in the chest
- tingling in the hands and feet
- trouble sleeping
- trouble swallowing
- trouble thinking
- twitching
- unexplained weight loss
- voice changes
- vomiting
- weakness or loss of strength
- weight gain

SITE -- http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0045606/#DDIC600709.side_effects_section

EFFEXOR

GENERIC NAME : VENLAFAXINE

NERVE PAIN MEDICATION AND ANTIDEPRESSANT

"Check with your doctor immediately if any of the following side effects occur:"

More common

- High blood pressure
- lack or loss of strength
- severe headache
- sweating

Less Common

- Blurred vision
- chest pain
- fast or irregular heartbeat
- mood or mental changes
- ringing or buzzing in the ears
- suicidal thoughts

Rare

- Actions that are out of control
- convulsions
- high fever
- high or low blood pressure
- irritability
- itching or skin rash
- lightheadedness or fainting, especially when getting up suddenly from a sitting or lying position
- menstrual changes
- nervousness
- problems with urinating or holding urine
- severe muscle stiffness
- talking, feeling, and acting with excitement that you cannot control
- trouble breathing
- unusually pale skin

"Check with your health care professional if any of the following side effects continue or are bothersome or if you have any questions about them:"

More common

- Abnormal dreams
- chills
- constipation
- decrease in sexual desire or ability
- diarrhea
- drowsiness
- dry mouth
- heartburn
- increased sweating
- loss of appetite
- nausea
- stomach pain or gas
- stuffy or runny nose
- tingling, burning, or prickly sensations
- trembling or shaking
- trouble sleeping
- unusual tiredness or weakness
- vomiting
- weight loss

Less common

- Change in taste, muscle tension, yawning

SITE- http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0045958/#DDIC601617.side_effects_section

CYMBALTA

GENERIC NAME :

Duloxetine delayed-release capsules

NERVE PAIN MEDICATION/SSRI

"Call your doctor right away if you notice any of these side effects:"

- Blistering, peeling, red skin rash
- Confusion, weakness, muscle twitching
- Dark urine or pale stools, nausea, vomiting, loss of appetite, stomach pain, yellow skin or eyes
- Decrease in how much or how often you urinate
- Eye pain, vision changes, seeing halos around lights
- Feeling more energetic than usual
- Lightheadedness, dizziness, or fainting
- Restlessness, fever, fast heartbeat, sweating, muscle spasms, diarrhea, seeing or hearing things that are not there
- Unusual moods or behaviors, worsening depression, thoughts about hurting yourself, trouble sleeping

- Unusual bleeding or bruising

"If you notice these less serious side effects, talk with your doctor:"

- Decrease in appetite or weight
- Dry mouth, constipation, mild nausea
- Unusual drowsiness or tiredness

SITE -- http://www.ncbi.nlm.nih.gov/pubmedhealth/PMHT0010059/?report=details#side_effects

AMITRIPTYLINE

GENERIC NAME : AMITRIPTYLINE

NERVE PAIN MEDICATION/ANTIDEPRESSANT

"Call your doctor right away if you notice any of these side effects:"

- Anxiety, restlessness, seeing or hearing things that are not there
- Chest pain, trouble breathing
- Fast, pounding, or uneven heartbeat
- Feeling more excited or energetic than usual, racing thoughts, trouble sleeping
- Lightheadedness, dizziness, or fainting
- Seizures
- Thoughts of hurting yourself or others, unusual behavior
- Unusual bleeding or bruising

"If you notice these less serious side effects, talk with your doctor:"

- Blurred vision, dry mouth, fever
- Change in how much or how often you urinate
- Constipation, diarrhea, nausea, vomiting
- Drowsiness, sleepiness sexual problems

SITE- http://www.ncbi.nlm.nih.gov/pubmedhealth/PMHT0008944/?report=details#side_effects

LYRICA

GENERIC NAME: PREGABALIN

Nerve Pain Medication

"Check with your doctor immediately if any of the following side effects occur:"

Less common

- Difficult or labored breathing
- shortness of breath
- tightness in the chest

Rare

- Blistering, peeling, or loosening of the skin
- chills
- cough
- diarrhea
- difficulty with swallowing
- dizziness
- Fast heartbeat
- hives
- itching
- joint or muscle pain
- puffiness or swelling of the eyelids or around the eyes, face, lips, or tongue
- red skin lesions, often with a purple center
- red, irritated eyes
- skin rash
- sore throat
- sores, ulcers, or white spots in the mouth or on the lips
- unusual tiredness or weakness

"Check with your health care professional if any of the following side effects continue or are bothersome or if you have any questions about them:"

More common

- Accidental injury
- bloating or swelling of the face, arms, hands, lower legs, or feet
- blurred vision
- burning, tingling, numbness or pain in the hands, arms, feet, or legs
- change in walking and balance
- clumsiness
- confusion
- delusions
- dementia
- difficulty having a bowel movement (stool)
- difficulty with speaking
- double vision
- dry mouth
- fever
- headache
- hoarseness
- increased appetite
- lack of coordination
- loss of memory
- lower back or side pain

- painful or difficult urination
- problems with memory
- rapid weight gain
- seeing double
- sensation of pins and needles
- shakiness and unsteady walk
- sleepiness or unusual drowsiness
- stabbing pain
- swelling
- tingling of the hands or feet
- trembling, or other problems with muscle control or coordination
- unusual weight gain or loss

Less common

- Anxiety
- bloated or full feeling
- burning, crawling, itching, numbness, prickling, "pins and needles", or tingling feelings
- Chest pain
- cold sweats
- coma
- cool, pale skin
- cough producing mucus
- decrease or change in vision
- depression
- excess air or gas in the stomach or intestines
- eye disorder
- false or unusual sense of well-being
- general feeling of discomfort or illness
- increased hunger
- joint pain
- loss of appetite
- loss of bladder control
- loss of strength or energy
- muscle aches and pain
- muscle twitching or jerking
- muscle weakness
- nausea
- nervousness
- nightmares
- noisy breathing
- pain
- passing gas
- rhythmic movement of the muscles
- runny nose
- seizures
- shivering
- slurred speech
- sweating

- trouble sleeping
- twitching
- uncontrolled eye movements
- Vomiting

SITE -- http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0046069/#DDIC601627.side_effects_section

SAVELLA

GENERIC NAME : MILNACIPRAN

Antidepressant and nerve pain medication

"Check with your doctor immediately if any of the following side effects occur:"

More Common

- Blurred vision
- body aches or pain
- chills
- cough
- difficulty with breathing
- dizziness
- ear congestion
- fast, irregular, pounding, or racing heartbeat or pulse
- fear or nervousness
- fever
- headache
- increased sweating
- loss of voice
- nasal congestion
- pounding in the ears
- runny nose
- slow or fast heartbeat
- sneezing
- sore throat
- unusual tiredness or weakness

Less Common

- Back pain
- burning, crawling, itching, numbness, prickling, "pins and needles", or tingling feelings
- chest pain or discomfort
- chills
- decrease in frequency of urination
- decrease in urine volume
- difficult or painful urination
- difficulty in passing urine(dribbling)
- frequent urination
- groin pain
- muscle aches
- pain or burning with urination
- shakiness in the legs, arms, hands, or feet
- swollen, tender prostate

- tightness in the chest

Rare

- Bladder pain
- bloating or swelling of the face, arms, hands, lower legs, or feet
- bloody or cloudy urine
- bruise
- discouragement
- fall
- feeling sad or empty
- frequent urge to urinate
- full or bloated feeling
- heartburn
- increased or decreased weight
- irritability
- lack of appetite
- loss of interest or pleasure
- lower back or side pain/pressure in the stomach
- rapid weight gain
- swelling of the abdominal or stomach area
- tingling of the hands or feet
- tiredness
- trouble concentrating
- trouble sleeping
- unusual weight gain or loss
- vomiting

"Check with your health care professional if any of the following side effects continue or are bothersome or if you have any questions about them:"

More common

- Feeling of warmth
- headache, severe and throbbing
- redness of the face, neck, arms, and occasionally, upper chest
- sudden sweating

Less common

- Abdominal or stomach pain
- Change or problems and with discharge of semen
- decreased appetite
- decreased interest in sexual intercourse
- inability to have or keep an erection
- loss in sexual ability, desire, drive, or performance
- not able to ejaculate semen
- rash
- swelling of the testes

RARE

- Acid or sour stomach
- belching
- bloated
- change in taste

- excess air or gas in the stomach or intestines
- full feeling
- heartburn
- indigestion
- irritability
- loss of taste
- night sweats
- passing gas
- sleepiness or unusual drowsiness
- stomach discomfort, upset, or pain

SITE- http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0044734/#DDIC602849.side_effects_section

AMRIX/FLEXERIL

GENERIC NAME : CYCLOBENZAPRINE

MUSCLE RELAXANT

"Check with your doctor immediately if any of the following side effects occur:"

Rare

- Clumsiness or unsteadiness
- confusion
- fainting
- mental depression
- problems in urinating
- ringing or buzzing in the ears
- skin rash, hives, or itching occurring without other symptoms of an allergic reaction listed above
- unusual thoughts or dreams
- yellow eyes or skin

SITE- http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0044917/#DDIC600491.side_effects_section

NORFLEX

GENERIC NAME : ORPHENADRINE

MUSCLE RELAXANT

"Check with your doctor immediately if any of the following side effects occur:"

Rare

- Chest pain
- chills
- cough
- fever
- hallucinations (seeing, hearing, or feeling things that are not there)
- headache
- shortness of breath, troubled breathing, tightness in chest, and/or wheezing
- skin rash, hives, itching, or redness
- sores, ulcers, or white spots on lips or in mouth
- swollen and/or painful glands
- unusual bruising or bleeding
- unusual tiredness or weakness

SITE - http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0045029/#DDIC601043.side_effects_section

ZANAFLEX

GENERIC NAME : TIZANIDINE

MUSCLE RELAXANT

"Check with your doctor immediately if any of the following side effects occur:"

More common

- Chest pain or discomfort
- fever or chills
- nausea or vomiting
- nervousness
- pain or burning while urinating
- unusual tiredness

Less common

- Blurred vision
- flu-like symptoms
- irregular heartbeat
- itching skin
- kidney stones
- right upper stomach tenderness
- seeing things that are not there
- shortness of breath
- weight gain

SITE- http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0044925/#DDIC601495.side_effects_section

TOPAMAX

GENERIC NAME : TOPIRAMATE

NERVE PAIN MEDICATION AND ANTICONVULSANT

"Check with your doctor immediately if any of the following side effects occur:"

More Common

- Any vision problems, especially blurred vision, double vision, eyepain, or rapidly decreasing vision
- burning, prickling, or tingling sensations
- clumsiness or unsteadiness
- confusion
- continuous, uncontrolled back-and-forth or rolling eye movements
- dizziness
- drowsiness
- eye redness
- generalized slowing of mental and physical activity
- increased eye pressure
- memory problems
- menstrual changes
- menstrual pain
- nervousness
- speech or language problems
- trouble in concentrating or paying attention
- unusual tiredness or weakness
- Less common
- Abdominal or stomach pain

- fever, chills, or sore throat
- lessening of sensations or perception
- loss of appetite
- mood or mental changes, including aggression, agitation, apathy, irritability, and mental depression
- red, irritated, or bleeding gums
- weight losses

Rare

- Blood in the urine
- decrease in sexual performance or desire
- difficult or painful urination
- frequent urination
- hearing loss
- loss of bladder control
- lower back or side pain
- nosebleeds
- pale skin
- red or irritated eyes
- ringing or buzzing in the ears
- skin rash or itching
- swelling
- trouble breathing

"Check with your health care professional if any of the following side effects continue or are bothersome or if you have any questions about them:"

More common

- Breast pain in women
- tremors

Less common

- Back pain
- chest pain
- constipation
- heartburn
- hot flushes
- increased sweating
- leg pain

SITE -- http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0046163/#DDIC601527.side_effects_section

XANAX

GENERIC NAME : ALPRAZOLAM

ANTI-ANXIETY

"Check with your doctor immediately if any of the following side effects occur:"

More common

- Being forgetful
- changes in patterns and rhythms of speech
- clumsiness or unsteadiness
- difficulty with coordination
- discouragement
- drowsiness

- feeling sad or empty
- irritability
- lack of appetite
- lightheadedness
- loss of interest or pleasure
- relaxed and calm
- shakiness and unsteady walk
- sleepiness or unusual drowsiness
- slurred speech
- tiredness
- trouble concentrating
- trouble in speaking
- trouble performing routine tasks
- trouble sleeping
- unsteadiness, trembling, or other problems with muscle control or coordination
- unusual tiredness or weakness

Less common

- Abdominal or stomach pain
- blurred vision
- body aches or pain
- Burning, crawling, itching, numbness, prickling, "pins and needles", or tingling feelings
- changes in behavior
- chills
- clay-colored stools
- confusion about identity, place, and time
- cough
- dark urine
- decrease in frequency of urination
- decrease in urine volume
- diarrhea
- difficult or labored breathing
- difficulty in moving
- difficulty in passing urine(dribbling)
- difficulty with concentration
- dizziness, faintness, or lightheadedness when getting up from a lying or sitting position suddenly
- dry mouth
- ear congestion
- environment seems unreal
- fainting
- fear or nervousness
- feeling of unreality
- feeling warm
- fever
- general feeling of discomfort or illness
- headache
- hyperventilation
- inability to move eyes

- inability to sit still
- increased blinking or spasms of the eyelid
- irregular heartbeats
- itching
- joint pain
- lack or loss of self-control
- loss of bladder control
- loss of coordination
- loss of memory
- loss of voice
- mood or mental changes
- muscle aching or cramping
- muscle pain or stiffness
- muscle weakness
- nasal congestion
- nausea
- need to keep moving
- painful urination
- problems with memory
- rash
- restlessness
- runny nose
- seeing, hearing, or feeling things that are not there
- seizures
- sense of detachment from self or body
- shaking
- shivering
- shortness of breath
- sneezing
- sore throat
- sticking out of the tongue
- sweating
- swollen joints
- talkativeness
- tightness in the chest
- trouble in breathing, speaking, or swallowing
- trouble with balance
- twitching, twisting, or uncontrolled repetitive movements of the tongue, lips, face, arms, or legs
- uncontrolled twisting movements of the neck, trunk, arms, or legs
- unpleasant breath odor
- unusual drowsiness, dullness, tiredness, weakness, or feeling of sluggishness
- unusual facial expressions
- unusually deep sleep
- unusually long duration of sleep
- vomiting of blood
- wheezing
- yellow eyes or skin

Rare

- Actions that are out of control
- attack, assault, or force
- chest pain
- continuing ringing or buzzing or other unexplained noise in ears
- decreased awareness or responsiveness
- deep or fast breathing with dizziness
- ear pain
- false or unusual sense of well-being
- fast, irregular, pounding, or racing heartbeat or pulse
- feeling jittery
- feeling unusually cold
- generalized slowing of mental and physical activity
- hearing loss
- hoarseness
- lack of feeling or emotion
- loss of control of the legs
- loss of strength or energy
- nightmare
- numbness of the feet, hands, and around mouth
- severe sleepiness
- shakiness in the legs, arms, hands, or feet
- sleep talking
- sleeplessness
- swelling
- talking, feeling, and acting with excitement
- thoughts of killing oneself
- unable to sleep
- uncaring
- unusual weak feeling
- voice changes

"Check with your health care professional if any of the following side effects continue or are bothersome or if you have any questions about them:"

More common

- Absent, missed, or irregular menstrual periods
- decreased appetite
- decreased interest in sexual intercourse
- decreased sexual performance or desire abnormal ejaculation
- difficulty having a bowel movement(stool)
- inability to have or keep an erection
- increased appetit
- increased in sexual ability, desire, drive, or performance
- increased interest in sexual intercourse
- increased weight
- loss in sexual ability, desire, drive, or performance
- stopping of menstrual bleeding
- watering of mouth

- weight loss

Less common

- Abdominal bloating and cramping
- blistering, crusting, irritation, itching, or reddening of the skin
- change in taste bad unusual or unpleasant (after) taste
- cracked, dry, or scaly skin
- cramps
- double vision
- feeling of warmth
- heavy bleeding
- menstrual changes
- pain
- pelvic pain
- redness of the face, neck, arms, and occasionally, upper chest
- seeing double
- sudden sweating
- unexplained runny nose or sneezing

Rare

- Acid or sour stomach
- belching
- bigger, dilated, or enlarged pupils
- change in color vision
- difficulty seeing at night
- feeling of constant movement of self or surroundings
- feeling of relaxation
- heartburn
- hives or welts
- increased sensitivity of eyes to sunlight
- indigestion
- redness of skin
- runny nose
- sensation of spinning
- stomach discomfort, upset, or pain
- stuffy nose

SITE -- http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0057404/#DDIC603805.side_effects_section

ULTRAM

GENERIC NAME : TRAMADOL

NARCOTIC

"Check with your doctor immediately if any of the following side effects occur:"

Less Common Or Rare

- Abdominal or stomach fullness
- abnormal or decreased touch sensation
- blisters under the skin
- bloating
- blood in the urine
- blood pressure increased

- blurred vision
- change in walking and balance
- chest pain or discomfort
- chills
- convulsions (seizures)
- darkened urine
- difficult urination
- dizziness or lightheadedness when getting up from a lying or sitting position
- fainting
- fast heartbeat
- frequent urge to urinate
- gaseous abdominal or stomach pain
- heart rate increased
- indigestion
- irregular heartbeat
- loss of memory
- numbness and tingling of the face, fingers, or toes
- numbness, tingling, pain, or weakness in the hands or feet
- pain in the arms, legs, or lower back, especially pain in the calves or heels upon exertion
- pain or discomfort in the arms, jaw, back, or neck
- pains in the stomach, side, or abdomen, possibly radiating to the back
- pale bluish-colored or cold hands or feet
- recurrent fever
- seeing, hearing, or feeling things that are not there
- severe cramping
- severe nausea
- severe redness, swelling, and itching of the skin
- shortness of breath
- sweats
- trembling and shaking of the hands or feet
- trouble performing routine tasks
- weak or absent pulses in the legs
- yellow eyes or skin

"Check with your health care professional if any of the following side effects continue or are bothersome or if you have any questions about them:"

More common

- Abdominal or stomach pain
- agitation
- anxiety
- constipation
- cough
- diarrhea
- discouragement
- drowsiness
- dry mouth
- feeling of warmth
- feeling sad or empty

- feeling unusually cold
- fever
- general feeling of discomfort or illness
- headache
- heartburn
- irritability
- itching of the skin
- joint pain
- loss of appetite
- loss of interest or pleasure
- loss of strength or weakness
- muscle aches and pains
- nausea
- nervousness
- redness of the face, neck, arms, and occasionally, upper chest
- restlessness
- runny nose
- shivering
- skin rash
- sleepiness or unusual drowsiness
- sore throat
- stuffy nose
- sweating
- tiredness
- trouble concentrating
- unusual feeling of excitement
- weakness

Less Common or Rare

- Abnormal dreams
- appetite decreased
- back pain
- bladder pain
- blistering, crusting, irritation, itching, or reddening of the skin
- bloody or cloudy urine
- body aches or pain
- change in hearing
- clamminess
- cold flu-like symptoms
- confusion
- cough producing mucus
- cracked, dry, or scaly skin
- decreased interest in sexual intercourse
- difficult, burning, or painful urination
- difficulty with moving
- disturbance in attention
- ear congestion
- ear drainage

- earache or pain in ear
- excessive gas
- fall
- false or unusual sense of well-being
- feeling hot
- feeling jittery
- flushing or redness of the skin
- general feeling of bodily discomfort
- goosebumps
- headache, severe and throbbing
- hoarseness
- hot flashes
- inability to have or keep an erection
- itching, pain, redness, swelling, tenderness, or warmth on the skin
- joint sprain
- joint stiffness
- joint swelling
- loss in sexual ability, desire, drive, or performance
- loss of voice
- lower back or side pain
- muscle aching or cramping
- muscle injury
- muscle pain or stiffness
- muscle spasms or twitching
- nasal congestion
- neck pain
- night sweats
- pain
- pain in the limbs
- pain or tenderness around the eyes and cheekbones
- pain, swelling, or redness in the joints
- skin discoloration
- swelling
- swelling of the hands, ankles, feet, or lower legs
- tightness of the chest
- trouble in holding or releasing urine
- trouble with sleeping
- troubled breathing
- weight increased or decreased

"After you stop using this medicine, it may still produce some side effects that need attention. During this period of time, check with your doctor immediately if you notice the following side effects:"

- Gooseflesh
- high blood pressure
- increased sweating
- increased yawning
- shivering or trembling
- unusually large pupils

SITE -- http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0044659/#DDIC601787.side_effects_section

DESYREL

GENERIC NAME : TRAZODONE

SEDATIVE AND ANTIDEPRESSANT

"Check with your doctor immediately if any of the following side effects occur:"

More common

- Blurred vision
- confusion
- dizziness
- Dizziness, faintness, or lightheadedness when getting up suddenly from a lying or sitting position
- lightheadedness
- sweating
- unusual tiredness or weakness

Less common

- Burning, crawling, itching, numbness, prickling, "pins and needles", or tingling feelings
- Confusion about identity, place and time
- decreased concentration
- fainting
- general feeling of discomfort or illness
- headache
- lack of coordination
- muscle tremors
- nervousness
- pounding in the ears
- shortness of breath
- slow or fast heartbeat
- swelling

Rare

- Skin rash
- unusual excitement

"Check with your health care professional if any of the following side effects continue or are bothersome or if you have any questions about them:"

More common

- Dry mouth (usually mild)
- muscle or bone pain
- trouble sleeping
- trouble with remembering
- unpleasant taste

Less common

- Constipation
- continuing ringing or buzzing or other unexplained noise in the ears
- diarrhea
- hearing loss
- muscle aches or pains
- Weight loss

SITE-- http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0058575/#DDIC603837.side_effects_section

DELTASONE

GENERIC NAME : PREDNISONE

STERIOD

"Check with your doctor immediately if any of the following side effects occur:"

More common

- Aggression
- agitation
- blurred vision
- decrease in the amount of urine
- dizziness
- fast, slow, pounding, or irregular heartbeat or pulse
- irritability
- mood change
- noisy, rattling breathinnumbness or tingling in the arms or legs
- pounding in the ears
- shortness of breath
- swelling of the fingers, hands, feet, or lower legs
- trouble thinking, speaking, or walking
- Troubled breathing at rest
- Weight gain

"Check with your health care professional if any of the following side effects continue or are bothersome or if you have any questions about them:"

More Common

- Increased appetite

SUTE -- http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0044942/#DDIC603543.side_effects_section

SKELAXIN

GENERIC NAME : METAXALONE

MUSCLE RELAXANT

"Check with your doctor immediately if any of the following side effects occur:"

More common

- Abdominal or stomach pain
- back or leg pains
- black, tarry stools
- bleeding gums
- chest pain
- chills
- cough
- dark urine
- difficulty in breathing or swallowing
- dizziness
- fast heartbeat
- fever
- general body swelling
- headache
- itching

- loss of appetite
- nausea or vomiting
- nosebleeds
- painful or difficult urination
- pale skin
- rash
- shortness of breath
- skin itching, rash, or redness
- sore throat
- sores, ulcers, or white spots on the lips or in the mouth
- swelling of the face, throat, or tongue
- swollen glands
- unpleasant breath odor
- unusual bleeding or bruising
- unusual tiredness or weakness
- vomiting of blood
- yellowing of the eyes or skin

Rare

- Hives
- puffiness or swelling of the eyelids or around the eyes, face, lips, or tongue
- Tightness in the chest
- Wheezing

"Check with your health care professional if any of the following side effects continue or are bothersome or if you have any questions about them:"

More common

- Diarrhea
- drowsiness
- irritability
- stomach cramps
- vomiting

SITE -- http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0046104/#DDIC602699.side_effects_section

OXYCONTIN

GENERIC NAME : OXYCODONE

NARCOTIC

"Call your doctor right away if you notice any of these side effects:"

- Blue lips, fingernails, or skin
- Extreme dizziness or weakness, shallow breathing, slow or uneven heartbeat, sweating, cold or clammy skin, seizures
- Lightheadedness, dizziness, fainting
- Severe constipation, stomach pain, or vomiting
- Trouble breathing or slow breathing

"If you notice these less serious side effects, talk with your doctor:"

- Headache
- Mild constipation, nausea, vomiting
- Mild tiredness or sleepiness

SITE-- http://www.ncbi.nlm.nih.gov/pubmedhealth/PMHT0011542/?report=details#side_effects

PERCOCET

GENERIC NAME : OXYCODONE

NARCOTIC

"Call your doctor right away if you notice any of these side effects:"

- Dark urine or pale stools, nausea, vomiting, loss of appetite, stomach pain, yellow skin or eyes
- Extreme weakness, shallow breathing, uneven heartbeat, seizures, sweating, or cold or clammy skin
- Lightheadedness, dizziness, or fainting
- Trouble breathing

"If you notice these less serious side effects, talk with your doctor:"

- Constipation
- Headache
- Mild lightheadedness, sleepiness, or drowsiness
- Mild nausea or vomiting

SITE -- http://www.ncbi.nlm.nih.gov/pubmedhealth/PMHT0011543/?report=details#side_effects

TYLENOL

GENERIC NAME : ACETAMINOPHEN

ANALGESIC

"Call your doctor right away if you notice any of these side effects:"

- Bloody or black, tarry stools
- Dark urine or pale stools, nausea, vomiting, loss of appetite, severe stomach pain, yellow skin or eyes
- Fever or a sore throat that lasts longer than 3 days, or pain that lasts longer than 5 days
- Lightheadedness, fainting, sweating, or weakness
- Unusual bleeding or bruising
- Vomiting blood or material that looks like coffee grounds

"Do not drink alcohol while you are using this medicine. Acetaminophen can damage your liver, and alcohol can increase this risk. Do not take acetaminophen without asking your doctor if you have 3 or more drinks of alcohol every day."

Over 80,000 Americans visit ERs due to taking too much acetaminophen. Acetaminophen is now the leading cause of liver failure in this country.

SITE-- http://www.ncbi.nlm.nih.gov/pubmedhealth/PMHT0008785/?report=details#side_effects

It is extremely important to note that for some CFS/ME patients their muscle, joint, and/or neuropathic/nerve pain is so severe that it requires the use of prescription narcotic pain relievers such as codeine, OxyContin, and hydrocodone, as noted above. The use of prescription narcotic painkillers is extremely dangerous.

Prescriptions for painkillers have climbed 300% in the past decade causing 46 deaths per day which equals almost 17,000 Americans dying each year from overdose. Also, for every one death more than 30 Americans go to the ER for opioid/painkiller complications totaling more than 510,000.

One of the most dangerous factors of using prescription opioids is the fact that tolerance builds extremely quickly. Patients may start out on a very low dose that numbs their pain; but within just a few months of taking the prescription exactly as ordered they are taking very dangerous, deadly overdose levels to have the same pain numbing effects.

In as short as a few months to 1+ year a patient may be taking 5 to 10 fold more prescription opioids for them to work causing a profound chance for addiction, overdose and/or death.

While some patients with more severe pain take prescription narcotics others only take over the counter drugs such as acetaminophen (Tylenol and its generics). Many people believe that acetaminophen is a safe alternative to taking perception narcotics. However, over 80,000 Americans visit ERs due to taking too much acetaminophen. Acetaminophen is now the leading cause of liver failure in this country

because of their inability to concentrate, articulate, their forgetfulness, etc. It can be very depressing if other symptoms are at low levels or have fluctuated down to low levels at a point but the patient is still unable to be productive. Cognitive issues, however, may also be present in patients with moderate and severe levels of pain and fatigue.

It's important to note that symptoms and severity levels of symptoms will be different in each and every patient

7. Fibromyalgia causes severe suffering that severely impairs the patient's ability to carry on activities of daily living. Fibromyalgia causes many severely debilitating symptoms. The hallmark debilitating symptom of fibromyalgia is widespread muscle pain and tenderness. Pain is usually felt in the muscles, abdomen, back, neck and joints. Pain is often chronic and can be severe. The pain can be sharp or to a lesser degree more dull. Muscles may be very tender and sore. Patients can experience muscle spasms. Along with muscular pain and spasticity patients may also experience joint pain and/or stiffness. The pain that fibromyalgia patients can severely debilitate them. Pain maybe severe enough that patients can not attend school it work. They may not be able to enjoy time with friends and family. The pain may be so severe that some fibromyalgia patients are bedridden. For some fibromyalgia patients severe pain is not only constant but can be felt at all times throughout their whole body.

Along with pain of a more musculoskeletal position many fibromyalgia patients experience neuropathic/nerve pain. Their neuropathic/nerve pain may be severe burning; stabbing. Their neuropathic pain may be severe "pins and needles", itchy, "skin crawling" sensations, tingling and/or numbness. The neuropathic pain may also be responsible for heat and cold sensitivity.

Along with musculoskeletal pain and/or neuropathic/nerve pain directly from fibromyalgia itself, patients also may experience a heightened sense of pain levels. Pain levels from general non-fibromyalgia injuries, ie a sprained ankle, may be magnified to severe levels. Also the pain levels directly from fibromyalgia itself will also be magnified.

Patients may experience gastrointestinal issues. They may experience excessive gas, constipation, and/or nausea. The gastrointestinal issues may prevent patients from being able to eat properly. They may lose their appetite and become undernourished.

Patients may also have anxiety, nervousness, and possible mood swings. Those symptoms may prevent patients from being able to enjoy things they once did like going out to dinner, being in a large group for gatherings, ie birthday celebrations, etc. The anxiety et al may cause severe pain attacks in some patients lowering their quality of life.

Patients with fibromyalgia often have symptoms that they share with patients of Chronic Fatigue Syndrome/Myalgic Encephalomyelitis. Fibromyalgia patients often have excessive fatigue and may lie in bed. The fatigue that fibromyalgia patients may suffer can be just as debilitating as the fatigue that CFS/ME patients suffer. It can be all encompassing and unrelenting. It can make it so fibromyalgia patients can not do the same activities that they used to including but not limited to: working, going out with friends, spending time with family, household chores, and driving. The fatigue levels may rival those of CFS/ME patients at times while still not being from CFS/ME. Fatigue levels of fibromyalgia patients may also be low to moderate. Fatigue levels can and most likely will fluctuate sometimes wildly.

Patients with fibromyalgia often share another symptom with those of CFS/ME patients. That is cognitive issues, including "brain fog", forgetfulness, trouble concentrating, and trouble articulating the correct words in correct settings. The cognitive symptoms can be extremely debilitating to fibromyalgia patients. Patients with cognitive issues may have less fatigue and pain symptoms but still are unable to work

9. The use of medical marijuana is extremely beneficial to the patients of fibromyalgia. Medical marijuana has been medically, scientifically, and anecdotally proven effective in treating chronic pain.

Medical marijuana is effective in providing relief for fibromyalgia patients with muscular, joint, bone, neuropathic/nerve pain and/or any other pain associated with fibromyalgia. Marijuana has been proven effective in treating pain. Two cannabinoids found in cannabis, tetrahydrocannabinol (THC) and cannabidiol (CBD), are effective at lowering pain levels associated with, acute muscle pain, acute joint pain, acute bone pain, neuropathic/nerve pain, spasticity, headache, chronic muscle pain, chronic joint pain, and chronic bone pain. Both THC and CBD help in the management of pain because they activate CB1 and CB2. CB1 and CB2 are the two main cannabinoid receptors of the body's endocannabinoid system. CB1 and CB2 regulate the release of neurotransmitter and central nervous system immune cells to manage patient's pain levels. Medical marijuana has proven its ability to significantly lower pain levels in patients with neuropathic/nerve pain and muscular/joint/bone nociceptive pain. Medical marijuana has also been shown to help alleviate pain that has not been responsive to other treatments.

Across the board medical marijuana has been shown as effective. In one study 80% of patients who used marijuana for their chronic pain reported an improvement.

Medical marijuana is also an extremely safe treatment for pain. Even after 1+ year of using marijuana for pain, patients were found at no greater incidence of adverse effects than non marijuana users.

Studies have shown that the use of medical marijuana is effective at improving sleep, depression, anxiety, physical function, joint stiffness, pain and overall quality of life fibromyalgia patients.

It has been shown that fibromyalgia patients treated with medical marijuana over a 7 month period experienced a significant pain intensity improvements and were able to reduce their doses of opioids. A study found that patients treated with medical marijuana for 4 weeks showed a significant reduction in pain and anxiety while the placebo group showed no reduction. Another study reported significant reductions in pain and stiffness and an enhancement of relaxation with an increase in somnolence and feeling of well being in fibromyalgia patients.

Medical marijuana has been proven effective in helping sleep quality of fibromyalgia patients.

Medical marijuana is effective against anxiety that some fibromyalgia patients suffer.

Medical marijuana is extremely effective in reducing and removing inflammation whether that inflammation is in a patient's brain, bones/joints, muscles and/or organs. Marijuana has 20x the anti-inflammatory power of aspirin and 2x the anti-inflammatory power of hydrocortisone.

In fact, medical marijuana is such a strong anti-inflammatory that the cannabinoids in it may be beneficial in stopping certain types of cancers triggered by inflammation.

Often times fibromyalgia pain may be deferred from inflammation. Cognitive issues in fibromyalgia patients are almost always the result of inflammation.

THC and CBD are responsible for reducing chronic inflammation and curtailing the pain as a result of said inflammation.

THC has been proven to reduce the development of atherosclerosis, a chronic inflammation disease that is a major risk factor for strokes and heart attacks. THC also has been proven to lower the inflammation caused by the flu. Those two findings show that THC is beneficial in helping fibromyalgia patients because as stated above one of the symptoms of fibromyalgia is inflammation of the brain. THC has been proven to reduce the development of atherosclerosis which is a chronic inflammation disease that in part targets the brain (strokes); so it will also reduce inflammation in the brain from Fibromyalgia.

CBD has been proven to reduce joint inflammation. Joint inflammation may be one of the causes of joint pain for fibromyalgia.

THC & CBD decrease the production and release of pro-inflammatory cytokines and decrease the activation of the LPS-induced STAT1 transcription factor, a key factor in some of the pro-inflammatory process. CBD, also reduces the activity of the NF-kappaB pathway, which is a primary pathway regulating pro-inflammatory genes, and it upregulates the activation of the STAT3 transcription factor, which induces anti-inflammatory events. CBD assists in reducing inflammation by suppressing fatty acid amidohydrolase activity, which then results in an increased concentration of the anti-inflammatory endocannabinoid, anandamide.

Widespread inflammation pain is found in fibromyalgia. Medical marijuana has been proven in pain management. Cannabis' cannabinoids act upon the cannabinoid receptors, CB1 & CB2. CB1 & CB2 are involved in the lessening of pain associated with inflammation. Studies have shown that CBD is effective in reducing neuropathic/nerve pain because it reduces the inflammation causing sciatic nerve constriction.

Cognitive issues may be the result of brain inflammation so when a patient uses medical marijuana the brain inflammation will reduce or maybe even be removed and then the cognitive can improve and possibly completely dissipate.

Medical marijuana can also be extremely effective in treating any gastrointestinal issues a fibromyalgia may have. Marijuana has long been known to limit or prevent nausea and vomiting. That is because THC and CBD activate the CB1 receptor. Activating the CB1 receptor stops vomiting. CBD's effectiveness at producing anti-nausea effects may be because of its indirect activation of the sommatodendritic 5-HT(1A) autoreceptors in the brain stem.

<http://www.ncbi.nlm.nih.gov/m/pubmed/21533029/>

<http://www.ncbi.nlm.nih.gov/m/pubmed/20007734/>

<http://www.ncbi.nlm.nih.gov/m/pubmed/17974490/>

<http://www.ncbi.nlm.nih.gov/m/pubmed/21533029/>

<http://www.ncbi.nlm.nih.gov/m/pubmed/18404144/>

<http://www.ncbi.nlm.nih.gov/m/pubmed/17974490/>

<http://www.medicine.mcgill.ca/epidemiology/joseph/publications/Medical/ware2010.pdf>

<http://www.ncbi.nlm.nih.gov/m/pubmed/20798872/>

<http://www.ncbi.nlm.nih.gov/m/pubmed/16988792/>

<http://www.ncbi.nlm.nih.gov/m/pubmed/20007734/>

<http://www.ncbi.nlm.nih.gov/m/pubmed/12185373/>

<http://www.ncbi.nlm.nih.gov/m/pubmed/25635955/>

<http://www.ncbi.nlm.nih.gov/m/pubmed/26015168/>

<http://www.ncbi.nlm.nih.gov/m/pubmed/25635955/>

<http://www.ncbi.nlm.nih.gov/m/pubmed/26377551/>

<http://www.ncbi.nlm.nih.gov/m/pubmed/26325482/>

<http://www.ncbi.nlm.nih.gov/m/pubmed/21426373/>

http://www.ninds.nih.gov/disorders/chronic_pain/detail_chronic_pain.htm

<http://cannabisclinicians.org/wp-content/uploads/2015/09/Efficacy-of-Inhaled-Cannabis-on-Painful-Diabetic-Neuropathy.pdf>

<http://www.ncbi.nlm.nih.gov/m/pubmed/12620613/>

<http://www.ncbi.nlm.nih.gov/m/pubmed/12185373/>

<http://www.ncbi.nlm.nih.gov/m/pubmed/26385201/>

http://link.springer.com/chapter/10.1007%2F978-3-662-46450-2_7

<http://www.ncbi.nlm.nih.gov/m/pubmed/19910459/>

<http://www.ncbi.nlm.nih.gov/m/pubmed/18073275/>

<http://www.ncbi.nlm.nih.gov/m/pubmed/10367294/>

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2664885/>

<http://www.ncbi.nlm.nih.gov/m/pubmed/18073275/>

<http://www.ncbi.nlm.nih.gov/m/pubmed/25703248/>

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2664885/>

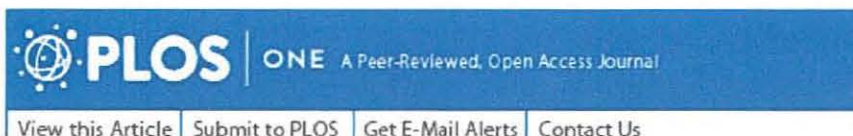
<http://www.ncbi.nlm.nih.gov/m/pubmed/11972997/>

<http://www.ncbi.nlm.nih.gov/m/pubmed/14963641/>

<http://www.ncbi.nlm.nih.gov/m/pubmed/17157290/>

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3728280/>

<http://www.ncbi.nlm.nih.gov/books/NBK6154/>



PLoS One. 2011; 6(4): e18440.

PMCID: PMC3080871

Published online 2011 Apr 21. doi: [10.1371/journal.pone.0018440](https://doi.org/10.1371/journal.pone.0018440)

Cannabis Use in Patients with Fibromyalgia: Effect on Symptoms Relief and Health-Related Quality of Life

Jimena Fiz,^{1,2} Marta Durán,³ Dolors Capellà,^{2,3} Jordi Carbonell,⁴ and Magí Farré^{1,2,*}

Antonio Verdejo García, Editor

¹Human Pharmacology and Neurosciences Unit, Institut de Recerca Hospital del Mar – IMIM, Parc de Salut Mar, Barcelona, Spain

²Universitat Autònoma de Barcelona, Barcelona, Spain

³Fundació Institut Català de Farmacologia, Barcelona, Spain

⁴Rheumatology Unit, Parc Salut Mar, Barcelona, Spain

University of Granada, Spain

* E-mail: mfarre@imim.es

Conceived and designed the experiments: JF DC MF. Performed the experiments: JF. Analyzed the data: JF MF. Wrote the paper: JF MD DC JC MF.

Received 2010 Nov 16; Accepted 2011 Mar 7.

Copyright Fiz et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

This article has been [cited by](#) other articles in PMC.

Abstract

[Go to:](#)

Background

The aim of this study was to describe the patterns of cannabis use and the associated benefits reported by patients with fibromyalgia (FM) who were consumers of this drug. In addition, the quality of life of FM patients who consumed cannabis was compared with FM subjects who were not cannabis users.

Methods

Information on medicinal cannabis use was recorded on a specific questionnaire as well as perceived benefits of cannabis on a range of symptoms using standard 100-mm visual analogue scales (VAS). Cannabis users and non-users completed the Fibromyalgia Impact Questionnaire (FIQ), the Pittsburgh Sleep Quality Index (PSQI) and the Short Form 36 Health Survey (SF-36).

Results

Twenty-eight FM patients who were cannabis users and 28 non-users were included in the study. Demographics and clinical variables were similar in both groups. Cannabis users referred different duration of drug consumption; the route of administration was smoking (54%), oral (46%) and combined (43%). The amount and frequency of cannabis use were also different among patients. After 2 hours of cannabis use, VAS scores showed a statistically significant ($p < 0.001$) reduction of pain and stiffness, enhancement of relaxation, and an increase in somnolence and feeling of well being. The mental health component summary score of the SF-36 was significantly higher



Fibromyalgia

($p < 0.05$) in cannabis users than in non-users. No significant differences were found in the other SF-36 domains, in the FIQ and the PSQI.

Conclusions

The use of cannabis was associated with beneficial effects on some FM symptoms. Further studies on the usefulness of cannabinoids in FM patients as well as cannabinoid system involvement in the pathophysiology of this condition are warranted.

Introduction

[Go to:](#)

The main complaint of patients with fibromyalgia (FM) is chronic generalized pain, although many patients suffer from concomitant symptoms, such as tiredness, morning stiffness, sleep and affective disturbances [1]. The pathophysiology of the disorder is poorly understood. Several mechanisms have been suggested including central sensitization, suppression of descending inhibitory pathways, excessive activity of glial cells, and abnormalities of neurotransmitter release [2]. In addition, blunting of the hypothalamic-pituitary-adrenal-axis (HPA-axis) and increased autonomic nervous system responsiveness have been consistently reported in FM patients. Emerging clues suggest that such dysfunction of the stress response system may be crucial in the onset of the symptoms of FM [3]. Treatment is based on the symptomatic relief of symptoms but usually modest results are obtained. The overall patient's satisfaction and the health-related quality of life are consistently poor.

Potential therapeutic uses of cannabis in different types of pain are currently extensively investigated. Data from clinical trials with synthetic and plant-based cannabinoids provide a promising approach for the management of chronic neuropathic pain of different origins [4]. Additionally, a large body of evidence currently supports the presence of cannabinoid receptors and ligands, thus an endocannabinoid neuromodulatory system appears to be involved in multiple physiological functions [5].

There is little clinical information on the effectiveness of cannabinoids in the amelioration of FM symptoms. Three clinical trials have suggested the possible benefit of cannabinoid in the management of FM [6]–[8]. Furthermore, a clinical endocannabinoid deficiency (CECD) has been hypothesized to underlie the pathophysiology of fibromyalgia, but a clear evidence to support this assumption is lacking [9].

The aim of this study was to describe the patterns of cannabis use and the associated benefits reported by patients with fibromyalgia (FM) who were consumers of this drug. In addition, the quality of life of FM patients who consumed cannabis was compared with FM subjects who were not cannabis users.

Methods

[Go to:](#)

Patients

A cross-sectional survey was performed. Participants were identified through an advertisement from one Rheumatology Outpatients Unit, 15 associations of FM patients and 1 association of cannabis consumers, all of them located in the city of Barcelona, Spain. Recruitment began in August 2005, and the study was completed in April 2007. Patients were eligible if they were ≥ 18 years of age, had been diagnosed with FM according to the American College of Rheumatology criteria [1], had moderate to severe symptomatology, and were resistant to pharmacological treatment. Exclusion criteria were severe illness and history of abuse or dependence for cannabis or others psychoactive substances.

Ethics statement

The study was approved by the local Institutional Review Board (CEIC-IMAS) and all volunteers gave their

written informed consent before inclusion.

Study procedures and evaluation

Patients were divided according their status of therapeutic cannabis use. Eligibility and exclusion criteria were checked through an accurate telephone interview. Demographic (age, gender and employment status) and clinical variables (duration of FM, number of medical consultations in the last year, associated symptoms, current pharmacological treatment, comorbid conditions, and alternative and complementary medicines) were also collected through a structured telephone interview. Patients were informed that a specific questionnaire to collect information on medicinal cannabis use will be posted to them as well as visual analogue scales (VAS) to record perceived benefits with comprehensive instructions how to fill them out.

The following variables were recorded: duration of cannabis use, previous use, cannabis derivative used (hashish or marijuana), route of administration, amount and frequency of use, supply source, physician's acknowledgement about cannabis use and changes of pharmacological treatment. Symptoms from which cannabis was used and perceived relief was recorded using 5-point Likert scale (strong relief, mild relief, not change, slight worsening, great worsening). Patients were further asked to record the perceived benefits of cannabis on a range of symptoms (pain, stiffness, relaxation, drowsiness, well-being) using 100-mm VAS scales (VAS) before and at 2 hours of cannabis consumptions. The occurrence and frequency of side effects were indicated based on a list of symptoms.

In order to compare the quality of life between users and non users of cannabis, three questionnaires were used:

The 36-item Short Form Health Survey (SF-36) is a self-administered questionnaire, validated in Spanish, in which eight dimensions of health-related quality of life are assessed: physical functioning, role-physical, bodily pain, general health, vitality, social functioning, role-emotional and mental health. Each scale is scored using norm-based methods, with higher scores indicating better health. Scores are aggregated further to produce physical and mental component summary measures of health status, using norm-based methods. The subscale scores are standardized and range from 0 to 100 with higher scores reflecting better health-related quality of life in the domain being measured [10].

The Fibromyalgia Impact Questionnaire (FIQ) is a self-administered questionnaire, validated in Spanish to assess health-related quality of life specifically in patients with fibromyalgia over the previous week. It consists of VAS and questions regarding limitations of daily living activities. The total score ranges from 0 to 80; a higher score indicates a more negative impact [11].

The Pittsburg Sleep Quality Index (PSQI) is a self-administered questionnaire, validated in Spanish, to measure the quality and patterns of sleep over the last month. It consists of 7 components that sum each other and give a total score range from 0 (no difficulties) to 21 (severe difficulties) [12].

Statistical analysis

Data obtained from the questionnaires were analysed using the SPSS software (version 12.0.1). Comparisons were carried out using Fisher Exact tests for categorical variables and Student t test for continuous variables. The Mann-Whitney U test was used when the size of a comparison group was too small to assume normality. Statistical significance was at the 5% level and all tests were two sided.

Results

[Go to:](#)

In response to the advertisement, 70 patients contacted the researchers to inquire about the study and were screened by telephone. A total of 14 subjects, –6 cannabis users and 8 non-users–, did not meet the eligibility criteria. Therefore, 56 FM patients completed the study protocol, 28 of them were cannabis users (mainly

recruited through FM association and cannabis association) and 28 were non-cannabis users (mainly recruited through FM associations and the Rheumatology Outpatients Unit of the hospital).

As shown in [Table 1](#), there were no statistically significant differences between the cannabis users and non-users groups in any demographic or clinical variables. The most frequent comorbid diseases were also balanced between the study groups. No significant differences were observed for the percentage of patients with irritable bowel syndrome, chronic fatigue syndrome, restless legs syndrome, osteoarthritis, Sjögren's syndrome, and hypothyroidism (data not shown in [Table 1](#)). With regard to treatment based on complementary and alternative medicines, there were no significant differences between groups, neither in number (cannabis group 64%; non-users group, 75%) or modalities chosen (data not shown in [Table 1](#)).

Variable	Cannabis (n=28)	Non-users (n=28)
Age (mean ± SD)	45.1 ± 12.3	46.2 ± 11.8
Female (%)	92.9	92.9
Married (%)	50.0	50.0
Education (years)	12.5 ± 1.5	12.6 ± 1.4
Income (€)	1,200 ± 300	1,150 ± 280
Smoking (n)	3	2
Eating (n)	13	11
Both (n)	12	15

Table 1
Patient characteristics *

Patterns of cannabis use

Of the 28 FM patients using cannabis, 11 (40%) reported a duration of cannabis use of less than one year, 9 (32%) between 1 and 3 years, and 8 (29%) more than 3 years. Only 8 patients in the cannabis group have used cannabis recreationally before the medicinal use. Cannabis derivate used in every case was marijuana. The usual methods of administration were smoking and eating, and some patients use to combine both methods. Only smokers were 11%, only eaters were 46% and those using both methods were 43%. The amount and frequency of cannabis use were diverse among patients. The most frequent doses were between 1 and 2 cigarettes each time when patients smoked and 1 spoonful each time when eating. Most of the patients (n=12) used cannabis daily, while 5 used it 2–4 days per week, 3 used it less than twice a week and 8 patients used it only occasionally. Related amount of cannabis used in one day, 12 reported once a day, 11 reported 2–3 times a day and 3 reported more than 3 times a day. Source of supply of cannabis were from family and friends (n=14), illicit market (n=7), growing (n=5) and associations (n=2). A total of 19 patients have informed their doctor about cannabis use, and reduction of pharmacological treatment was accomplished in 19 (68%) patients as well when they started using cannabis.

Perceived effects of cannabis use

Main symptoms leading to cannabis use and perceived benefits is shown in [Figure 1](#). Patients used cannabis not only to alleviate pain but for almost all the symptoms associated to FM, and no one reported worsening of symptoms following cannabis use. The proportion of patients who reported strong relief ranged from 81% for sleep disorders to 14% for headache.

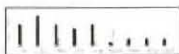
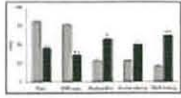


Figure 1
Symptoms and perceived relief reported by FM patients using cannabis.

All symptoms assessed by VAS showed statistically significant improvement following 2 hours of cannabis self-administration ([Figure 2](#)). The mean reduction of pain was 37.1 mm ($p<0.001$, t-Test) and of stiffness 40.7 mm ($p<0.001$). The change from baseline in VAS relaxation and somnolence scores also significantly increased (27.6 mm, $p<0.05$ and 20.0 mm, $p<0.05$ respectively). In addition, perception of well-being was significantly higher as compared with baseline (40.0 mm, $p<0.001$).

Figure 2



Perceived effects of cannabis self-administration.

Perceived side effects of cannabis use

At least one side effect was reported by 96% (n=27) of patients. The most frequent were somnolence (n=18), dry mouth (n=17), sedation (n=12), dizziness (n=10), high (n=9), tachycardia (n=8), conjunctival irritation (n=7) and hypotension (n=6). The frequency most commonly reported were 'sometimes' for somnolence, sedation, dizziness, high, tachycardia and conjunctival irritation, and 'always' for dry mouth, sedation and hypotension. No serious adverse events occurred.

Quality of life

The mental health component summary score of the SF-36 questionnaire was slightly but significantly higher in the cannabis group (mean (M)=29.6±standard deviation (SD)=8.2) than in the non-users group (M=24.9±SD=8.9), $p<0,05$, t-Test. In the physical component summary score the differences were non significant between groups (cannabis group: M=26.29±SD=6.7; non-users group: M=27.34±SD=5.8; $p=0,53$, t-Test).

No differences were found either in the Fibromyalgia Impact Questionnaire (M=65.5±SD=11.9; M=65.5±SD=12.8; $p=0.36$, t-Test) or in the Pittsburg Sleep Quality Index (M=14.1±SD=3.2; M=14.4±SD=3.3; $p=0.73$, t-Test).

Discussion

[Go to:](#)

This observational study provides information on the patterns of cannabis use for therapeutic purposes among a group of patients with FM. Most of them were middle-aged women that did not respond to current treatment and self-administered marijuana, devoid of medical advice. Patients referred cannabis use in order to alleviate pain as well as other manifestations of FM. Significant relief of pain, stiffness, relaxation, somnolence and perception of well-being, evaluated by VAS before and 2 hours after cannabis self-administration was observed.

Although the mental health component summary score of the SF-36 questionnaire was slightly but significantly higher in the cannabis group than in the non-users group, whether these findings are clinically significant remains unclear.

The external validity of this study can be limited for some factors. The main limitation is the self-selection bias, mainly related to the fact that the majority of patients in the cannabis group were recruited from a cannabis association. It is not known how these patients are different from the ones recruited from FM associations or from the rheumatology unit. In addition the patients included in the study were all responders to cannabis self-administration. Consequently, characteristics of the patients that have used cannabis and have not obtained symptoms relief are unidentified. Others limitations were the small size of the sample and, the variability of patterns of cannabis use among FM patients.

A previous observational study of patients with chronic pain of different origins using cannabis has revealed similar results regarding symptoms relief [13]. Furthermore, significant reductions in VAS score for pain, FIQ global score and FIQ anxiety score were also seen in the first randomized controlled trial of 40 FM patients with continued pain despite the use of other medications treated with nabilone (synthetic cannabinoid agonist) during 4 weeks [7]. In a recent randomized, equivalency and crossover trial, nabilone was found to have a greater effect on sleep than amitriptyline on the ISI (Insomnia Severity Index), and was marginally better on the restfulness based on the LSEQ (Leeds Sleep Evaluation Questionnaire) [8]. These results seem to indicate a possible role of cannabinoids on the treatment of FM, although it should be confirmed in further clinical trials.

Moreover, according to hypothetical and experimental evidence, a Clinical Endocannabinoid Deficiency has been proposed to be involved on the pathophysiology of FM and other functional conditions alleviated by cannabis [9]. The participation of the endocannabinoid system in multiple physiological functions such as pain modulation, stress response system, neuroendocrine regulation and cognitive functions among others, is well known [5]. Additionally, the innovative psychoneuro-endocrinology-immunology (PNEI) studies have shown that chronic pain may be strongly influenced by dysfunctions of the stress system and, particularly, the HPA-axis [14]. Studies have shown that the HPA- axis and the autonomic nervous system is disturbed in patients with fibromyalgia [3] and, polymorphisms of genes in the serotonergic, dopaminergic and catecholaminergic systems may also play a role in the pathogenesis of FM [15]. Notably, these polymorphisms all affect the metabolism or transport of monoamines, compounds that have a critical role in both sensory processing and the human stress response [16]. Endocannabinoids and cannabinoid receptors are involved in the responses of animals to acute, repeated and variable stress [17] and there is good evidence that the cannabinoid receptors play a major role in modulating neurotransmitter release such as serotonin and dopamine among others [18]. However, the endocannabinoid system and its implication in stress response in humans have not been so far investigated. Because of many methodological pitfalls in life stress research, high quality studies of the role of stress in the etiopathogenesis of unexplained chronic pain syndromes, such as fibromyalgia, are scarce.

We observe significant improvement of symptoms of FM in patients using cannabis in this study although there was a variability of patterns. This information, together with evidence of clinical trials and emerging knowledge of the endocannabinoid system and the role of the stress system in the pathophysiology of FM suggest a new approach to the suffering of these patients.

The present results together with previous evidence seem to confirm the beneficial effects of cannabinoids on FM symptoms. Further studies regarding efficacy of cannabinoids in FM as well as cannabinoid and stress response system involvement in their pathophysiology are warranted.

Acknowledgments

[Go to:](#)

We thank Klaus Langohr for the supervision of the statistical analyses, and Marta Pulido for medical editing on behalf of IMIM. Grateful thanks are given to all participants.

Footnotes

[Go to:](#)

Competing Interests: The authors have declared that no competing interests exist.

Funding: The work was partially supported by grants from Ministerio de Sanidad - Plan Nacional sobre Drogas (SOC/3386 /2004), Instituto de Salud Carlos III (FIS-Red de Transtornos Adictivos -RTA RD06/0001/1009) and Generalitat de Catalunya (AGAUR 2009 SGR 718). No additional external funding was received for this study. The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

References

[Go to:](#)

1. Wolfe F, Smythe HA, Yunus MB, Bennett RM, Bombardier C, et al. The American College of Rheumatology 1990 criteria for the classification of fibromyalgia: report of the multicenter criteria committee. *Arthritis Rheum.* 1990;33:160–172. [[PubMed](#)]
2. Abeles AM, Pillinger MH, Solitar BM, Abeles M. Narrative review: the pathophysiology of fibromyalgia. *Ann Intern Med.* 2007;146:726–734. [[PubMed](#)]
3. Martinez-Lavin M. Biology and therapy of fibromyalgia. Stress, the stress response system, and fibromyalgia. *Arthritis Res Ther.* 2007;9:216. [[PMC free article](#)] [[PubMed](#)]
4. Iskedjian M, Bereza B, Gordon A, Piwko C, Einarson TR. Meta-analysis of cannabis based treatments for

- neuropathic and multiple sclerosis-related pain. *Curr Med Res Opin.* 2007;23:17–24. [\[PubMed\]](#)
5. Pacher P, Batkai S, Kunos G. The endocannabinoid system as an emerging target of pharmacotherapy. *Pharmacol Rev.* 2006;58:389–462. [\[PMC free article\]](#) [\[PubMed\]](#)
6. Schley M, Legler A, Skopp G, Schmelz M, Konrad C, et al. Delta-9-THC based monotherapy in fibromyalgia patients on experimentally induced pain, axon reflex flare, and pain relief. *Curr Med Res Opin.* 2006;22:1269–1276. [\[PubMed\]](#)
7. Skrabek RQ, Galimova L, Ethansand Daryl K. Nabilone for the Treatment of Pain in Fibromyalgia. *J Pain.* 2008;9:164–73. [\[PubMed\]](#)
8. Ware MA, Fitzcharles MA, Joseph L, Shir Y. The effects of nabilone on sleep in fibromyalgia: results of a randomized controlled trial. *Anesth Analg.* 2010;110:604–610. [\[PubMed\]](#)
9. Russo EB. Clinical endocannabinoid deficiency (CECD): can this concept explain therapeutic benefits of cannabis in migraine, fibromyalgia, irritable bowel syndrome and other treatment-resistant conditions? *Neuro Endocrinol Lett.* 2008;29:192–200. [\[PubMed\]](#)
10. Alonso J, Prieto L, Anto JM. La version espanola del SF-36 Health Survey (Cuestionario de Salud SF-36): Un instrumento para la medida de los resultados clnicos. *Med Clin (Barc)* 1995;104:771–776. [\[PubMed\]](#)
11. Rivera J, Gonzalez T. The Fibromyalgia Impact Questionnaire: A Validated Spanish version to asses the health status in women with fibromyalgia. *Clin Exp Rheumatol.* 2004;22:554–560. [\[PubMed\]](#)
12. Royuela Rico A, Macas Fernandez JA. Propiedades clinimtricas de la version castellana del cuestionario de Pittsburg. *Vigilia-Sueno.* 1997;9:81–94.
13. Lynch ME, Young J, Clark AJ. A case series of patients using medicinal marihuana for management of chronic pain under the Canadian Marihuana Medical Access Regulations. *J Pain Symptom Manage.* 2006;32:497–501. [\[PubMed\]](#)
14. Blackburn-Munro G. Hypothalamo-pituitary-adrenal axis dysfunction as a contributory factor to chronic pain and depression. *Curr Pain Headache Rep.* 2004;2004; 8:116–24. [\[PubMed\]](#)
15. Buskila D. Developments in the scientific and clinical understanding of fibromyalgia. *Arthritis Res Ther.* 2009;11:242. [\[PMC free article\]](#) [\[PubMed\]](#)
16. Dadabhoy D, Clauw DJ. Therapy insight: fibromyalgia a different type of pain needing a different type of treatment. *Nat Clin Pract Rheumatol.* 2006;2:364–372. [\[PubMed\]](#)
17. Carrier EJ, Patel S, Hillard CJ. Endocannabinoids in neuroimmunology and stress. *Curr Drug Targets CNS Neurol Disord.* 2005;4:657–665. [\[PubMed\]](#)
18. Howlett AC, Barth F, Bonner TI, Cabral G, Casellas P, et al. International Union of Pharmacology. XXVII. Classification of cannabinoid receptors. *Pharmacol Rev.* 2002;54:161–202. [\[PubMed\]](#)



Clinical endocannabinoid deficiency (CECD): can this concept explain therapeutic benefits of cannabis in migraine, fibromyalgia, irritable bowel syndrome and other treatment-resistant conditions?

Russo EB. Neuro Endocrinol Lett. 2008.

[Show full citation](#)

Abstract

OBJECTIVES: This study examines the concept of clinical endocannabinoid deficiency (CECD), and the prospect that it could underlie the pathophysiology of migraine, fibromyalgia, irritable bowel syndrome, and other functional conditions alleviated by clinical cannabis.

METHODS: Available literature was reviewed, and literature searches pursued via the National Library of Medicine database and other resources.

RESULTS: Migraine has numerous relationships to endocannabinoid function. Anandamide (AEA) potentiates 5-HT_{1A} and inhibits 5-HT_{2A} receptors supporting therapeutic efficacy in acute and preventive migraine treatment. Cannabinoids also demonstrate dopamine-blocking and anti-inflammatory effects. AEA is tonically active in the periaqueductal gray matter, a migraine generator. THC modulates glutamatergic neurotransmission via NMDA receptors. Fibromyalgia is now conceived as a central sensitization state with secondary hyperalgesia. Cannabinoids have similarly demonstrated the ability to block spinal, peripheral and gastrointestinal mechanisms that promote pain in headache, fibromyalgia, IBS and related disorders. The past and potential clinical utility of cannabis-based

Similar articles

[Clinical endocannabinoid deficiency \(CECD\): can this concept explain therapeutic benefits of cannabis in migraine, fibromyalgia, irritable bowel syndrome and other treatment-resistant conditions?](#)

Review article

Russo EB, et al. Neuro Endocrinol Lett. 2004.

[Clinical endocannabinoid deficiency \(CECD\) revisited: can this concept explain the therapeutic benefits of cannabis in migraine, fibromyalgia, irritable bowel syndrome and other treatment-resistant conditions?](#)

Review article

Smith SC, et al. Neuro Endocrinol Lett. 2014.

[The role of the endocannabinoid system in the pathophysiology and treatment of irritable bowel syndrome.](#)

Review article

Storr MA, et al. Neurogastroenterol Motil. 2008.

[Somatic comorbidities of irritable bowel syndrome: a systematic analysis.](#)

Review article

Riedl A, et al. J Psychosom Res. 2008.

[Degradation of endocannabinoids in chronic](#)

medicines in their treatment is discussed, as are further suggestions for experimental investigation of CECD via CSF examination and neuro-imaging.

CONCLUSION: Migraine, fibromyalgia, IBS and related conditions display common clinical, biochemical and pathophysiological patterns that suggest an underlying clinical endocannabinoid deficiency that may be suitably treated with cannabinoid medicines.

PMID: 18404144 [PubMed]

Republished from

[Neuro Endocrinol Lett. 2004 Feb-Apr;25\(1-2\):31-9.](#)

[migraine and medication
overuse headache.](#)

Cupini LM, et al. Neurobiol Dis. 2008.

[See all](#)