

Fibromyalgia

Disease Report

REPORT CATEGORIES —



ENERGY & FATIGUE



PAIN

Sample Client

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Table of Contents

03 How this works

- 04 Impact
- 05 Evidence
- 06 Some things to keep in mind

07 Introduction

08 Your genetics

09 Your recommendations

67 Next Steps

- 67 Your Lab Results

DISCLAIMER

This report does not diagnose this or any other health conditions. Please talk to a healthcare professional if this condition runs in your family, you think you might have this condition, or you have any concerns about your results.

Personal information

NAME

Sample Client

SEX AT BIRTH

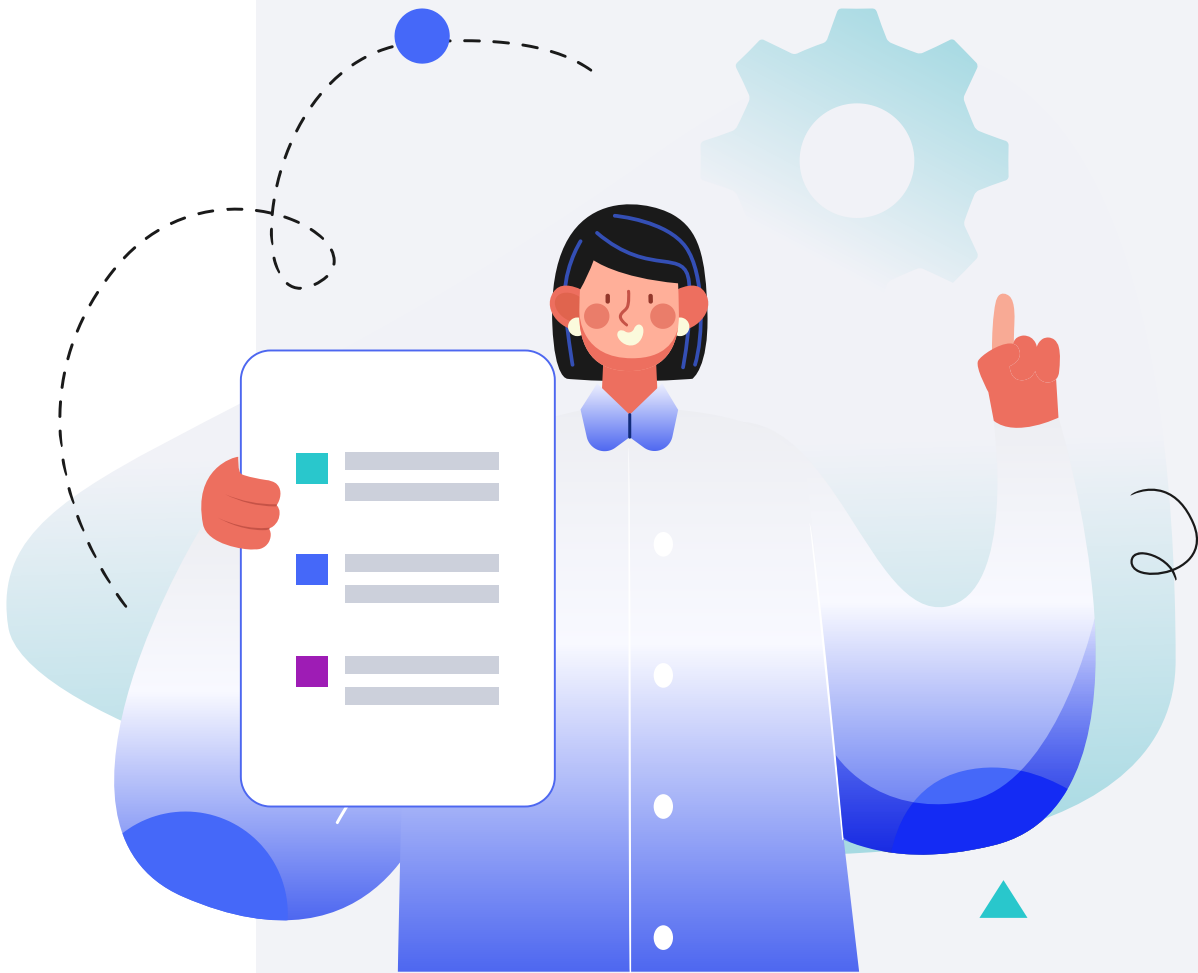
Male

HEIGHT

5ft 5" 165cm

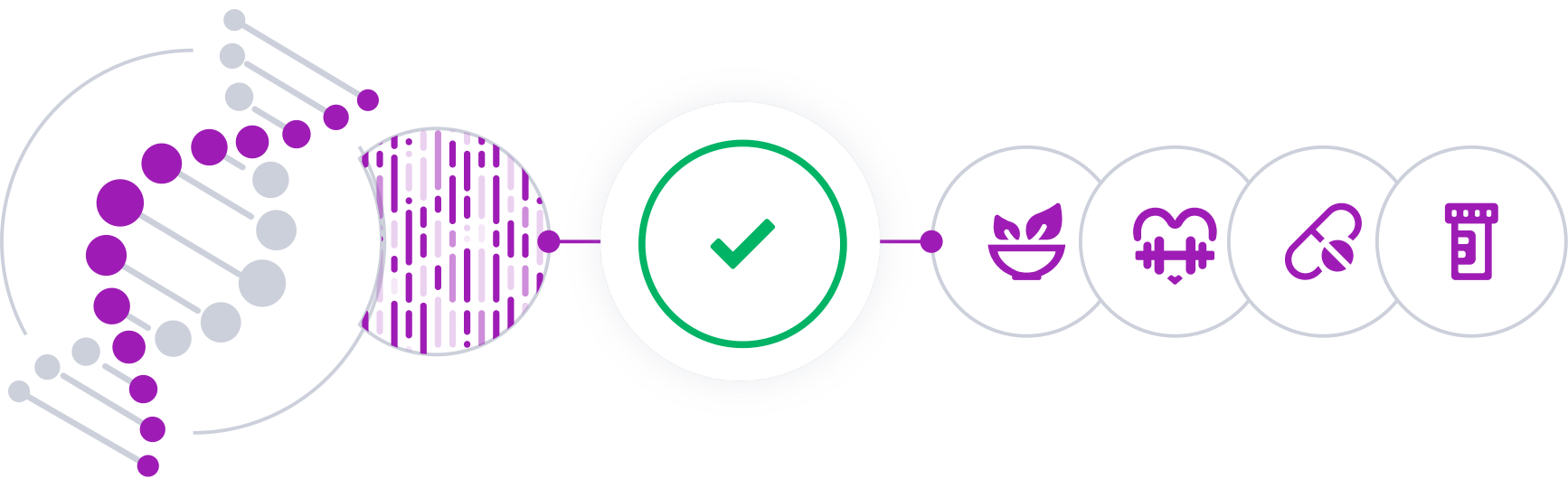
WEIGHT

137lb 62kg



How this works

Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.

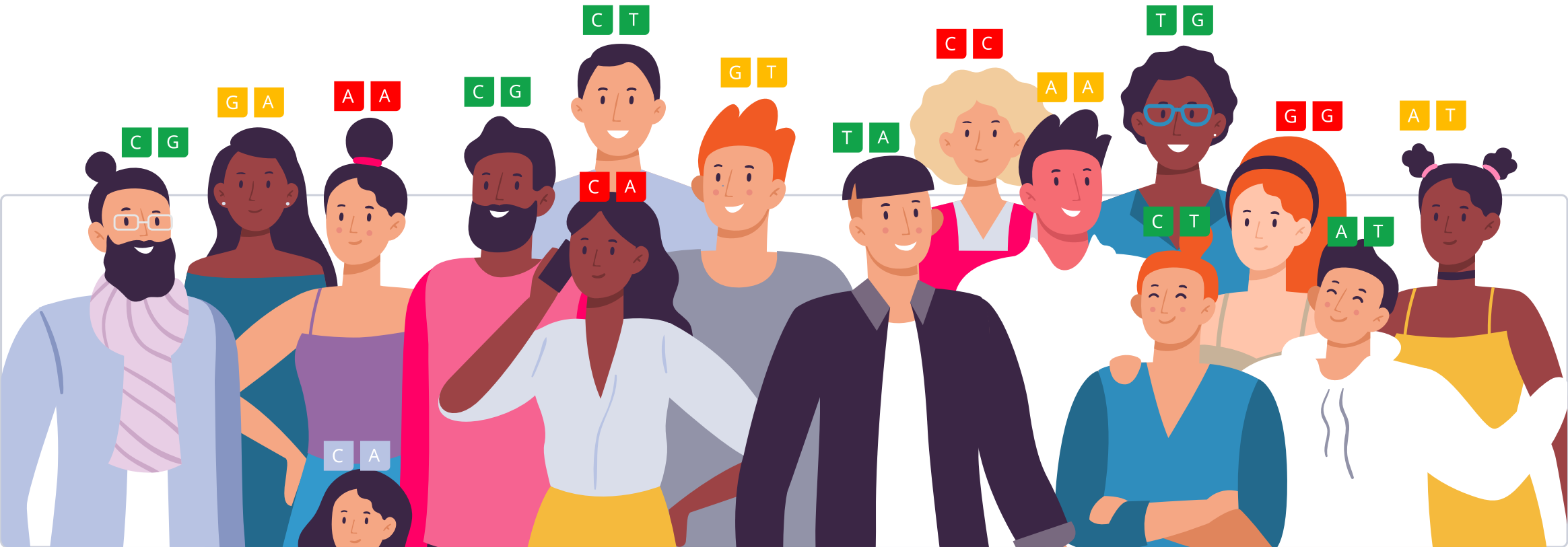


Similarly, our Trait Reports look at how your DNA influences your traits.



Your DNA is like an instruction manual — it contains a lot of information.
You can think of it as a blueprint for your body.

Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



We use artificial intelligence and machine learning to analyze all this information.
We then summarize your results as a risk score or display it on a gauge.

In total, we analyze up to 83 million genetic variants.

When we give a risk score, the risk icon tells you if you are at a higher or lower risk compared to other people:



Genotype color info:

AA

You don't have any risk alleles

AA

You have 1 risk allele

AA

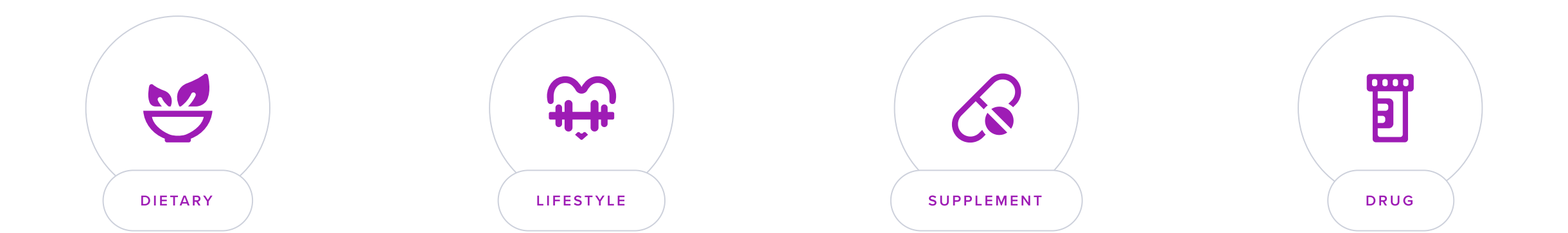
You have 2 risk alleles

Your risk is also displayed as a percentile. This will tell you how your risks compare to our sample population. The lower your percentile number, the lower your risk. The "50th percentile" would be an average risk.

Similarly, the gauge tells you your relative risk score compared to our sample population, or it indicates a specific trait or haplotype you are more likely to have based on your genetic variants.

When applicable, we also list top evidence-based recommendations that may help lower your risk. The focus is on recommendations that may be of benefit to you, based on your genetics.

Our recommendations come in four categories: lifestyle, diet, supplements and drugs. The following icons tell you which category a recommendation falls into:



Our team of scientists also ranks each recommendation.
We rank based on impact and the strength of evidence in the medical literature.

Impact shows how strongly a recommendation will affect your health in a certain area.
Evidence is how much scientific support there is for the recommendation. Rankings are from 1 to 5 (low to high):



Impact

Impact scores range from 1-5. These scores reflect how much of an effect each recommendation can have. An impact score of 5 predicts the biggest effect.

When a recommendation affects something we can measure, we use those measurements to assign the impact score. For example, a recommendation that decreases cholesterol by 20% will have a higher impact score than one that decreases it by 5%.

Some recommendations affect things that we cannot directly measure, like stress or mood. For these, the impact score is based on how well they work relative to other recommendations and standard treatments. The best ones get the highest scores.

If there is a lot of research that shows a recommendation works especially well for your genotype, the impact score gets increased.

Recommendation Evidence

- 5 / 5
- Recommendations that are considered effective and generally recommended by experts and medical bodies.
-
- 4 / 5
- Recommendations that are considered likely effective and that have multiple independent meta-analyses and a great many studies supporting them.
-
- 3 / 5
- Recommendations that are considered possibly effective and have many studies supporting them
-
- 2 / 5
- Recommendations that have insufficient evidence, with two or several clinical trials supporting them, or many studies but with ambiguous results.
-
- 1 / 5
- Recommendations that have insufficient evidence, with a single clinical trial, or with many studies most of which didn't find support for the recommendation.
-
- 0 / 5
- No evidence in humans.

Genotype-specific Evidence

- High-quality
- Direct evidence that a recommendation helps more in people with your gene variant (many clinical trials, a few large clinical trials, or a meta-analysis).
- Medium-quality
- Direct evidence that a recommendation helps more in people with your gene variant (a few clinical trials or one large clinical trial).
- Low-quality
- Direct evidence that a recommendation helps more in people with your gene variant (a single clinical trial or more trials with inconsistent results).
- Indirect
- A recommendation may help more in people with your gene variant because it targets a specific gene or protein affected by your variant (e.g., MTHFR, dopamine).
- In theory
- A recommendation may help more in people with your gene variant because it targets a specific mechanism affected by your variant (e.g., inflammation, oxidative stress).

Some things to keep in mind:

- Genetics doesn’t play a considerable role in a condition or a trait.
- There is not enough research available to estimate a genetic predisposition.
- There are technical limitations to estimating or presenting a genetic predisposition.
- The topic is sensitive, and a genetic predisposition should only be estimated and presented by a healthcare professional.

Introduction

Fibromyalgia is a chronic condition characterized by widespread pain, fatigue, sleep disturbances, and often cognitive difficulties (sometimes referred to as "fibro fog").

The exact cause of fibromyalgia is still unknown, but it likely involves a variety of genetic, environmental, and psychological factors.

Symptoms can vary in intensity but commonly include:

- Widespread pain described as a constant dull ache
- Fatigue, even after sleeping for long periods
- Cognitive difficulties, such as trouble focusing or paying attention
- Headaches, often tension-type or migraines
- Intestinal cramps and bladder problems
- Depression and anxiety
- Sensitivity to cold or heat

Diagnosing fibromyalgia can be challenging since there's no specific test for it. Instead, diagnosis is typically based on symptoms and ruling out other potential causes.

Risk Factors and Genetics

Factors that might increase the risk of developing fibromyalgia include:

- Gender, with women being diagnosed far more often than men
- Other diseases, such as lupus or rheumatoid arthritis
- Traumatic events or injuries
- Repetitive injuries due to certain jobs or activities
- Viral infections
- Genetics

There is evidence to suggest that fibromyalgia has a genetic component. People with a family history of fibromyalgia are more likely to develop the condition. Studies have pointed to genes involved in the way the body processes pain signals, brain chemicals, and stress.



MORE LIKELY

More likely to have fibromyalgia based on 1,457,603 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
ELOVL6	rs180804111	CC
GALNT17	rs112477646	CC

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

Your Recommendations

Your recommendations are prioritized according to the likelihood of it having an impact for you based on your genetics, along with the amount of scientific evidence supporting the recommendation.

You’ll likely find common healthy recommendations at the top of the list because they are often the most impactful and most researched.

		DOSAGE			DOSAGE
1	Physical Therapy	30 minutes	2	Hyperbaric Oxygen Therapy	90 minutes
3	Aerobic Exercise (Cardio)	1 hour	4	Psychotherapy	1 hour
5	Cognitive-Behavioral Therapy (CBT)		6	Aquatic Exercise	1 hour
7	Dance	30 minutes	8	Music Therapy	30 minutes
9	Myofascial Release	5 minutes	10	Exercise At Least One Hour a Day	1 hour
11	Maintain Optimal Vitamin D Levels	1000 iu	12	Traditional Chinese Exercise	1 hour
13	Neurofeedback	1 hour	14	Guided Imagery	30 minutes
15	Meditation	30 minutes	16	Low-Level Laser Therapy (LLLT)	30 seconds
17	Tai Chi	1 hour	18	Mindfulness-Based Stress Reduction (MBSR)	2 hours
19	Acetyl-L-Carnitine	500 mg	20	Transcranial Direct Current Stimulation (tDCS)	30 minutes
21	Pilates	30 minutes	22	Pain Neuroscience Education (PNE)	
23	Apply Heat	15 minutes	24	Electroacupuncture	
25	Massage	30 minutes	26	Coenzyme Q10 (CoQ10)	100 mg
27	Qigong	1 hour	28	Biofeedback	
29	Melatonin	500 mcg	30	Bath Therapy	20 minutes

31	Acupuncture	1 hour
32	Transcutaneous Electrical Nerve Stimulation (TENS)	30 minutes
33	Acceptance and Commitment Therapy (ACT)	
34	Mediterranean Diet	
35	D-Ribose	15 g
36	Magnesium Chloride	200 mg
37	Elimination Diet	
38	Airway Muscle Training	30 minutes
39	Binaural Beats	30 minutes
40	SAM-e	400 mg
41	Magnesium Citrate	200 mg
42	Connective tissue massage	
43	Magnesium	350 mg
44	Meditation Awareness Training	
45	Progressive Muscle Relaxation	10 minutes
46	Yoga	30 minutes
47	Core-Strengthening Exercises	20 minutes
48	Saffron	20 mg
49	Manual Lymphatic Drainage	
50	5-HTP	100 mg
51	Emotional Awareness And Expression Therapy	
52	Visualization	10 minutes
53	Swimming	30 minutes
54	Cupping Therapy	15 minutes
55	Chlorella	3 g
56	Pet Therapy	30 minutes
57	Stability Training	30 minutes
58	Whole-Body Cryotherapy	2 minutes
59	Shiatsu	
60	Self-Hypnosis	20 minutes
61	Autogenic Training	10 minutes
62	PEMF	30 minutes
63	Aromatherapy	30 minutes
64	Niacin Supplements	20 mg
65	Histidine	500 mg

1

Physical Therapy

IMPACT3 / 5

EVIDENCE3 / 5

How to implement

Attend physical therapy sessions 2-3 times per week for a duration of 4-6 weeks, depending on your specific condition and the advice of your healthcare provider. Each session typically lasts about 30-60 minutes, where a licensed therapist will guide you through targeted exercises, stretches, and possibly other treatments like electrical stimulation or ultrasound therapy.

TYPICAL STARTING DOSE

30 minutes

Description

Physical therapy is a therapeutic practice focused on optimizing physical function and mobility through specialized exercises, manual techniques, and therapeutic modalities. It helps individuals recover from injuries, manage chronic conditions, and improve overall physical well-being by enhancing strength, flexibility, and pain management.

Physical therapy (physiotherapy) helps people regain or maintain their ability to move [\[R\]](#).

Physical therapy can involve [\[R\]](#):

- Joint or muscle exercises
- Corrective movements
- Massage
- Education and advice

People mainly use physical therapy to help with [\[R\]](#), [\[R\]](#):

- Pain and injury
- Stroke recovery
- Chronic health conditions
- Headaches

Mirror therapy uses a mirror placed between the arms or legs. The image of a moving arm or leg gives the illusion of normal movement in the affected one. This therapy stimulates different brain regions and aims to improve mobility [\[R\]](#).

Constraint-induced movement therapy is another type of physical therapy. It consists of restraining the healthy leg or arm to increase the use of the affected one [\[R\]](#).

How it helps

Aquatic physical therapy may improve the clinical symptoms, physical function, and quality of life in people with fibromyalgia. It may be most effective when practiced for at least 20 weeks [\[R\]](#), [\[R\]](#).

Massage therapy (for at least 5 weeks) has shown potential benefits for reducing pain, anxiety, and depression in fibromyalgia patients, although more extensive research is necessary to fully confirm these advantages. Massage, especially myofascial release massage, may also reduce fatigue, stiffness, and overall life quality. The following massage techniques may also offer benefits, but there's less evidence supporting them [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Connective tissue massage
- Manual lymphatic drainage
- Shiatsu

Despite these findings, some experts remain skeptical about recommending massage as a definitive therapy for fibromyalgia [\[R\]](#).

Physical therapy may help by:

- Making brain cells less sensitive to pain perception [\[R\]](#), [\[R\]](#)
- Reducing inflammation [\[R\]](#)

- Restoring normal joint movement [\[R\]](#)

2



Hyperbaric Oxygen Therapy

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Schedule and attend sessions in a hyperbaric oxygen therapy chamber as your doctor prescribes, typically for about 60 to 90 minutes per session. The exact number of sessions required can vary based on the condition being treated, but it often ranges from 20 to 40 sessions, which may be conducted daily or a few times a week.

TYPICAL STARTING DOSE

90 minutes

Description

Hyperbaric oxygen therapy increases the amount of oxygen in the blood and tissues, which can help to improve circulation, reduce inflammation, and promote healing.

How it helps

A meta-analysis of 9 studies and 288 participants concluded that hyperbaric oxygen therapy improves pain, tender points, fatigue, multidimensional function, and sleep disturbance in patients with fibromyalgia [\[R\]](#).

Please note: Hyperbaric oxygen therapy is a potentially dangerous procedure that should only be performed under medical supervision. People with pneumothorax or congestive heart failure are at especially high risk of adverse effects. Because highly concentrated oxygen can easily catch on fire, avoid potential fire sources around hyperbaric oxygen chambers, oxygen gas cylinders, tanks, and concentrators [\[R\]](#), [\[R\]](#).

3



Aerobic Exercise (Cardio)

IMPACT3 / 5

EVIDENCE3 / 5

How to implement

Engage in at least 150 minutes of moderate-intensity aerobic exercise or 75 minutes of vigorous-intensity activity each week. Distribute this time over at least 3 days per week, avoiding consecutive days of vigorous exercise to allow for recovery.

TYPICAL STARTING DOSE

1 hour

Description

Engaging in regular aerobic exercise, such as running, swimming, or cycling, offers numerous health benefits, including improved cardiovascular fitness, weight management, and mood enhancement. It supports overall physical and mental well-being while reducing the risk of chronic diseases.

Cardio, short for cardiovascular exercise, is any type of physical activity that temporarily increases your heart rate. Examples include **running, cycling, swimming, and brisk walking**.

Regular cardio exercise has many benefits for your overall health. It can help lower your risk of heart disease and diabetes, support weight loss, and improve your mood and energy levels. To get the most out of cardio, try to do it for at **least 30 minutes, 3-5 times a week**.

Interval training is a type of cardio that combines periods of high-intensity training with brief rest periods.

How it helps

Numerous studies on fibromyalgia highlight the benefits of exercise interventions. Aerobic exercise has broad positive effects, while resistance exercise primarily benefits pain and physical health. Stretching exercises improve quality of life but not depression. Recommendations include aerobic exercise 2-3 times weekly for at least 4 weeks. Complementary and alternative medicine (CAM) exercises, especially dance and Tai chi, show promise, though more research is needed. Exercise-based interventions positively impact sleep quality, with mind-body and combined exercises being the most effective. Supervised aerobic exercise at recommended intensity levels enhances overall well-being and physical function in fibromyalgia patients, potentially reducing pain and tender points [[R](#), [R](#), [R](#), [R](#), [R](#), [R](#)].

4



Psychotherapy

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Schedule and attend regular sessions with a licensed psychotherapist, typically once a week for 50-60 minutes, over a period of several months to years depending on your individual needs and progress. Consistency is key, and the duration can vary widely based on personal goals and the type of psychotherapy being practiced.

TYPICAL STARTING DOSE

1 hour

Description

Psychotherapy is a broad term for therapeutic approaches that address mental and emotional health issues through talking and counseling. It can be used to treat a wide range of psychological and emotional challenges.

Psychotherapy (talk therapy) involves talking about your health with a licensed therapist. It may improve the way you react to certain experiences and help reduce stress [R, R].

Psychotherapy is a great way to improve many conditions, including [R, R, R, R, R, R]:

- Depression
- Anxiety disorders
- PTSD
- OCD
- Weight problems
- Eating disorders

Cognitive-behavioral therapy (CBT) is a type of psychotherapy. CBT aims to change the way you think about your life and yourself. Through CBT, a therapist can help you develop healthy coping mechanisms [R].

How it helps

The following mental/emotional factors can affect pain [R, R, R]:

- Thoughts
- Emotions
- Social and familial support
- Cultural background
- Context and memory associated with the pain (through conditioning)

Several meta-analyses (the most recent one with 75 trials and 9,401 participants) found that psychological therapies slightly reduce pain, disability, and distress in people with fibromyalgia and other conditions with chronic pain [R, R, R, R].

Moreover, 2 meta-analyses (the most recent one with 18 studies) found that psychological interventions have moderate effects in reducing healthcare and medication use [R].

Engaging in cognitive-behavioral therapy (CBT, about 30 hours spread over approximately 9 weeks) could be beneficial for people living with fibromyalgia. Research encompassing various studies and thousands of participants shows that CBT may help improve aspects of fibromyalgia, including [R, R, R, R]:

- Depressed mood
- Sleep quality
- Pain management

CBT may also help with pain relief and psychological well-being in the short term. In the long term, it may offer modest improvements in pain, negative mood, and disability [R].

5



Cognitive-Behavioral Therapy (CBT)

IMPACT3 / 5

EVIDENCE2 / 5

How to implement

Schedule weekly sessions with a certified cognitive-behavioral therapist for a period of 5 to 20 weeks. Engage actively in exercises assigned by your therapist both during sessions and as homework to apply CBT strategies to daily life.

Description

Cognitive-behavioral therapy (CBT) is a psychotherapeutic approach that has been effective in treating various mental health conditions by helping individuals identify and change negative thought patterns and behaviors. It is widely used for conditions like depression, anxiety, and phobias.

Psychotherapy (talk therapy) involves talking about your health with a licensed therapist. It may improve the way you react to certain experiences [\[R\]](#).

Talk therapy is a great way to improve many conditions, including [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Depression
- Anxiety disorders
- PTSD
- OCD
- Substance use disorder
- Bipolar disorder

Cognitive-behavioral therapy (CBT) is a type of talk therapy. CBT aims to change the way you think about your life and yourself. Through CBT, a therapist can help you develop healthy coping mechanisms [\[R\]](#).

How it helps

Engaging in cognitive-behavioral therapy (CBT, about 30 hours spread over approximately 9 weeks) could be beneficial for people living with fibromyalgia. Research encompassing various studies and thousands of participants shows that CBT may help improve aspects of fibromyalgia, including [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Depressed mood
- Sleep quality
- Pain management

CBT may also help with pain relief and psychological well-being in the short term. In the long term, it may offer modest improvements in pain, negative mood, and disability [\[R\]](#).

6



Aquatic Exercise

IMPACT3 / 5

EVIDENCE2 / 5

How to implement

Participate in aquatic exercise sessions, such as swimming or water aerobics, for 60 minutes, 3 to 5 times per week. Ensure the exercise intensity is moderate, allowing you to talk but not sing during the activity. Consistency over time is key, so aim to incorporate this into your weekly routine for at least 3 to 6 months to observe benefits.

TYPICAL STARTING DOSE

1 hour

Description

Aquatic exercise involves physical activity performed in water, such as swimming, water aerobics, or aquatic therapy. It is gentle on the joints, making it suitable for individuals with mobility issues, and can help improve cardiovascular fitness and muscle strength.

Aquatic exercise is any type of low-impact physical activity performed in a pool. In this type of cardio exercise, water helps the body float, which reduces gravity and makes the practice more comfortable and tolerable [\[R\]](#), [\[R\]](#).

Compared to land-based exercise, aquatic exercise may be better by [\[R\]](#):

- Reducing the stress and impact on joints
- Lowering fracture risk

Hence, it is usually **recommended for the elderly**. Aquatic exercise is also suitable for people who don't know how to swim [\[R\]](#).

How it helps

Aquatic exercise, often in warm water, performed in waist, chest, or shoulder depth water, may help reduce [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Tender points
- Pain
- Stiffness

It may also help improve:

- Physical function
- muscle strength
- Fitness
- Mental Health

However, more studies are needed to confirm these benefits.

7



Dance

IMPACT

2 / 5

EVIDENCE

3 / 5

How to implement

Engage in dance activities for at least 30 minutes, three times per week. You can choose any form of dance you enjoy, such as ballroom, hip hop, or salsa, and you can dance at home, in a studio, or in a group class setting.

TYPICAL STARTING DOSE

30 minutes

Description

Dancing involves moving your body to music. Many people take dance classes to learn various styles of dance and improve their skills. Examples include:

- Ballet
- Zumba
- Belly dancing
- Hip hop
- Salsa

Dancing is a fun, creative, and relaxing activity. It can also provide a range of health benefits, improving your heart health, brain health, fitness, and more.

How it helps

Dance therapies (60-120 minutes/session, 1-2x/week for 12 to 24 weeks) may alleviate fibromyalgia symptoms by [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Diminishing pain
- Enhancing quality of life
- Improving physical function and well-being
- Reducing depression and anxiety

Various dance forms have been studied, including:

- Aerobic dance
- Belly dance
- Dance movement therapy
- Biodanza
- Zumba [\[R\]](#).

Therapy including a creative element may bring greater improvements in pain, disease impact, and quality of life than therapy focused on repetitive movements [\[R\]](#).

However, most studies are small and low-quality. They only focus on women and a few dance styles. Hence, more research is needed to confirm the benefits of dance therapy on fibromyalgia [\[R\]](#), [\[R\]](#).

8



Music Therapy

IMPACT2 / 5

EVIDENCE3 / 5

How to implement

Engage in music therapy sessions for at least 30 minutes a day, three times a week. These sessions can involve listening to music, playing an instrument, singing, or writing songs, facilitated by a certified music therapist if possible.

TYPICAL STARTING DOSE
30 minutes

Description

Music therapy is a therapeutic approach that uses music to address physical, emotional, cognitive, and social needs. It can improve mental health, enhance emotional expression, and support overall well-being.

[Music](#) therapy is a form of therapy that involves making, reflecting on, and/or listening to music. It can be applied individually or in groups and may not require the presence of a therapist [\[R\]](#).

Music therapy provides tools for body relaxation and positive imagery. It aims to improve communication, quality of life, and well-being [\[R\]](#), [\[R\]](#).

How it helps

A meta-analysis of 7 trials concluded that music therapy improves the Pain Visual Analog Scale and Beck Depression Scale but not the McGill Pain Scale [\[R\]](#).

Music therapy may help by reducing pain and fatigue through the release of endorphins. It can also alleviate stress and anxiety, improving overall well-being and quality of life.

9



Myofascial Release

IMPACT

2 / 5

EVIDENCE

3 / 5

How to implement

Incorporate myofascial release into your routine by using tools like foam rollers or massage balls, focusing on tense areas for about 5-20 minutes daily. You can also seek professional myofascial release therapy sessions, which typically last about 30-60 minutes, 1-2 times per week for targeted treatment.

TYPICAL STARTING DOSE

5 minutes

Description

Myofascial release is a type of massage therapy that can help to improve range of motion, reduce pain, and increase circulation. It can also help to improve posture and reduce stress.

How it helps

Myofascial Release helps in Fibromyalgia by releasing tension in the connective tissue (fascia) that covers muscles, providing relief from pain and stiffness. Improved flexibility and circulation from this therapy can also help manage fatigue and sleep difficulties associated with Fibromyalgia.

A meta-analysis of 10 trials and 145 participants found that myofascial release had large, positive effects on pain and medium effects on anxiety and depression in people with fibromyalgia. The effects on pain and depression were maintained in the medium and short term, respectively. Another meta-analysis (6 studies and 279 participants) found large effects on pain post-treatment and moderate effects after 6 months. The study also found moderate evidence that self-myofascial release improves sleep and quality of life [\[R\]](#), [\[R\]](#).

10



Exercise At Least One Hour a Day

IMPACT

2 / 5

EVIDENCE

3 / 5

How to implement

Dedicate a minimum of 60 minutes to moderate-intensity activities such as brisk walking, swimming, or cycling. Do this most days of the week, aiming for at least 5 days to optimize benefits.

TYPICAL STARTING DOSE

1 hour

Description

[Exercise](#) can do wonders for your health. It can help you lose weight, improve your heart health, boost your mood, and more [\[R\]](#).

There are many ways you can be active. You can walk, run, swim, dance, or play team sports. **Everything counts, and it's never too late to start!**

Try to get at least **60 minutes of moderate physical activity on most days**, including walking. **Getting a mix of cardio (min 150 min/day) and strength training (min 2 times a week) may be optimal.**

How it helps

People with fibromyalgia may avoid exercise to avoid soreness and pain afterwards. However, their dropout rates from studies involving exercise are similar to those of healthy people. This means that exercise may also be a feasible therapy for people with fibromyalgia [\[R\]](#), [\[R\]](#).

Exercise may reduce fibromyalgia symptoms such as pain, especially when [\[R\]](#):

- Practiced at least 30 minutes and up to 60 minutes a day
- Comprising a 13 to 24-week routine
- Including aerobic exercises

A gradual increase in exercise intensity may be necessary to ensure comfort and safety and reduce dropout.

11



Maintain Optimal Vitamin D Levels

IMPACT

2 / 5

EVIDENCE

3 / 5

How to implement

Check your vitamin D levels, they should ideally be in the 30-66 ng/mL range. If your levels are lower than that, take a vitamin D supplement, 1000-4000 IU daily, to reach an optimal range.

TYPICAL STARTING DOSE

1000 iu

Description

Vitamin D, often referred to as the "sunshine vitamin," can be synthesized by the skin when exposed to sunlight, as well as being found in fish, eggs, and fortified milk. It helps regulate calcium absorption, promoting strong bones and a healthy immune system. Vitamin D deficiency can lead to conditions like rickets in children and osteoporosis in adults.

Your body needs [vitamin D](#) for strong bones. Vitamin D also plays a role in [\[R\]](#):

- Mood
- Immunity
- Heart health
- Blood sugar control

[Sunlight](#) is our main source of vitamin D. Experts recommend getting at least **5-15 minutes of midday sun, 2-3 times per week**. People with darker skin and those living at high latitudes may need longer periods of sun exposure [\[R, R\]](#).

Foods like fish, eggs, and fortified milk provide small amounts of vitamin D. **People lacking vitamin D should consider taking a supplement** [\[R\]](#).

How it helps

People with fibromyalgia are more likely to have hypovitaminosis D (low vitamin D levels). People with fibromyalgia and low vitamin D levels, especially below 8-10 ng/mL, may experience worse symptoms, anxiety, and depression [\[R, R, R\]](#).

In line with this, vitamin D supplementation may enhance physical function, improve emotional health and social function, and overall general health. The impact of vitamin D on pain reduction is inconclusive [\[R, R\]](#).

12



Traditional Chinese Exercise

IMPACT2 / 5

EVIDENCE3 / 5

How to implement

TYPICAL STARTING DOSE

1 hour

Description

Traditional Chinese exercise encompasses practices like Tai Chi and Qigong. It combines slow, deliberate movements with breath control and meditation. These exercises are aimed at enhancing physical health, mental clarity, and emotional stability by promoting the flow of qi (vital energy) throughout the body. They are suitable for all ages and fitness levels, offering a holistic approach to well-being that has been refined over centuries [R].

How it helps

For individuals with fibromyalgia, incorporating Traditional Chinese Exercise (TCE), may [R, R, R]:

- Reduce pain
- Improve sleep quality
- Alleviate depression
- Enhance quality of life

Studied TCE practices include

- Yoga
- Qigong
- Tai Chi
- Badunjin
- Wuqinxi

13



Neurofeedback

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Attend neurofeedback sessions with a trained therapist, usually once or twice a week, for a minimum of 20 sessions. Each session typically lasts 30 to 60 minutes where sensors are placed on your scalp to monitor brainwave activity, and feedback is given in real-time to help you learn to control or alter your brain functions.

TYPICAL STARTING DOSE

1 hour

Description

Neurofeedback is a therapeutic technique that helps individuals regulate brain activity, potentially improving focus, reducing anxiety, and enhancing cognitive function by providing real-time feedback on brainwave patterns.

How it helps

A comprehensive review of 17 studies found that using electroencephalography (EEG)-neurofeedback in people with fibromyalgia may improve [\[R\]](#):

- Anxiety
- Depression
- Pain

Traditional EEG neurofeedback was the most common technique. However, due to the heterogeneity of the studies, it's challenging to draw broad conclusions. Hence more studies are needed to confirm these benefits [\[R\]](#).

14



Guided Imagery

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Find a quiet, comfortable place to sit or lie down where you can spend 20 to 30 minutes without interruptions. Close your eyes and take deep breaths to relax. Then, listen to a guided imagery audio recording or follow a script where you imagine a peaceful scene or scenario in detail. Do this practice daily, ideally at the same time each day, to reduce stress and improve well-being.

TYPICAL STARTING DOSE

30 minutes

Description

Guided imagery is a relaxation technique that involves using mental images to promote relaxation, reduce stress, and manage pain. It can have a positive impact on mental well-being and overall stress management.

Guided imagery is a relaxation technique that involves visualizing positive, peaceful settings. Guided imagery aims to [\[R\]](#), [\[R\]](#):

- Improve mind-body connection
- Enhance well-being
- Reduce stress and anxiety
- Improve immunity

How it helps

In seven trials involving 387 subjects with fibromyalgia, guided imagery/hypnosis showed a clinically significant benefit on pain and psychological distress over controls [\[R\]](#).

In six trials involving 239 subjects with fibromyalgia, 9 sessions of hypnosis/guided imagery showed a significant reduction in pain compared to controls. However, it did not improve health-related quality of life [\[R\]](#).

15



Meditation

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Set aside 10-20 minutes each day in a quiet space without distractions to practice meditation. Focus on your breath or perform guided meditation using an app or audio track.

TYPICAL STARTING DOSE
30 minutes

Description

Meditation is a mindfulness practice that can reduce stress, improve mental clarity, and promote relaxation. Regular meditation is associated with numerous mental and emotional health benefits, including reduced anxiety and enhanced emotional well-being.

Meditation is a relaxation technique that trains your mind to focus and redirect your thoughts. Some of the main types of meditation are [\[R\]](#):

- Mindfulness
- Focused
- Transcendental
- Mantra
- Moving

People use meditation to improve [\[R\]](#), [\[R\]](#):

- Stress and anxiety
- Mood
- Sleep disturbances
- Pain

How it helps

Meditation practice may help with fibromyalgia symptoms, such as [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Pain
- Sleep quality
- Mental health
- Quality of life

A regular meditation practice may offer greater benefits [\[R\]](#).

Studied meditation styles include [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Mindfulness-based stress reduction (MBSR)
- Meditation awareness training

Further, high-quality research is needed to support these benefits.

16



Low-Level Laser Therapy (LLLT)

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Use a low-level laser therapy device, as directed by its manual or a healthcare professional, on the affected area. Generally, treatment involves applying the laser for a specified duration, often between 30 seconds to several minutes, per treatment area. Sessions can be conducted 2-3 times per week for a period of 4-12 weeks, depending on the condition being treated and the device used.

TYPICAL STARTING DOSE

30 seconds

Description

Low-level laser therapy (LLLT), also known as photobiomodulation, is a type of light therapy that uses low-intensity lasers to promote healing. It has been shown to be effective in treating a variety of conditions, including pain, inflammation, and wound healing.

How it helps

The analysis of 9 studies involving 325 people with fibromyalgia showed improvements after LLLT in [\[R\]](#):

- Pain severity
- Tender points
- Fatigue
- Stiffness
- Anxiety
- Depression

However, adding LLLT to the standard exercise didn’t show additional benefits.

LLLT may alleviate pain by lowering [\[R\]](#):

- Oxidative stress
- Inflammation
- Hemorrhage

17



Tai Chi

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Practice Tai Chi for 30 to 60 minutes at least twice a week. Choose a quiet, spacious area and follow along with a qualified instructor, either in person at a class or through an online video tutorial, to ensure proper technique and maximum benefit.

TYPICAL STARTING DOSE

1 hour

Description

Tai Chi is a traditional Chinese mind-body practice involving slow, flowing movements and deep breathing. It is known for its potential to reduce stress, improve balance, and enhance overall physical and mental well-being.

Tai chi involves gentle movements and breathing to strengthen and relax the mind and body. Practicing tai chi may help [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Manage pain
- Improve fitness
- Increase well-being
- Improve sleep and mood

How it helps

A meta-analysis of 6 randomized controlled trials involving 657 people with fibromyalgia found that Tai Chi (for 12-16 weeks) may improve [\[R\]](#):

- Pain
- Fatigue
- Sleep Quality
- Depression
- Quality of life

More extensive research is needed to solidify these findings.

18



Mindfulness-Based Stress Reduction (MBSR)

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Enroll in an 8-week MBSR course, which includes a weekly 2.5-hour class, one all-day class after the sixth week, and 45 minutes of daily home practice guided by assignments and instructional recordings.

TYPICAL STARTING DOSE

2 hours

Description

Mindfulness-Based Stress Reduction (MBSR) is a structured program that teaches mindfulness techniques to reduce stress and improve overall mental and emotional health. MBSR has been shown to help individuals cope with chronic pain, anxiety, and other stress-related conditions.

How it helps

Studies involving more than 700 people with fibromyalgia suggest that mindfulness-based stress reduction (MBSR) could offer short-term benefits by slightly improving quality of life and reducing pain. However, the evidence is of low quality. Further, high-quality research is needed to support these benefits [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

MBSR may help by keeping higher levels of the anti-inflammatory messenger IL-10 [\[R\]](#).

19



Acetyl-L-Carnitine

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Take 500-1,000 mg of Acetyl-L-Carnitine per day, split into 2 or 3 doses, with or without food. Joe prefers taking 500 mg in the morning. It can be taken indefinitely for chronic conditions or for a period of several months for acute concerns.

TYPICAL STARTING DOSE

500 mg

Description

Carnitine is a protein building block (amino acid). It comes in many forms, such as acetyl-L-carnitine. Acetyl-L-carnitine may help with nerve damage and mood problems.

Carnitine is a protein building block (amino acid). It comes in many forms, such as acetyl-L-carnitine [R, R, R].

Acetyl-L-carnitine may help with [R, R, R]:

- Nerve damage
- Mood problems
- Cognitive decline

Doctors are also studying its potential effect on drug addiction [R].

How it helps

Acetyl-L-Carnitine may improve energy production in cells and reduce fatigue, which is commonly experienced by individuals with fibromyalgia.

65 women with fibromyalgia received duloxetine 60 mg/day or acetyl L-carnitine 1500 mg/day (500 mg, 3x/day). Both led to a general clinical improvement, with positive effects on pain and depressive symptoms; but neither induced a significant improvement in anxiety. Both had a positive effect on the physical component of the quality of life, but only duloxetine improved the psychological component [R].

In a trial with 102 fibromyalgia (FMS) patients, acetyl L-carnitine (LAC) treatment showed promise. It significantly reduced pain and tender points, and improved various aspects of patients' health and mental well-being, suggesting potential benefits for FMS management [R].

In a study involving fibromyalgia (FM) patients already on pregabalin (PGB) and duloxetine (DLX), adding palmitoylethanolamide (PEA) and acetyl-L-carnitine (ALC) for 12 weeks (Group 2) led to significant improvements in pain severity, Fibromyalgia Impact Questionnaire scores, and Fibromyalgia Assessment Status scores didn't improve further [R].

20



Transcranial Direct Current Stimulation (tDCS)

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Use a tDCS device for 20 to 30 minutes per session, targeting specific brain areas depending on the desired outcome. Sessions can be daily or a few times a week, under the guidance of a medical professional or trained specialist to ensure safety and effectiveness.

TYPICAL STARTING DOSE

30 minutes

Description

Transcranial Direct Current Stimulation (tDCS) is a non-invasive brain stimulation technique that uses a low electrical current to modulate neural activity. It has been investigated for its potential in cognitive enhancement, mood regulation, and pain management.

How it helps

A meta-analysis consolidating findings from 25 studies involving 1,061 people with fibromyalgia found that neuromodulation [\[R\]](#):

- Alleviated pain and depression
- Improved functioning

tDCS with electrodes positioned at F3-F4 helped with depression, especially in older people.

21



Pilates

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Engage in Pilates exercises for at least 20-30 minutes, 3 times a week. Focus on core strength, flexibility, and mindful breathing. It is suitable for both beginners and advanced individuals, adjusting the difficulty of exercises as necessary.

TYPICAL STARTING DOSE

30 minutes

Description

Pilates is a form of exercise that focuses on strengthening the core, improving flexibility, and enhancing overall body awareness through controlled movements and breathing techniques. Its health benefits include increased core strength, improved posture, enhanced flexibility, and better balance, making it a popular choice for those seeking a holistic approach to fitness.

Pilates is a type of exercise that emphasizes proper alignment, breathing techniques, and precise movements.

It involves a series of controlled movements performed on a mat or with specialized equipment, such as a reformer or Cadillac. Pilates helps strengthen the core muscles, improve flexibility, and promote mind-body awareness.

How it helps

In 4 non-placebo-controlled trials of 218 women with fibromyalgia, practicing Pilates 2x-3x/week for 6-12 weeks improved pain, physical function, muscle strength, and quality of life. Pilates was as effective as endurance training (both land-based and aquatic) in 2 of them [R, R, R, R].

22



Pain Neuroscience Education (PNE)

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Attend scheduled PNE sessions with a qualified healthcare professional. These sessions typically occur once or twice a week and continue for 2 to 6 weeks depending on individual needs. The aim is to better understand pain and its biological underpinnings through structured education.

Description

Pain neuroscience education is an approach used by healthcare professionals to educate patients about the science of pain perception and management. It can help individuals better understand and cope with chronic pain conditions, potentially leading to improved pain management and quality of life.

How it helps

A meta-analysis of 8 studies found low-quality evidence that pain neuroscience education reduces pain intensity in the post-intervention period and fibromyalgia impact in the follow-up period [\[R\]](#).

Adding pain neuroscience education to exercise therapy may further improve functional status, pain-related symptoms, anxiety, and depression [\[R\]](#).

Pain neuroscience education may enhance coping strategies, encourage active self-management, and improve patient outcomes by shifting perceptions of pain.

23



Apply Heat

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Place a warm, not hot, heating pad or a warm wet towel on the affected area for 15-20 minutes at a time. Do this several times a day, ensuring there's at least a 1-hour interval between sessions to avoid skin damage.

TYPICAL STARTING DOSE

15 minutes

Description

Applying heat, such as through heating pads or warm baths, can help relieve muscle tension and soothe pain. It is a common method for managing muscle aches, menstrual cramps, and minor injuries.

People use hot applications to relieve pain, improve blood flow, and more [\[R\]](#), [\[R\]](#).

Types of hot applications include [\[R\]](#), [\[R\]](#):

- Heating pads
- Hot baths
- Saunas
- Hot water bottles

How it helps

In a study of 38 women with fibromyalgia, laser heat therapy over seven tender points (2x/week for 4 weeks) reduced pain and increased upper body flexibility [\[R\]](#).

In a study of 139 people with fibromyalgia, combining standard rehabilitation with mild water-filtered near infrared whole-body hyperthermia (NI-WBH, 2x/week for 3 weeks), which consists of heating the body to 38.1 °C, followed by a 15-minute heat retention period, improved both affective and sensory pain immediately and after up to 6 months [\[R\]](#).

In a study of 70 women with fibromyalgia, adding mud-pack (on the back at 45°C for 2 weeks) and hot pool treatments (at 38°C, daily) to a 6-hour education program reduced pain, fatigue, stiffness, anxiety, and depression immediately after treatment and in the first month [\[R\]](#).

In a study involving 32 people with fibromyalgia, self-administered superficial warmth therapy at 42 °C (for 3 weeks) produced as much pain reduction as transcutaneous electrical nerve stimulation (TENS), another commonly used technique for pain relief [\[R\]](#).

24



Electroacupuncture

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Attend electroacupuncture sessions twice a week for a minimum of five weeks. Each session, conducted by a certified practitioner, involves the application of small electric currents through acupuncture needles inserted at specific points on the body.

Description

Electroacupuncture combines traditional acupuncture with electrical stimulation, potentially offering pain relief, improved circulation, and enhanced muscle function. It's used in complementary medicine to address various health concerns and promote overall well-being.

How it helps

Acupuncture, especially electroacupuncture, could improve pain and stiffness and enhance well-being with effects noticeable up to one month but not at six months. However, acupuncture may not help with fatigue or sleep [\[R, R, R, R\]](#).

The small study sizes, lack of comparative studies, and lack of good control reduce the level of evidence. Hence, studies of a larger scale are needed to confirm these benefits [\[R, R, R, R\]](#).

25



Massage

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Schedule a massage session, ideally with a licensed therapist, for 30-60 minutes, once a week. Choose a type of massage that suits your specific needs, such as Swedish for relaxation or deep tissue for muscle tension.

TYPICAL STARTING DOSE

30 minutes

Description

Massage therapy involves the manipulation of soft tissues to relax muscles, reduce stress, and alleviate pain. It can improve circulation, promote relaxation, and provide relief from various physical and mental health concerns.

If you’ve ever had a professional [massage](#), then you probably know how much good it can do. Massages may help with [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Anxiety
- Pain
- Fatigue

Reflexology is a type of massage. It involves applying pressure to specific parts of your feet or hands. In theory, by pressing on these areas, you can relieve tension from other parts of the body [\[R\]](#).

Acupressure is a similar technique, in which pressure points are used to help with stress and pain [\[R\]](#), [\[R\]](#).

How it helps

Massage therapy (for at least 5 weeks) has shown potential benefits for reducing pain, anxiety, and depression in fibromyalgia patients, although more extensive research is necessary to fully confirm these advantages. Massage, especially myofascial release massage, may also reduce fatigue, stiffness, and overall life quality. The following massage techniques may also offer benefits, but there's less evidence supporting them [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Connective tissue massage
- Manual lymphatic drainage
- Shiatsu

Despite these findings, some experts remain skeptical about recommending massage as a definitive therapy for fibromyalgia [\[R\]](#).

26



Coenzyme Q10 (CoQ10)

IMPACT2 / 5

EVIDENCE1 / 5

How to implement

Take a 100 mg Coenzyme Q10 (CoQ10) supplement once daily with a meal that contains fat for better absorption.

TYPICAL STARTING DOSE

100 mg

Description

Coenzyme Q10 (CoQ10) is a naturally occurring antioxidant that plays a crucial role in cellular energy production. It is often taken as a supplement to support heart health, improve energy levels, and provide antioxidant protection, especially for individuals with certain medical conditions or as they age.

[Coenzyme Q10](#) (CoQ10) is a compound that helps enzymes work better. By doing so, CoQ10 helps improve [\[R, R, R, R\]](#):

- Energy levels
- Antioxidant protection
- Heart health
- Muscle strength
- Blood sugar control

The amount of CoQ10 made by your body decreases as you get older. Luckily, you can also get it from food or supplements. Good sources of CoQ10 include [\[R, R\]](#):

- Organ meats
- Fatty fish
- Whole grains

How it helps

People with fibromyalgia may have lower levels of CoQ10 [\[R, R\]](#).

CoQ10 supplementation (100-300 mg/day for 5-12 weeks) may help reduce fibromyalgia symptoms, such as [\[R, R, R, R, R, R\]](#):

- Pain
- Fatigue
- Morning tiredness
- Depression

CoQ10 may help by [\[R, R, R, R, R, R\]](#):

- Reducing inflammation
- Enhancing mitochondrial function
- Fighting oxidative stress
- Improving cholesterol metabolism
- Increasing serotonin levels

27



Qigong

IMPACT

2 / 5

EVIDENCE

1 / 5

How to implement

Practice Qigong exercises for 30 to 60 minutes daily, ideally in the morning to invigorate your body for the day ahead or in the evening to alleviate stress. Choose a quiet, comfortable space where you can move freely without distractions. Incorporating this routine consistently can lead to better physical and mental well-being over time.

TYPICAL STARTING DOSE

1 hour

Description

Qigong is a mind-body practice originating from traditional Chinese medicine. It involves gentle movements, meditation, and controlled breathing to promote relaxation, reduce stress, and improve physical and mental well-being.

Qigong is a traditional Chinese practice that combines movement, breath control, and meditation. It aims to cultivate and balance the body's vital energy, known as "qi" or "chi."

People often practice qigong for stress reduction, improving posture, increasing flexibility, and promoting overall wellness.

Baduanjin qigong is a type of medical qigong focused on health improvement, unlike religious or martial types.

How it helps

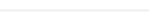
Practicing Qigong (1x/day, 6-8 weeks) may improve core domains for fibromyalgia, such as [\[R\]](#), [\[R\]](#):

- Pain
- Quality of life
- Sleep quality
- Fatigue

The effects may last up to 6 months after treatment [\[R\]](#).

However, the evidence supporting these benefits is weak. Hence more studies are needed to confirm them [\[R\]](#), [\[R\]](#).

28



Biofeedback

IMPACT

1 / 5

EVIDENCE

2 / 5

How to implement

Attend biofeedback sessions once or twice a week for about 8 to 10 weeks. During these sessions, a therapist will guide you through exercises to control different body functions, such as heart rate or muscle tension, using monitors that provide feedback on your physiological state. Practice the techniques learned during sessions at home daily to improve symptoms and manage your condition.

Description

Biofeedback is a type of therapy that teaches people how to control certain body functions, such as heart rate, blood pressure, and muscle tension. It can be used to treat a variety of conditions, including stress, anxiety, and chronic pain.

Biofeedback is a kind of “**brain training**” in which sensors are attached to your body. They detect information like your heart rate, temperature, and breathing rate. By seeing this information, you may be better able to control these functions [[R](#), [R](#)].

Biofeedback is used to help with [[R](#), [R](#)]:

- Gut problems
- Chronic pain
- Migraines
- Insomnia
- Attention

Neurofeedback is a form of biofeedback that measures brain activity in real time [R].

How it helps

Biofeedback may help people with fibromyalgia by improving [R, R, R]:

- Anxiety
- Depression
- Pain

However, not all studies back these benefits [R, R].

Studied biofeedback approaches include [R, R, R, R, R]:

- Electromyography (EMG) biofeedback
- Neurofeedback

Due the heterogeneity of the studies, it's challenging to draw broad conclusions. Hence, more studies are needed to confirm these benefits [R].

29



Melatonin

IMPACT1 / 5

EVIDENCE2 / 5

How to implement

Take 500 mcg of melatonin orally, about 30 minutes before bedtime, to help with sleep. It can be taken daily as needed.

TYPICAL STARTING DOSE

500 mcg

Description

Melatonin is a natural hormone produced by the pineal gland in the brain that helps regulate the sleep-wake cycle. It plays a crucial role in promoting sleep onset and maintaining a consistent sleep pattern, making it a commonly used supplement for managing sleep disorders and jet lag.

[Melatonin](#) is an important sleep hormone. Bright light at night may prevent your body from making enough melatonin [\[R, R, R\]](#).

Your body makes melatonin on its own. However, some people take melatonin supplements to help them sleep. It may help with jet lag in particular [\[R, R, R\]](#).

How it helps

Preliminary research suggests that people with fibromyalgia may have melatonin deficiency [\[R\]](#).

Melatonin (3-5mg at bedtime for 4-6 weeks) may improve [\[R, R, R\]](#):

- Tender point count
- Pain
- Sleep quality

Combining standard therapy with melatonin may offer greater benefits [\[R, R\]](#).

How to implement

TYPICAL STARTING DOSE

20 minutes

Description

Waters for balneotherapy contain a mixture of organic and inorganic compounds, such as hydrogen sulfide (H₂S) [[R](#), [R](#)].

- Joint and back pain
- Fibromyalgia
- Skin conditions (e.g., psoriasis)

How it helps

Bath therapy may help by providing warmth that soothes muscle tension, reduces pain, and alleviates stiffness. The buoyancy of water reduces stress on joints, promoting relaxation and better sleep. Regular sessions can enhance mood, improve circulation, and assist in managing the chronic symptoms associated with fibromyalgia.

How to implement

TYPICAL STARTING DOSE

1 hour

Description

Acupuncture is a part of traditional Chinese medicine. It involves **inserting thin needles at specific points on the body**. People use it to [R, R, R, R, R]:

- Relieve pain
- Improve sleep quality
- Relieve allergies
- Reduce nausea

How it helps

The small study sizes, lack of comparative studies, and lack of good control reduce the level of evidence. Hence, studies of a larger scale are needed to confirm these benefits [R, R, R, R].

32



Transcutaneous Electrical Nerve Stimulation (TENS)

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Apply TENS unit electrode pads around the area in pain; begin with the device set to a low setting and gradually increase intensity to a comfortable level. Use the device for 15-30 minutes per session for pain relief, and it can be used multiple times a day as needed.

TYPICAL STARTING DOSE

30 minutes

Description

TENS is a therapy that uses low-level electrical currents to relieve pain by stimulating the nerves. It's commonly used as a non-invasive method to manage various types of pain, such as musculoskeletal pain or chronic pain conditions.

How it helps

Transcutaneous electrical nerve stimulation (TENS) may help with fibromyalgia by reducing pain, especially when combined with therapeutic exercises. However, TENS may not help with fatigue or depression. Moreover, most studies are small and low-quality [R, R, R, R].

TENS at high or mixed frequencies, high intensities, or over longer durations with 10 or more sessions may be more likely to help with pain reduction [R].

33



Acceptance and Commitment Therapy (ACT)

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Participate in Acceptance and Commitment Therapy (ACT) sessions with a licensed therapist weekly for a minimum of 8 to 12 weeks. During this period, engage in daily ACT exercises at home as recommended by your therapist, such as mindfulness practices and writing exercises that help you connect with your values and accept your thoughts without judgment.

Description

ACT is a type of psychotherapy that focuses on accepting one's thoughts and feelings while committing to actions that align with personal values. It is used to improve mental well-being and treat conditions like anxiety and depression.

How it helps

People with fibromyalgia who avoid pain or catastrophize about pain may experience worse pain after physical activity [R].

In line with this, acceptance and commitment therapy (90-150 minutes/session, 6-12 sessions, in person or through an app) may help with fibromyalgia symptoms. It may reduce [R, R, R]:

- Depression
- Anxiety
- Pain
- Sleep quality

34



Mediterranean Diet

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate a variety of primarily plant-based foods, such as fruits, vegetables, whole grains, nuts, and legumes, into every meal. Choose healthy fats, like olive oil, over saturated fats and consume fish and poultry at least twice a week. Limit red meat to a few times a month and include a moderate amount of dairy products. Opt for water and red wine in moderation as your beverages.

Description

The [Mediterranean diet](#) is based on the traditional cuisine from the Mediterranean regions. It moderates the intake of red meat and dairy, while being rich in fruits and vegetables, whole grains, and healthy fats ([olive oil](#)).

The [Mediterranean diet](#) focuses on traditional cuisine from the Mediterranean regions. It’s rich in [\[R\]](#):

- [Olive oil](#)
- Fruits and vegetables
- Whole grains
- Nuts and seeds
- Fish

This type of diet may **reduce inflammation and protect the brain and heart** [\[R, R, R, R\]](#).

Limited intake of animal products, saturated fat, and refined sugar likely contribute to the health benefits of the Mediterranean diet [\[R\]](#).

How it helps

According to one study, a Mediterranean diet (for 16 weeks) supplemented with high doses of tryptophan and magnesium (60 mg each) may improve mental health in people with fibromyalgia by reducing [\[R\]](#):

- Anxiety
- Mood disturbances
- Dissatisfaction with body image

Women consistently following a Mediterranean diet may have better bone health [\[R\]](#).

35



D-Ribose

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 5 grams of D-Ribose powder mixed with water or juice, three times a day. Start with this dosage for at least 3 weeks to help improve energy levels and heart function, then adjust as needed.

TYPICAL STARTING DOSE

15 g

Description

D-ribose is a sugar molecule that plays a role in energy production in cells. It is sometimes used as a supplement to support muscle recovery, reduce fatigue, and improve exercise performance.

[D-ribose](#) is a sugar involved in the production of energy in the body. It is also the structural basis of DNA and RNA [\[R\]](#).

People use it as a supplement to help with heart disease and [chronic fatigue syndrome](#) [\[R\]](#), [\[R\]](#), [\[R\]](#).

How it helps

A study involving 41 people with chronic fatigue syndrome and/or fibromyalgia found that D-ribose (5g, 3x/day for about 3 weeks) led to improvement in energy and overall well-being in 66% of the participants [\[R\]](#).

Please note: *The long-term safety of D-ribose in daily doses above 36 mg/kg (2.5 g for a 70-kg person) is not unknown. Consult your doctor before supplementing* [\[R\]](#).

36



Magnesium Chloride

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 200-400 mg of magnesium chloride daily, ideally in divided doses with meals to reduce the risk of stomach upset. It can be taken indefinitely as part of a daily supplementation routine to support magnesium levels in the body.

TYPICAL STARTING DOSE

200 mg

Description

Magnesium chloride is a magnesium supplement that can be used to support magnesium levels in the body. It may help alleviate symptoms of magnesium deficiency, such as muscle cramps and fatigue.

How it helps

In a randomized trial on fibromyalgia patients, daily magnesium supplementation (100 mg) reduced mild/moderate stress significantly and diminished pain severity compared to placebo. This suggests potential benefits in managing fibromyalgia symptoms, warranting further investigation [\[R\]](#).

37



Elimination Diet

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Begin by removing foods you suspect might be causing adverse reactions for 2-3 weeks. These often include dairy, gluten, soy, nuts, eggs, corn, and processed sugars. After this period, reintroduce each food group one at a time every 3 days, while noting any symptoms that may reappear. This process helps identify food intolerances or sensitivities.

Description

An elimination diet involves removing specific foods or food groups from the diet to identify and address potential food sensitivities or allergies. It can help alleviate symptoms such as digestive issues, skin problems, and allergic reactions by pinpointing trigger foods.

An elimination diet omits foods that can cause your body to have a reaction. Foods are removed for a period of time and then added back in. This helps figure out what foods are causing symptoms or making them worse [\[R\]](#).

Salicylates are compounds naturally found in many foods and drinks. These include wine, tea, beans, and tomatoes [\[R\]](#), [\[R\]](#).

One form (*salicylic acid*) is found in aspirin. People who are sensitive to salicylates may have a reaction to aspirin and other NSAIDs [\[R\]](#), [\[R\]](#).

How it helps

According to a 8-week pilot trial with 8 women with fibromyalgia, a lifestyle intervention combining a modified elimination diet and phytonutrient-rich food (for 4 weeks) may reduce pain and stiffness. This therapy may help by improving the detoxification of toxic elements like mercury and arsenic [\[R\]](#).

38



Airway Muscle Training

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Perform airway muscle training exercises daily for at least 30 minutes. This can involve using specific devices designed to resist airflow in and out, thereby strengthening the respiratory muscles, or practicing breathing exercises that focus on inhaling and exhaling against resistance. Consistency is key, so aim to integrate this practice into your daily routine for ongoing respiratory health.

TYPICAL STARTING DOSE

30 minutes

Description

Airway muscle training is exercise that builds strength in the throat and tongue muscles. This can involve anything from controlled breathing to singing long notes. People use airway muscle training to improve sleep apnea, respiratory conditions, and exercise performance.

Airway muscle training is exercise that builds strength in the throat and tongue muscles. This can involve anything from controlled breathing to singing long notes. People use airway muscle training to improve [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Sleep apnea
- Respiratory conditions like COPD
- Exercise performance

How it helps

In a non-placebo-controlled trial of 30 women with fibromyalgia, practicing respiratory muscle training for 12 weeks improved respiratory efficiency and health-related quality of life [\[R\]](#).

39



Binaural Beats

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Listen to binaural beats through headphones for 30 minutes to 2 hours daily. Choose frequencies that match your goal, such as relaxation or focus, and ensure a quiet, comfortable environment for the best experience.

TYPICAL STARTING DOSE

30 minutes

Description

Binaural beats are audio recordings that use specific sound frequencies to create a perception of a beating or pulsing sound in the brain. Some people use binaural beats for relaxation, meditation, and potential cognitive benefits.

[Binaural beats](#) are an **auditory illusion** perceived by the brain when two slightly different frequencies of sound are played into each ear (*bi* – two, *aural*- ear). When wearing earphones that are playing slightly different notes in each ear, our brain perceives the volume to pulse (oscillate) at a fixed rate. This is called a ‘beat.’

People use binaural beats to improve cognition, mood, and anxiety [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

How it helps

In a study of 120 fibromyalgia patients, binaural beats improved the symptoms, especially in combination with music [\[R\]](#).

40



SAM-e

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 400-1600 mg of SAM-e as a supplement daily, preferably on an empty stomach to enhance absorption. It is often recommended to start with low dosage and observe how your body responds over a few weeks, adjusting as necessary under the guidance of a healthcare provider.

TYPICAL STARTING DOSE

400 mg

Description

[SAM-e](#) is a chemical that helps maintain liver and brain health. Your body makes SAM-e from the amino acid *methionine*, but it’s also available as a supplement [\[R\]](#).

SAM-e supplementation may help with:

- Joint pain [\[R\]](#)
- Liver disease [\[R\]](#)
- Depression [\[R\]](#)

Please note: SAM-e may not be safe for people with a bipolar disorder. It may also interact with 5-HTP, St. John’s wort, and different medications. Combining it with antidepressants can be dangerous and even life-threatening. Never take SAM-e supplements without consulting your doctor [\[R\]](#), [\[R\]](#), [\[R\]](#).

How it helps

SAM-e is involved in the production of hormones and neurotransmitters that may improve mood and joint health, potentially benefiting those with fibromyalgia.

Orally administering 800 mg of S-adenosylmethionine daily for six weeks showed improvement in fibromyalgia patients, reducing pain, fatigue, stiffness, and improving mood compared to a placebo in a double-blind study [\[R\]](#).

A short-term crossover study with 17 primary fibromyalgia patients found that S-adenosylmethionine (SAMe) reduced trigger points and painful sites (p<0.02) and improved Hamilton and SAD rating scales (p<0.05 and p<0.005) compared to a placebo [\[R\]](#).

Upon completion of the literature search, sixty (60) of the 70 studies found at least one positive effect of the intervention (86%), and 52 studies also found improvement in an illness-specific symptom (74%). Magnesium, l-carnitine, and S-adenosylmethionine are nonpharmacological supplements with the most potential for further research [\[R\]](#).

In a study with 47 primary fibromyalgia patients, S-adenosyl-L-methionine (SAMe) treatment (intramuscularly 200 mg once daily and orally 400 mg twice daily for 6 weeks) reduced tenderness of painful sites, improved general well-being, and lowered scores on various depression and anxiety rating scales without side effects [\[R\]](#).

41



Magnesium Citrate

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 200-400 mg of magnesium citrate daily, preferably in the evening or before bedtime. It can be taken with or without food. If you experience any laxative effect, reduce the dosage. This supplement may be taken continuously, but it's advisable to reassess its necessity with a healthcare provider periodically.

TYPICAL STARTING DOSE

200 mg

Description

Magnesium citrate is a well-absorbed form of magnesium commonly used as a laxative to relieve occasional constipation. It can also contribute to overall magnesium intake and support digestive regularity when used as a dietary supplement.

How it helps

In a study involving 60 premenopausal women with fibromyalgia and 20 healthy matched controls, low magnesium levels were observed in fibromyalgia patients. Treatment with magnesium citrate alone improved tender points and fibromyalgia intensity, while the combination of amitriptyline and magnesium citrate was effective for most parameters, except numbness [R].

42



Connective tissue massage

IMPACT

1 / 5

EVIDENCE

1 / 5

Description

Connective tissue massage focuses on the layers of connective tissues surrounding muscles, bones, and joints. The technique involves firm, flowing strokes to help release tension, reduce pain, and improve flexibility [R].

It's particularly beneficial for those with chronic pain or stiffness, aiming to restore body movement and alleviate discomfort by targeting deeper layers of tissue.

How it helps

A systematic review analyzing data from 145 people found that connective tissue massage was noted for enhancing depression and quality of life. However, the evidence is still limited [R].

43



Magnesium

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take up to 350 mg of magnesium daily as a supplement, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

350 mg

Description

Magnesium is an essential mineral involved in various bodily functions, including muscle contractions, nerve signaling, and bone health. Maintaining adequate magnesium levels through diet or supplements can support overall well-being and reduce the risk of magnesium deficiency-related health issues.

[Magnesium](#) is an essential mineral. Your body needs it for [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Muscle, nerve, and bone function
- Blood sugar and blood pressure control
- DNA and protein production
- Strong immunity

Women need **310-320 mg** of magnesium per day, while men need **400-420 mg** [\[R\]](#).

Foods rich in magnesium include **nuts, seeds, and leafy greens**. Magnesium is also available as a supplement [\[R\]](#).

How it helps

In a study involving 60 premenopausal women with fibromyalgia and 20 healthy matched controls, low magnesium levels were observed in fibromyalgia patients. Treatment with magnesium citrate alone improved tender points and fibromyalgia intensity, while the combination of amitriptyline and magnesium citrate was effective for most parameters, except numbness. Magnesium deficiency may contribute to fibromyalgia symptoms [\[R\]](#).

44



Meditation Awareness Training

IMPACT

1 / 5

EVIDENCE

1 / 5

Description

Meditation awareness training involves practices designed to enhance mindfulness and awareness. It teaches individuals to pay attention to the present moment without judgment, leading to reduced stress, improved focus, and better emotional regulation. Techniques can include breathing exercises, guided imagery, and other methods to cultivate a state of calm and presence [\[R\]](#).

How it helps

A randomized controlled trial involving 148 adults with fibromyalgia found that those engaging in Meditation Awareness Training (MAT, for 8 weeks) experienced lasting improvements in pain, sleep quality, psychological distress, and non-attachment to self. Regular meditation practice was also associated with greater benefits [\[R\]](#).

45



Progressive Muscle Relaxation

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Set aside at least 10-15 minutes daily in a quiet, comfortable spot where you won't be disturbed. Start by tensing the muscles in your feet for 5 seconds, then relax for 30 seconds, and progressively work your way up through the major muscle groups of your body, tensing then relaxing each for 5 and 30 seconds respectively.

TYPICAL STARTING DOSE

10 minutes

Description

Progressive Muscle Relaxation is a relaxation technique involving the systematic tensing and releasing of muscle groups to reduce muscle tension, stress, and anxiety. Regular practice can lead to improved physical and mental relaxation.

Progressive muscle relaxation is a relaxation technique focused on releasing muscle tension. In this technique, you focus on tensing and relaxing different parts of your body, one after the other, to relieve stress [R](#), [R](#)].

It is common to start with the toes and slowly work your way up to the neck and head. Try to focus on a single muscle group at a time (for example, the calf muscles). Tense these muscles for 5-10 seconds, then relax for 20-30 seconds before moving on to the next muscle group [R](#), [R](#)].

How it helps

In a non-placebo-controlled trial of 37 women with fibromyalgia, practicing progressive muscle relaxation 2x/week for 8 weeks improved pain, fatigue, and stress [R](#)].

46



Yoga

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Practice yoga for at least 20 to 30 minutes a day, most days of the week. Choose a style that matches your fitness level and goals, and consider attending a class or using online resources to guide your practice.

TYPICAL STARTING DOSE

30 minutes

Description

Yoga is a mind-body practice that combines physical postures, breathing exercises, and meditation. It enhances flexibility, strength, and mental well-being and is used for stress reduction, relaxation, and overall health improvement.

[Yoga](#) combines breathing, stretching, and relaxation techniques. Practicing yoga may help [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Reduce [stress](#)
- Improve fitness
- Lower blood pressure and heart rate
- Manage pain

How it helps

Following a yoga program (for at least 8 weeks) may reduce pain, fatigue, and mood problems. It may also improve coping strategies such as pain acceptance and catastrophizing. The benefits can persist up to three months after the practice [\[R\]](#), [\[R\]](#), [\[R\]](#).

The program included:

- Gentle poses
- Meditation
- Breathing exercises
- Yoga-based coping instructions
- Group discussions

Those who practiced yoga more often were more likely to benefit more [\[R\]](#).

47



Core-Strengthening Exercises

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate exercises like planks, bridges, abdominal crunches, and leg lifts into your daily routine. Aim to do these exercises for 20-30 minutes, 3 times a week. Each exercise should be performed in sets of 10-15 repetitions.

TYPICAL STARTING DOSE

20 minutes

Description

Core-strengthening exercises target the muscles of the abdomen, lower back, and pelvis, helping improve posture, stability, and reduce the risk of back pain. Regular core workouts support a strong and balanced musculoskeletal system.

The core, or trunk, includes several groups of muscles in your abdomen, back, and pelvis. Keeping these muscles strong helps stabilize your body, twist and bend your back, protect your back from injuries, and enhance your overall fitness [R].

Some exercises that help strengthen the core include [R]:

- Crunches
- Planks
- Bridges
- Supine toe taps
- Bird dogs

The core can also be strengthened by practicing Pilates, kettlebell training, and some types of yoga [R, R, R].

How it helps

In a non-placebo-controlled trial of 40 patients with fibromyalgia, practicing core-strengthening exercises 2x/week for 4 weeks improved the symptoms and balance [R].

48



Saffron

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 20 mg of saffron supplement daily. This can be taken at any time of the day, with or without food.

TYPICAL STARTING DOSE

20 mg

Description

Saffron is a spice derived from the stigma of the saffron crocus flower, and is native to the Mediterranean and Asia. Its main compounds include crocin, picrocrocin, and safranal, which may contribute to its antioxidant properties and potential mood-enhancing effects.

[Saffron](#) is a yellow spice praised for its color, taste, and potential health benefits [\[R\]](#).

Saffron is rich in antioxidants such as *crocin*. Researchers are looking into its potential benefits for [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Gut conditions
- Heart health
- Mental health

How it helps

In a non-placebo-controlled trial of 46 patients with fibromyalgia, supplementation with saffron (15-30 mg/day) for 8 weeks improved the symptoms as effectively as duloxetine [\[R\]](#).

49



Manual Lymphatic Drainage

IMPACT

1 / 5

EVIDENCE

1 / 5

Description

Manual lymphatic drainage is a gentle massage technique that stimulates the lymphatic system to remove waste and toxins from bodily tissues. It involves light, rhythmic strokes to encourage the movement of lymph fluids around the body [\[R\]](#).

It's especially helpful for reducing swelling, detoxification, and boosting the immune system, making it a go-to option for post-surgery recovery or lymphedema management.

How it helps

A systematic review analyzing data from 145 people found that manual lymphatic drainage showed advantages over connective tissue massage in easing stiffness, and depression, and enhancing quality of life [\[R\]](#).

50



5-HTP

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 100 mg of 5-HTP as a supplement daily, ideally with a glass of water. It can be taken at any time of the day but taking it at the same time each day may help establish a routine.

TYPICAL STARTING DOSE

100 mg

Description

5-HTP is a building block for serotonin. 5-HTP and serotonin help make melatonin, a hormone that promotes sleep. People mainly use 5-HTP as a mood-boosting supplement. It may also help reduce appetite, help with chronic pain and fatigue, and improve sleep quality.

[5-HTP](#) is a building block for the “happiness hormone” [serotonin](#). 5-HTP and serotonin help make [melatonin](#), a hormone that promotes sleep [\[R\]](#).

People mainly use 5-HTP as a mood-boosting supplement [\[R, R\]](#). According to early research, it may also:

- Reduce appetite [\[R, R, R\]](#)
- Help with chronic pain and fatigue [\[R, R, R\]](#)
- Improve sleep quality [\[R, R\]](#)

Please note: 5-HTP can interact with SAM-e, St. John’s wort, and different medications. Combining it with antidepressants can be dangerous and even life-threatening. Never take 5-HTP without consulting your doctor [\[R, R, R\]](#).

How it helps

In a placebo-controlled trial of 50 patients with primary fibromyalgia, supplementation with 5-HTP improved all clinical parameters and only showed mild, transient side effects [\[R\]](#).

5-HTP may increase serotonin levels, which can help regulate pain perception and improve mood.

51



Emotional Awareness And Expression Therapy

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Participate in Emotional Awareness and Expression Therapy (EAET) sessions regularly, typically once a week for about 8 to 12 weeks. Sessions can be conducted individually or in a group setting with a trained therapist. The focus will be on understanding and expressing your emotions related to stressors or trauma in a healthy way.

Description

Emotional awareness and expression therapy aims to help individuals recognize and communicate their emotions effectively. This therapeutic approach can enhance emotional intelligence, improve interpersonal relationships, and support mental well-being.

How it helps

In a randomized trial involving 230 patients with fibromyalgia, emotional awareness and expression therapy improved several symptoms, physical functioning, emotional well-being, and life satisfaction, but not pain, better than education. Emotional awareness and expression therapy reduced the symptoms and widespread pain better than CBT in a non-placebo-controlled trial of 154 patients [\[R\]](#), [\[R\]](#).

52



Visualization

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Set aside 10-15 minutes daily in a quiet, comfortable space to close your eyes and visualize a peaceful scene or a desired outcome in detail, incorporating all senses. Practice this regularly for several weeks to potentially reduce stress and improve overall well-being.

TYPICAL STARTING DOSE

10 minutes

Description

Visualization is a mental technique that involves imagining specific scenarios, often used for relaxation, stress reduction, and goal setting. It can enhance focus, reduce anxiety, and improve overall mental well-being.

How it helps

In a non-placebo-controlled trial of 71 patients with fibromyalgia, an online visualization intervention improved depression, positive affect, and self-efficacy at postintervention, and optimism and negative affect at 3-month follow-up [\[R\]](#).

53



Swimming

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate swimming into your routine for at least 30 minutes, 3 times a week. Choose a pace and stroke that keeps your heart rate elevated yet allows you to breathe comfortably. Continue this practice regularly for long-term health benefits.

TYPICAL STARTING DOSE

30 minutes

Description

Swimming is a whole-body workout that engages various muscle groups, promoting strength and endurance. It helps keep the heart and lungs healthy, improves flexibility, and can even help reduce stress. Regular swimming is a great way to maintain a balanced, fit, and healthy lifestyle.

How it helps

In a non-placebo-controlled trial of 75 women with fibromyalgia, swimming 3x/week for 12 weeks reduced pain while improving functional capacity and quality of life [R].

54



Cupping Therapy

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

To practice cupping therapy as part of your lifestyle, schedule sessions with a qualified therapist once or twice a month to address specific concerns or for general wellness. Each session usually lasts between 5 to 15 minutes. Consistent treatment over several months may yield the best results.

TYPICAL STARTING DOSE

15 minutes

Description

Cupping therapy is an alternative therapy that involves placing cups on the skin to create suction. Some believe it may help with pain relief and muscle tension.

How it helps

In a placebo-controlled trial of 141 patients with fibromyalgia, cupping (5 times at twice weekly intervals) reduced pain and improved quality of life compared to usual treatment, but not to sham cupping [R].

55



Chlorella

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 3 to 5 grams of chlorella in tablet or powder form daily, ideally before meals to improve digestion. Continue this supplementation for at least 2 to 3 months to observe benefits.

TYPICAL STARTING DOSE

3 g

Description

[Chlorella](#) is a microalga from freshwater. People consume chlorella in rice, pancakes, or tea. It can also be found as a supplement [\[R\]](#) [\[R\]](#).

Chlorella is **rich in protein** and several micronutrients. It may be useful to [\[R\]](#) [\[R\]](#) [\[R\]](#) [\[R\]](#) [\[R\]](#) [\[R\]](#) [\[R\]](#) [\[R\]](#):

- Reduce blood sugar
- Lower cholesterol
- Reduce blood pressure
- Improve immunity

How it helps

Research conducted on 20 people with fibromyalgia found that chlorella tablets (equivalent to 10 g/day of extract for 2 months) and a liquid extract (100 mL/day for 2 months) lowered tender points and anxiety while improving sleep quality [\[R\]](#).

56



Pet Therapy

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Engage with a pet, such as a dog or cat, for at least 15-30 minutes a day. This can include activities like playing, petting, or simply sitting together. It's beneficial to do this regularly, aiming for daily interactions, to maximize the emotional and physical health benefits.

TYPICAL STARTING DOSE

30 minutes

Description

Pet therapy, also known as animal-assisted therapy, involves the interaction between trained animals and individuals to provide emotional and physical benefits. Spending time with therapy animals, typically dogs or cats, can reduce stress, improve mood, and enhance overall well-being by promoting relaxation and social interaction, making it particularly beneficial for people facing mental health challenges or chronic conditions.

Animal-assisted therapy, also known as **pet therapy**, involves human-animal interaction to foster physical and emotional healing and provide social support. This therapy may use different animals, such as [\[R\]](#), [\[R\]](#):

- Dogs
- Horses
- Dolphins

Animal-assisted therapy may involve touching, playing, grooming, and talking with the animal [\[R\]](#).

How it helps

In a non-placebo-controlled trial of 154 patients with fibromyalgia, receiving 12-min sessions of dog-assisted therapy improved pain, mood, and other measures of distress [\[R\]](#).

Similarly, a 20-min session with a dog decreased heart rate while increasing HRV, well-being, salivary oxytocin, and positive emotional state in a non-placebo-controlled trial of 221 participants with fibromyalgia [\[R\]](#).

57

Stability Training

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Integrate stability exercises into your workout routine 2-3 times per week. These exercises include activities such as using a stability ball, performing balance exercises on a balance board, or doing body-weight exercises that focus on balance and core strength, such as planks and single-leg stands. Spend approximately 20-30 minutes per session focusing on these exercises.

TYPICAL STARTING DOSE
30 minutes

Description

Stability training is a form of exercise that focuses on enhancing core strength and balance through targeted movements and exercises, often incorporating equipment like stability balls, balance boards, or resistance bands. It helps improve overall stability and posture while reducing the risk of falls and injury.

How it helps

A study comparing spinal stabilization exercises with and without kinesio taping for fibromyalgia patients found that the combined approach showed better pain reduction, fatigue improvement, and enhanced quality of life [\[R\]](#).

58

Whole-Body Cryotherapy

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Participate in whole-body cryotherapy sessions by entering a cryotherapy chamber for 2-3 minutes, where temperatures drop to between -100°C to -140°C (-148°F to -220°F). These sessions should be performed 2-3 times a week for optimal benefits.

TYPICAL STARTING DOSE
2 minutes

Description

Whole-body cryotherapy involves brief exposure to extreme cold temperatures in a controlled chamber. It is used to reduce inflammation, alleviate muscle soreness, and promote recovery in athletes and individuals seeking pain relief.

How it helps

In a study involving 24 fibromyalgia patients, half underwent 10 sessions of whole-body cryotherapy alongside standard care, while the other half received usual care only. The cryotherapy group experienced significantly improved quality of life, with lasting effects for a month post-treatment [\[R\]](#).

In a study of 53 participants comparing serial whole-body cryotherapy effects in fibromyalgia patients and healthy controls, significant pain reduction and disease activity improvement were observed after 3 and 6 sessions, but no lasting benefit was found after 3 months. Patients reported satisfaction and altered cytokine levels [\[R\]](#).

Please note: Rapid cold exposure can cause life-threatening changes to your breathing and heart rate. This is called the cold-shock response. Be cautious of any form of sudden temperature change to your environment, especially if you have heart disease or other health conditions [\[R\]](#).

59



Shiatsu

IMPACT

1 / 5

EVIDENCE

1 / 5

Description

Shiatsu, meaning "finger pressure" in Japanese, is a massage technique that uses hands, thumbs, and elbows to apply pressure to various parts of the body. This approach aims to improve energy flow, ease stress, and promote relaxation. It's performed on a mat on the floor with the client fully clothed, making it distinct and accessible for those seeking relief without the need for oils or lotions [R].

How it helps

A systematic review analyzing data from 145 people found that shiatsu massage was reported to benefit pain, fatigue, sleep, and quality of life. However, the evidence is still limited [R].

60



Self-Hypnosis

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Practice self-hypnosis for 20-30 minutes daily. Find a quiet, comfortable place where you won't be disturbed. Close your eyes, take deep breaths, and focus on positive affirmations or imagery that addresses your specific needs, such as reducing stress or pain management.

TYPICAL STARTING DOSE

20 minutes

Description

Self-hypnosis involves using relaxation techniques and focused attention to enter a state of heightened suggestibility, often for the purpose of self-improvement or managing certain conditions like stress or pain.

How it helps

A study of 59 women with fibromyalgia found that 5 sessions of hypnosis over 2 months, with self-hypnosis practice, led to better improvement in patient perception, sleep, and coping strategies compared to a control group [R].

61



Autogenic Training

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Practice autogenic training for 10-15 minutes daily, ideally in a quiet, comfortable space where you won't be disturbed. Sit or lie down in a comfortable position, close your eyes, and focus on calming your mind and body through self-suggested affirmations. Repeat this routine daily for at least 2-3 months to observe beneficial effects on stress reduction and relaxation.

TYPICAL STARTING DOSE

10 minutes

Description

Autogenic training is a relaxation technique that involves self-suggestion and progressive muscle relaxation to promote relaxation, reduce stress, and alleviate symptoms of anxiety and tension.

Autogenic training is a relaxation technique that a person may carry out on their own [\[R\]](#), [\[R\]](#).

Autogenic training uses 6 exercises that take the mind’s attention to bodily sensations such as warmth and heaviness. The exercises involve guided imagery and verbal cues (e.g. "My arm is very heavy") to [\[R\]](#), [\[R\]](#):

- Relax the body
- Quiet and calm the mind
- Increase energy

How it helps

In a non-placebo-controlled trial of 53 fibromyalgia patients, autogenic training mainly improved nighttime sleep and morning rigidity but required numerous therapeutic sessions. However, Erickson's techniques had advantages such as better patient retention and quicker results, showing greater overall improvement [\[R\]](#).

62



PEMF

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Use a PEMF (Pulsed Electromagnetic Field) device for 30 minutes to 2 hours daily. Position the device as directed by the manufacturer, typically over the area of concern or discomfort. It can be part of your daily routine, such as during rest or activity, without a specific end date unless advised by a healthcare professional.

TYPICAL STARTING DOSE
30 minutes

Description

PEMF, or Pulsed Electromagnetic Field therapy, involves the use of electromagnetic fields to stimulate cellular activity within the body. This therapy is believed to help improve circulation, reduce pain and inflammation, and enhance cellular function.

How it helps

In a placebo-controlled trial of 32 patients with chronic pain, applying PEMF during 40 min 2x/day for 7 days reduced pain, especially in those with fibromyalgia [R].

Similarly, PEMF therapy for 8 weeks improved function, pain, fatigue, and global status in 2 placebo-controlled trials of 616 women with fibromyalgia. However, PEMF (12 weeks) was ineffective at improving pain or stiffness in a placebo-controlled trial of 108 women with fibromyalgia [R, R, R].

63



Aromatherapy

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Select essential oils like lavender, peppermint, or eucalyptus. Use a diffuser to disperse the scent into your room for 30-60 minutes at a time, up to 3 times a day. Alternatively, apply a few drops diluted in a carrier oil directly to your skin, such as on your temples or wrists, twice a day.

TYPICAL STARTING DOSE

30 minutes

Description

Aromatherapy is a holistic practice that uses the scents and aromas of essential oils to promote physical, mental, and emotional well-being. It is often used for relaxation, stress reduction, and to address various health concerns through inhalation or topical application of essential oils.

Aromatherapy uses concentrated plant extracts known as **essential oils**. They can be inhaled using a diffuser (a device that releases small amounts of oil into the air) or applied to the skin using a roller [\[R\]](#).

[Lavender](#) is a decorative flower and a calming herb and its essential oil is commonly used in aromatherapy. People use it to [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Reduce anxiety [\[R\]](#)
- Improve sleep quality [\[R\]](#), [\[R\]](#)
- Relieve pain [\[R\]](#), [\[R\]](#)

Essential oils can be harmful if not used properly. Tips for using them safely include [\[R\]](#), [\[R\]](#):

- Diluting them properly using a plant-based carrier oil (such as olive oil or almond oil)
- Using diffusers in a well-ventilated area for a maximum of 1 hour
- If using on the skin, testing a small area first and waiting a day before using more
- Keeping essential oils away from candles or other heat sources

How it helps

In a survey study, 90% of people with fibromyalgia reported aromatherapy as one of the most effective alternative therapies they use for the management of their symptoms. However, no clinical study has been performed to reveal potential improvement in symptoms [\[R\]](#).

64



Niacin Supplements

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a 20 mg niacin supplement daily, preferably with a meal to aid in absorption and minimize potential stomach upset.

TYPICAL STARTING DOSE

20 mg

Description

Niacin is an essential B vitamin that plays a vital role in metabolism, supporting heart health, maintaining healthy cholesterol levels, and promoting overall cellular function when included in a balanced diet or as a supplement.

[Niacin](#) (vitamin B3) is found in many foods. It supports your nervous system, skin, gut, and more [\[R\]](#).

Adults should get **16 mg** of niacin a day, and most people get enough from their diets [\[R\]](#).

Experts recommend getting niacin from food rather than supplements [\[R\]](#), [\[R\]](#).

How it helps

A study of 53 women with fibromyalgia compared to 35 healthy females found that those with fibromyalgia had lower levels of niacin. More tender points indicated lower niacin levels [\[R\]](#).

Please note: *Niacin has been linked to liver damage and strokes. It may also cause flushing, bruises, and bleeding. Talk to your doctor before taking niacin* [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

65



Histidine

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take 500-1000 mg of histidine supplement per day, ideally with a meal. It is best to start with a lower dose, such as 500 mg, to assess tolerance and then adjust as needed up to 1000 mg. Consistent daily intake for at least 4 to 8 weeks may be necessary to notice benefits.

TYPICAL STARTING DOSE

500 mg

Description

Histidine is an essential amino acid that plays a role in protein synthesis and the formation of histamine. It is important for overall health and is found in various protein-rich foods.

A histidine supplement of up to 14 mg/kg/d can be taken to meet the needs not achieved through diet.

You can also increase your dietary histidine intake. Histidine is found in protein-rich foods such as meat, chicken, fish, beans, oats, and wheat. It's especially high in the Japanese food ingredient dashi or dried bonito, often used for soup stock [R].

How it helps

People with fibromyalgia may have higher levels of histidine compared to healthy people. However, earlier studies found increased histidine levels in people with fibromyalgia [R, R].

Next Steps

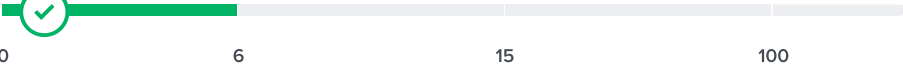
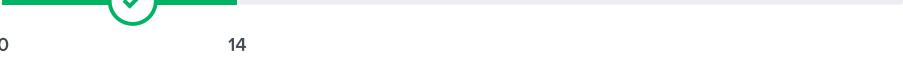
Remember, your genes only tell one important part of your health story!

Now that you've seen your DNA-based results for this health topic, let's take a look at other contributing factors.

Your lab results

Your lab results are impacted by the combined effect of your genes, environment and lifestyle.

Lab tests will give you the best picture of your current health status, while your genes provide insight into your health predispositions and which recommendations are best for you.

	T4 Free (FT4)	1.26 ng/dL		9 Nov 2025
	TSH	2.76 mIU/mL		9 Nov 2025
	ESR	1 mm/hr		9 Nov 2025
	Zinc	17.12 umol/L		9 Nov 2025
	Ferritin	102.2 ng/mL		9 Nov 2025
	Rheumatoid Factor	7.7 IU/mL		9 Nov 2025
	Glucose, Fasting	97 mg/dL		9 Nov 2025
	Magnesium	2.17 mg/dL		9 Nov 2025
	Vitamin D, 25-Hydroxy, Total	58.59 ng/mL		9 Nov 2025

	RBC	6.05 x10^6/mm3		9 Nov 2025
	T3, Free (FT3)	3.34 pg/mL		9 Nov 2025
	Creatine Kinase	173 IU/L		9 Nov 2025
	Insulin, Fasting	9.08 uU/mL		9 Nov 2025
	HbA1c (%)	4 %		29 Dec 2025
	Iron	228 mcg/dL		9 Nov 2025