SelfDecode™

Headache

DNA Health Report

REPORT CATEGORY

HEADACHES & MIGRAINES

Sample Client

Report date: 15 January 2026

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Table of Contents

Personal information

NAME

Sample Client

SEX AT BIRTH

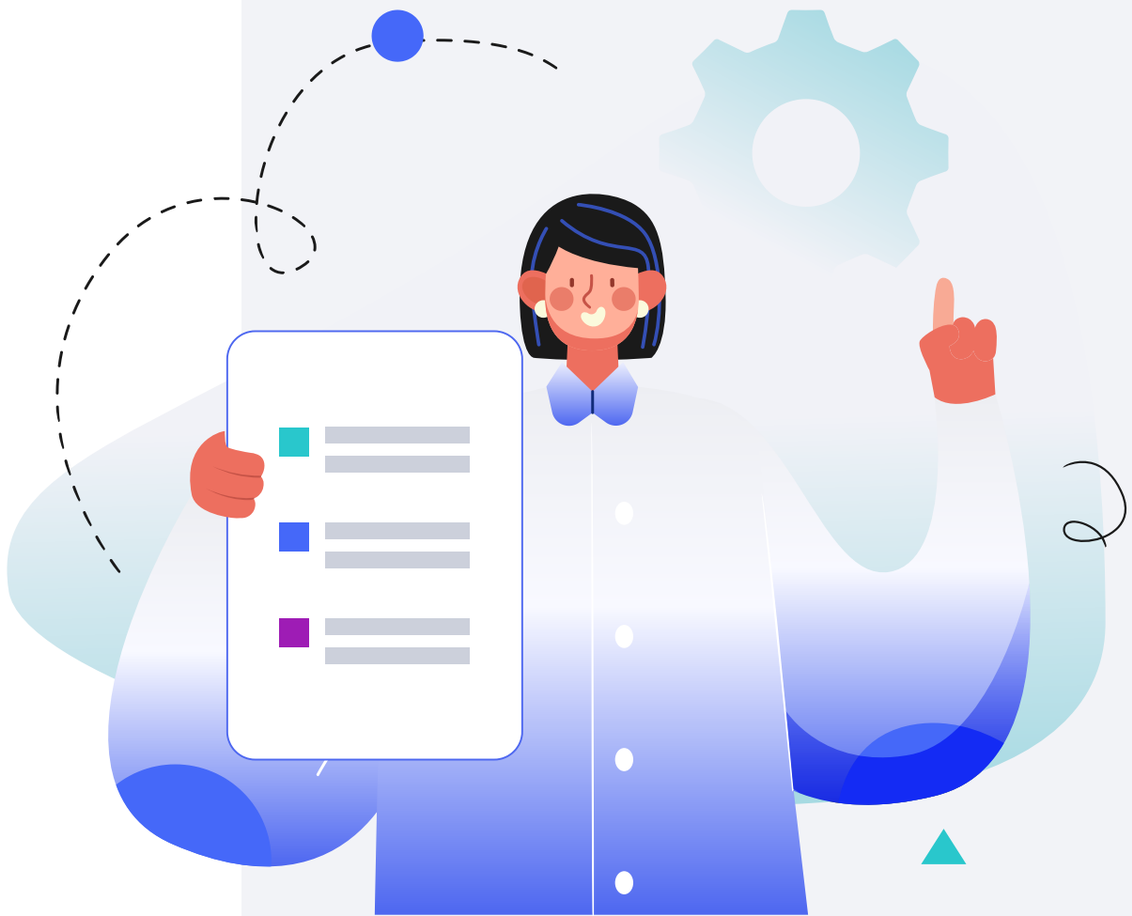
Male

HEIGHT

5ft 5" 165cm

WEIGHT

137lb 62kg

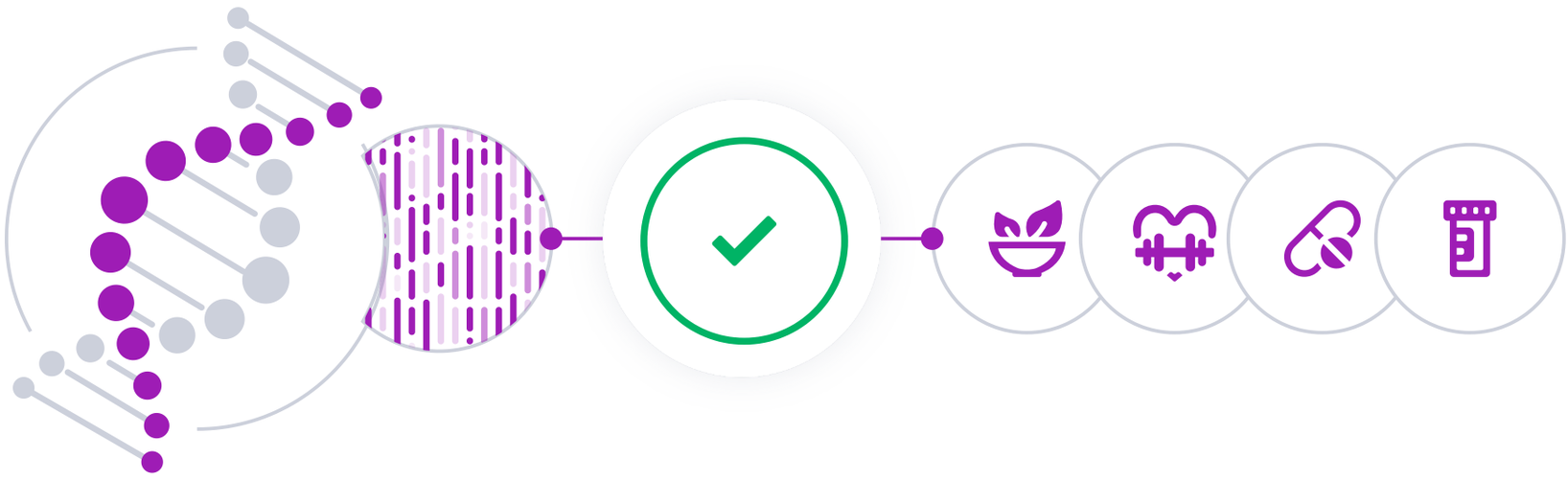


DISCLAIMER

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.

How this works

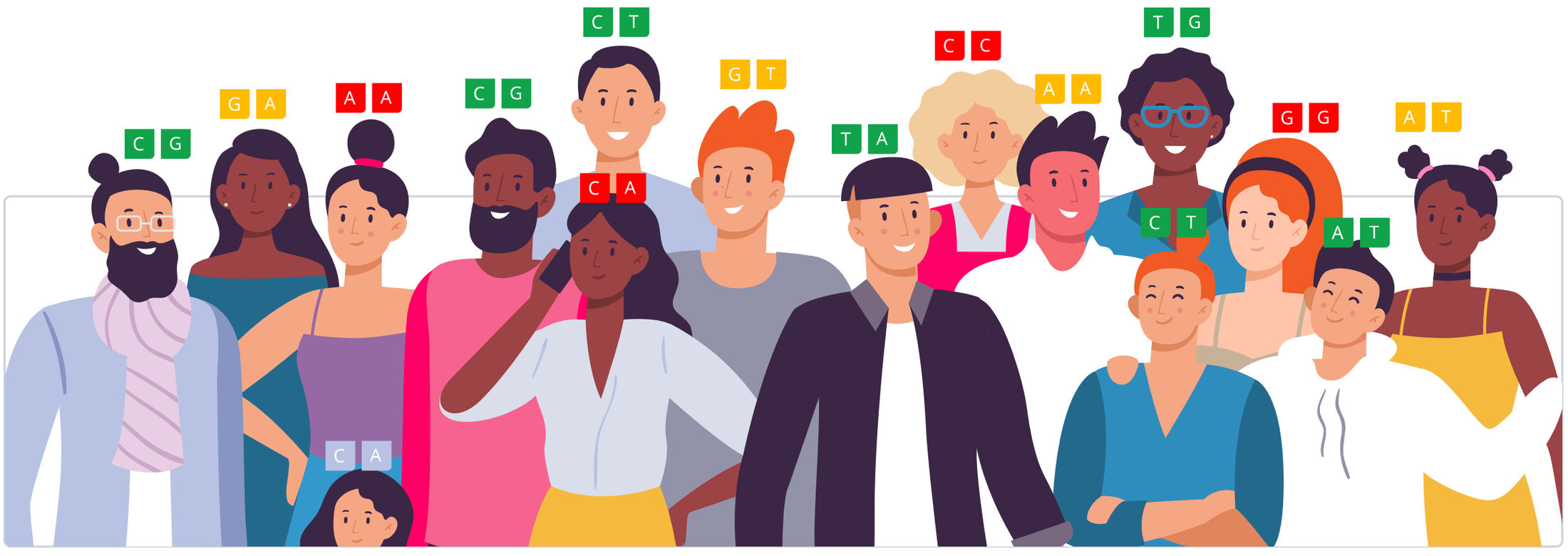
Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.



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.

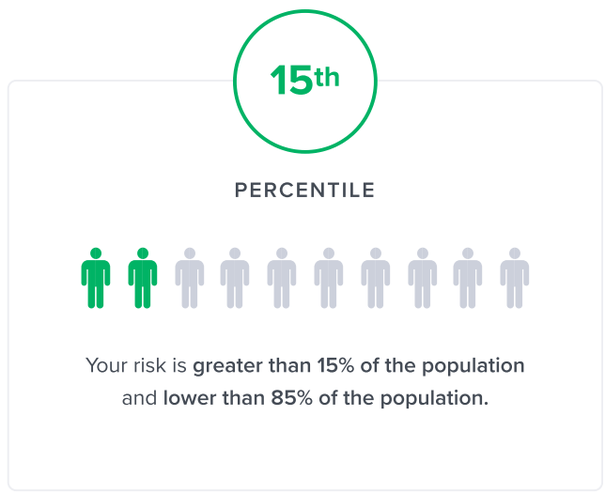
Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



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.

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

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



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, afew 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

It's a beautiful day outside. You've got productive plans. You're off to a great start. But then you feel it, that oh-so-familiar dull ache beginning to cloud your thoughts. Another headache!

Headaches can be extremely frustrating to suffer and pretty much everyone is familiar with them. Around 75% of American individuals experience head pain at least once a year [R]. But can you tell the difference between a migraine and a headache?

Well, technically, a migraine is a form of headache. The most common distinction between other forms of headache and a migraine is the additional symptoms which normally accompany migraine head pain, such as nausea and sensitivity to light [R].

(On a side note, if you suspect you may be suffering from migraines rather than other types of headache, check out our Migraine Report!)

We've touched on the differences between other types of headache and migraine, but the major similarities between them are their genetic elements.

The clues contained in your DNA may be able to indicate potential headache triggers. This knowledge can be used to help you avoid these triggers.

For example, variants of genes such as *CDH13* or *VGLL2* may increase the risk of developing a headache as a result of poor quality sleep. Therefore, you may benefit from taking particular care to optimize your sleep routine [R].

Your genes may also interact with other triggers such as stress, pain, or your diet to influence the overall risk of head pain.

Read on to find out more about:

- **How your genetics play a role in headaches**
- **Your genetic risk score based on over 458,000 genetic variants**
- **Personalized recommendations based on your genetics**

About Headaches

Key Takeaways:

- About **45%** of the differences in people's chances of developing headaches may be due to genetics.
- Modifiable factors like diet and stress may be equally important, so make sure to address them.
- About **75%** of Americans will experience a headache this year. A good genetic result doesn't mean you should ignore potential risks.
- Click the **next steps** tab for relevant labs and lifestyle factors.

Nearly everyone suffers the occasional headache. In fact, around 95% of all people get them at some point in their life [R].

Some headaches are not caused by an underlying condition. These are called *primary* headaches. The main types are [R]:

- Tension headache
- Migraine
- Cluster headache

Tension headaches are the most common. People with these headaches often feel like something tight is pressing around their head [R, R].

Migraines are the second-most common type. These aren't just headaches, and pain isn't the only symptom. People with migraines often also experience symptoms like nausea and sensitivity to light or sound [R, R].

Only about 0.1% of people get cluster headaches. They're extremely painful and short, typically lasting between 15 minutes and 3 hours. They often cause [R, R]:

- Pain on one side of the head
- Tear production
- Runny nose
- Red eyes
- Drooping eyelids
- Sweating

Headaches caused by an underlying condition are called *secondary* headaches. They can be caused by [R]:

- Infection

TYPICAL LIKELIHOOD

Typical likelihood of headaches based on 439,774 genetic variants we looked at

51st

PERCENTILE

Your risk is **greater than 51% of the population** and **lower than 49% of the population.**

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
TRPM8	rs10166942	TT
TRIM32	rs6478241	AA
HTR2A	rs6313	GA
MTHFR	rs1801133	AA
AOC1	rs2052129	GG
IRAG1	rs4910165	GC
BDNF	rs6265	TC
NOS3	rs2070744	TC
HNRNPA2B1	rs76473094	CC
TGFBR3	rs10493859	CA
CHSY3	rs17635642	CC
DHX36	rs34097149	TT
PLEKHA1	rs78438709	AA
TRPM8	rs2362290	GG
BTN3A2	rs2072806	CC
UFL1	rs9486715	AC
GPN3	rs7300001	GA
MRPS21	rs12740679	CG
MAGI1	rs1495452	AA
PHACTR1	rs9349379	GG
STAT6	rs11172113	CC
NAXE	rs2274316	AA
PRDM16	rs2651899	TT

- High blood pressure
- Nerve problems
- Head injury
- Medication overuse
- Tumors
- Stroke

Fortunately, **most headaches are mild and can be treated at home with common painkillers**. However, some may have underlying causes that require special treatment [R, R].

Around 45% of the differences in people's chances of developing headaches may be attributed to genetics. Genes involved in headaches may influence [R, R]:

- Clearance of waste from the brain (*LRP1*)
- Stress hormones (*CRHR1*)
- Brain cell function (*STAT6*)

This report focuses on headaches other than migraines. For personalized genetics-based information on migraines, check out our Migraines Report.

GENE	SNP	GENOTYPE
/	rs138996723	GG
HHAT	rs12141729	CC
KTN1	rs141874014	AA
/	rs12035827	AA
DDX10	rs192588356	AA
STK38L	rs367589977	GG
CUX1	rs183121879	CC
FGF23	rs7308018	GG
STAT6	rs11172113	CC
CASQ2	rs12134493	CC
CRHR1	rs77804065	CC
GJA1	rs9490318	CC
PHACTR1	rs9349379	GG
NUFIP2	rs8614	CC
TRIM32	rs17220352	AA

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
1	Sleep for 7+ Hours	
2	Relaxation Techniques	30 minutes
3	Good Posture	
4	Physical Therapy	30 minutes
5	Manual Joint Mobilization	30 minutes
6	Cognitive-Behavioral Therapy (CBT)	
7	Biofeedback	
8	Massage	30 minutes
9	Maintain a Regular Meal Schedule	
10	Nerve Stimulation	30 minutes
11	Acupuncture	1 hour
12	Psychotherapy	1 hour
13	Mindfulness Meditation	30 minutes
14	Chiropractic Adjustment	30 minutes
15	Avoid Sensory Triggers	
16	Limit Coffee Intake	
17	Avoid Food Triggers	
18	Avoid Monosodium Glutamate (MSG)	
19	Oxygen Therapy	15 hours
20	Exercise At Least One Hour a Day	1 hour
21	Aerobic Exercise (Cardio)	1 hour
22	Gluten-Free Diet	
23	Reduce Mobile Phone Use	2 hours
24	Mindfulness	30 minutes
25	Hot and Cold Applications	15 minutes
26	Melatonin	500 mcg
27	5-HTP	100 mg
28	Meditation	30 minutes
29	Autogenic Training	10 minutes
30	Avoid Loud Noises	
31	Low-Histamine Diet	
32	Reduce EMF Exposure	

33	Alpha-Lipoic Acid	100 mg
34	Reflexology	30 minutes
35	Self-Hypnosis	20 minutes
36	Topical Peppermint Oil	
37	Progressive Muscle Relaxation	10 minutes
38	Acupressure	1 minute
39	Apply Heat	15 minutes
40	Lavender Oil Aromatherapy	2 drops
41	Magnesium	350 mg
42	Avoid Excess Sunlight Exposure	
43	Beta-Glucans	
44	Myrrh	400 mg
45	Guided Imagery	30 minutes
46	Cold Applications	15 minutes
47	Myofascial Release	5 minutes
48	Yoga	30 minutes
49	Transcendental Meditation	20 minutes
50	Valerian	500 mg
51	Creatine	2 g
52	Aromatherapy	30 minutes
53	EFT Tapping	20 minutes
54	Keto Diet	

1

Sleep for 7+ Hours

IMPACT 4 / 5

EVIDENCE 4 / 5

How to implement

Ensure you allocate enough time in your schedule to achieve a minimum of 7 hours of sleep each night. This might involve going to bed earlier or adjusting your evening routine to promote relaxation and make it easier to fall asleep.

Description

Optimizing sleep involves adopting healthy sleep habits and creating a sleep-conducive environment to ensure restorative and sufficient sleep duration. It supports cognitive function, mood stability, and overall physical health. Most experts recommend getting **at least 7 hours of good-quality sleep each night**.

Sleep supports your body and mind [R, R]. More precisely, sleep helps:

- Support brain health [R, R]
- Maintain a healthy weight and appetite [R, R, R]
- Regulate blood pressure [R, R]
- Balance blood sugar [R, R]

Ways to sleep better include [R]:

- Reducing your bright light exposure (screen time) in the evenings
- Sticking to a regular sleep schedule
- Avoiding hunger or large meals before bed
- Avoiding nicotine, caffeine, and alcohol before bed
- Maintaining a sleep area that's cool, dark, and quiet

How it helps

Experts agree that poor sleep may contribute to headaches [R, R, R, R, R].

Poor sleep quality or getting too much sleep may also make headaches more intense [R].

Interventions like cognitive-behavioral therapy (CBT) for sleep may help. They may improve sleep quality and reduce headaches [R].

A good night's sleep is essential for brain health. In fact, sleep may help calm parts of the brain responsible for headaches [R, R].

2

Relaxation Techniques

IMPACT 4 / 5

EVIDENCE 4 / 5

How to implement

Incorporate relaxation techniques such as deep breathing exercises, meditation, or yoga into your daily routine. Spend at least 15-30 minutes each day practicing one of these techniques, preferably in a quiet, comfortable space without interruptions.

TYPICAL STARTING DOSE

30 minutes

Description

Relaxation techniques encompass various methods like deep breathing, yoga, meditation, and progressive muscle relaxation, aimed at reducing stress and promoting mental and physical relaxation. Practicing these techniques regularly can help manage stress, improve mental clarity, and enhance overall emotional well-being.

We all get stressed from time to time.

Stress can help you deal with a challenge or avoid danger. However, **it's not healthy to be stressed for a long time** [R, R].

Relaxation techniques such as yoga and meditation can relieve stress in different ways. Most of them focus on breathing and help you get rid of negative thoughts and emotions [R].

People use relaxation techniques to improve conditions like [R, R, R]:

- Anxiety
- Depression
- Chronic pain

Progressive muscle relaxation is another relaxation technique. In this technique, you focus on tensing and relaxing different parts of your body. It is common to start with the toes and slowly work your way up to the neck and head [R, R].

Autogenic training is a relaxation technique that a person may carry out on their own. It uses exercises that take the mind's attention to bodily sensations such as warmth and heaviness [R, R].

How it helps

Stress is a common trigger for tension headaches. Experts agree that relaxation techniques may help prevent them. They may also help make headaches less severe [R, R, R, R, R, R, R].

Relaxation techniques that may help with headaches include:

- Yoga [R]
- Mindfulness meditation [R]
- Guided imagery (focusing your imagination on things that calm you) [R, R]
- Biofeedback [R, R, R, R, R, R, R, R]

Stress may trigger headaches by making you more sensitive to pain [R].

3

Good Posture

IMPACT 4 / 5

EVIDENCE 3 / 5

How to implement

Ensure your back is straight, shoulders pulled back but relaxed, and your head is aligned above your shoulders when sitting or standing. When sitting, keep your feet flat on the ground, and use a chair that supports your lower back. Do this continuously throughout the day, reminding yourself to adjust your posture whenever you notice it lapsing.

Description

Maintaining good posture helps prevent musculoskeletal problems, reduces the risk of back and neck pain, and supports overall spinal health. Proper posture can also enhance self-confidence and improve breathing and digestion.

Good posture may help lessen strain on your body. It involves keeping your head, shoulders, and hips aligned [R].

Forward head posture is a type of poor posture in which the head is pushed forward or tilted down toward the chest. This posture is common when using computers or smartphones [R].

Poor posture may lead to [R, R]:

- Muscle pain
- Headaches
- Breathing problems

How it helps

Postures that stress the neck and upper back, like forward head posture, are linked to headaches [R, R, R, R, R].

Maintaining good posture likely helps by reducing muscle tension. It may also prevent pain from occurring [R, R].

4

Physical Therapy

IMPACT 3 / 5

EVIDENCE 4 / 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

Physical therapy may help with headaches. It may make tension headaches shorter, milder, and less frequent [R, R, R, R, R].

Experts agree that massage, as part of physical therapy, may help with headaches [R, R, R].

Physical therapy may help by relieving tension in areas of the head and neck that are related to headache [R, R, R].

5

Manual Joint Mobilization

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

Schedule a session with a qualified physical therapist who specializes in manual joint mobilization techniques. Initially, aim for 1-2 sessions per week for a duration of 4-6 weeks. During these sessions, the therapist will apply specific hands-on techniques to move your joints through their natural range of motion, aiming to improve flexibility and decrease pain.

TYPICAL STARTING DOSE

30 minutes

Description

Manual joint mobilization is a hands-on physical therapy technique that can help improve joint function, reduce pain, and enhance mobility. It is often used by physical therapists and chiropractors to address musculoskeletal issues.

How it helps

Three meta-analyses (the largest one with 14 trials) found that manual joint mobilization may improve headache frequency and intensity, medication consumption, and quality of life in people with tension-type headaches. Manual therapies had moderate effects in the short term but comparable effects to medication in the long term. However, the authors often warned about the low quality and high heterogeneity of the included studies [R, R, R].

Manual joint mobilization may help by reducing tension and improving blood flow.

6

Cognitive-Behavioral Therapy (CBT)

IMPACT 3 / 5

EVIDENCE 3 / 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

A meta-analysis of 13 trials found that psychological therapy may improve stress symptoms in adults with tension-type headaches [R].

In a non-placebo-controlled trial of 87 headache patients, cognitive-behavioral therapy reduced headache intensity, frequency, and catastrophizing while improving coping strategies [R].

Mindfulness-based cognitive therapy improved pain intensity, interference, and catastrophizing, activity engagement, and self-efficacy in a non-placebo-controlled trial of 19 headache patients. The benefits were maintained for 6 months [R].

7

Biofeedback

IMPACT 3 / 5

EVIDENCE 3 / 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

Two meta-analyses (the largest one with 94 studies) concluded that biofeedback has medium-to-large effects lasting for ~15 months on chronic headaches (both tension-type and migraines). The largest effects were on headache frequency, followed by muscle tension, self-efficacy, anxiety, depression, and medication use. Biofeedback was more effective than relaxation techniques and headache monitoring and its combination with relaxation techniques was more effective than either intervention alone. Biofeedback was especially effective in children and adolescents [R, R].

The effects are medium to strong according to a non-placebo-controlled trial of 70 patients with headaches [R].

In a non-placebo-controlled trial of 62 people with tension-type headaches due to forward head posture, biofeedback was more effective than physical therapy and stretching at improving posture, disability, attention, and stress [R].

A system combining biofeedback and virtual reality improved pain, daily functioning, and quality of life in an uncontrolled trial of 9 children with chronic headache [R].

However, biofeedback provided no additional benefits in terms of headache frequency and severity to relaxation therapy in a non-placebo-controlled trial of 64 people with headaches [R].

Biofeedback may reduce headaches by helping control physiological variables such as heart rate and brain activity in response to painful stimuli. It also promotes relaxation, especially if combined with relaxation techniques [R].

8

Massage

IMPACT 3 / 5

EVIDENCE 3 / 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

Two meta-analyses (the largest one with 26 trials) found physical therapy (including massage) effective at reducing the intensity, frequency, and duration of headaches. The effects were more consistent and clinically relevant in the cases of tension-type headaches and migraines than in cervicogenic headaches. However, the authors warned about the poor methodological quality of the included studies [R, R].

Physical therapy applied on the suboccipital area (suboccipital soft-tissue inhibition technique combined with occiput-atlas-axis global manipulation) is most effective in people with tension-type headaches according to a meta-analysis of 6 trials and 505 participants [R].

Physical therapy is also effective in children with tension-type headaches according to a meta-analysis of 17 trials and 1,815 participants [R].

A massage may relieve tension in your neck, shoulders, and head, which are common areas of headache pain. Regular sessions may also help by alleviating stress and improving sleep quality.

9

Maintain a Regular Meal Schedule

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

Eat your meals at the same times each day, for instance, breakfast at 7 AM, lunch at 12 PM, and dinner at 6 PM. Stick to this schedule every day, including weekends, to help regulate your body's internal clock and improve digestion.

Description

Maintaining a regular meal schedule helps regulate blood sugar levels, supports digestion, and promotes a healthy metabolism. Consistency in meal timing can contribute to overall energy balance and long-term weight management.

Blood sugar (glucose) is the body’s main source of energy. It increases after a meal. Skipping meals may reduce this energy supply and lead to [R, R]:

- Poor cognitive performance
- Headaches

A regular meal schedule means eating the same number of meals at about the same times every day. Doing so may help [R, R]:

- Balance the internal clock
- Maintain a healthy body weight
- Support healthy cholesterol levels
- Prevent migraines

How it helps

Skipping meals and fasting may trigger headaches. This is likely the result of low blood sugar [R, R, R, R, R].

In line with this, **experts say that a regular meal schedule may help prevent tension headaches** [R, R].

PERSONALIZED TO YOUR GENES

People with your *CSK* gene variant are more likely to skip meals [R]. **Make sure to maintain a regular meal schedule to prevent headaches.**

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
CSK	**rs35107470**	GA	

10

Nerve Stimulation

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

Nerve stimulation can be implemented by daily sessions of 15-30 minutes using a device specifically designed for this purpose. These devices often use electrical currents to stimulate nerves through the skin, which can be adjusted in intensity according to comfort. It's important to consult a healthcare provider for guidance on the specific type of nerve stimulation that may be most beneficial for your condition.

TYPICAL STARTING DOSE

30 minutes

Description

Nerve stimulation techniques involve the use of electrical impulses, like transcutaneous electrical nerve stimulation (TENS) or other methods to activate nerves, potentially providing relief from chronic pain, improving muscle function, and aiding in physical therapy.

Health professionals can stimulate your nerves using different strategies [R].

Many strategies use magnetic fields or electric currents. Examples include [R, R, R]:

- Transcutaneous electrical nerve stimulation (TENS)
- Transcranial direct current stimulation (tDCS)
- Transcranial magnetic stimulation (TMS)
- Transcutaneous auricular vagus nerve stimulation (taVNS)

Nerve stimulation may improve [R, R, R, R, R, R, R, R]:

- Cognition
- Mood
- Pain
- Seizures
- Tinnitus

How it helps

Two meta-analyses (the largest one with 6 trials and 983 patients) found vagus nerve stimulation effective at reducing pain intensity and medication use in people with cluster headaches. According to one of them, vagus nerve stimulation is only effective for episodic but not chronic cluster headaches [R, R].

Occipital nerve stimulation relieved drug-resistant cluster headaches and the effects were sustained for an average of 15 months in 4 uncontrolled trials of 71 patients. This technique (30% and 100%) reduced attack frequency in a non-placebo-controlled trial of 150 patients with medically intractable chronic cluster headache [R, R, R, R, R].

Vagus nerve stimulation may help with headaches by inhibiting cortical spreading depression (a headache trigger) [R] and lowering extracellular glutamate concentrations in the pars caudalis of the spinal trigeminal nucleus [R].

Occipital nerve stimulation probably acts through modulation of the trigemino-cervical complex, namely the convergence of sensory inputs from C1–C2 roots on the nociceptive spinal trigeminal nucleus, by a “gate control theory-like” mechanism. ONS has also been suggested to act through central non-headache-specific pain control mechanisms [R].

11

Acupuncture

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

Visit a licensed acupuncturist for a session, typically lasting between 30 to 60 minutes, once or twice a week. Depending on your specific condition, a course of treatment might range from a few weeks to several months.

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 relieve pain and allergies, as well as reduce nausea and improve sleep.

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

According to experts, acupuncture may help with tension headaches. It may make headaches less frequent and improve quality of life in the short term [R, R, R, R, R, R, R, R, R].

It may also help with other types of headaches [R, R, R].

Acupuncture may help by releasing compounds that reduce pain [R, R].

Please note: *Acupuncture is safe for most people. However, it may come with extra risks for pregnant women, people with pacemakers, and people with bleeding disorders. Consult your doctor or a licensed acupuncturist for more information* [R].

PERSONALIZED TO YOUR GENES

The *HTR2A* gene encodes a type of serotonin receptor (5-HT2A). When activated, this receptor may cause sudden changes in brain blood flow and trigger headaches [R, R].

Your genotype for **rs6313** has been associated with increased 5-HT2A receptor activity and higher incidence of headaches [R, R, R].

Acupuncture has shown promising results for headaches — especially migraines. It may relieve pain by acting on the 5-HT2A receptors [R, R, R].

To learn more about this gene and how you may be able to counteract its effects, check out the HTR2A SelfDecode blog post here.

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
HTR2A	**rs6313**	GA	

12

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

A meta-analysis of 13 trials found that psychological therapy may improve stress symptoms in adults with tension-type headaches [R].

In a non-placebo-controlled trial of 87 headache patients, cognitive-behavioral therapy reduced headache intensity, frequency, and catastrophizing while improving coping strategies [R].

Mindfulness-based cognitive therapy improved pain intensity, interference, and catastrophizing, activity engagement, and self-efficacy in a non-placebo-controlled trial of 19 headache patients. The benefits were maintained for 6 months [R].

In children, psychotherapy can reduce headache intensity according to a meta-analysis of 23 studies. Another meta-analysis found that psychotherapy reduces pain frequency by 135% but the effects are not maintained at follow-up [R, R].

Psychotherapy may help with headaches by reducing stress, anxiety, and depression, all of which are associated with headaches [R]. Moreover, it can change thoughts and behaviors related to pain, provide coping strategies, and train the brain to send fewer pain signals [R].

13

Mindfulness Meditation

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

Practice mindfulness meditation for 10-20 minutes daily. Find a quiet, comfortable place to sit or lie down, then focus on your breath, observing thoughts and sensations without judgment. Consistency is key, so try to incorporate it into your daily routine, perhaps in the morning or before bed.

TYPICAL STARTING DOSE

30 minutes

Description

Mindfulness meditation involves focused attention on the breath or a specific point of focus to cultivate mindfulness and reduce stress. Regular meditation practice is associated with improved mental clarity, emotional regulation, and overall well-being.

How it helps

Stress is a common trigger for tension headaches. Experts agree that relaxation techniques may help prevent them. They may also help make headaches less severe [R, R, R, R, R, R, R].

Relaxation techniques that may help with headaches include:

- Yoga [R]
- Mindfulness meditation [R]
- Guided imagery (focusing your imagination on things that calm you) [R, R]
- Biofeedback [R, R, R, R, R, R, R, R]

Stress may trigger headaches by making you more sensitive to pain [R].

14

Chiropractic Adjustment

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

Schedule and attend chiropractic sessions 1-2 times per week for a period of 4-6 weeks initially, depending on the severity of your condition. Your chiropractor may adjust the frequency based on your progress.

TYPICAL STARTING DOSE

30 minutes

Description

Chiropractic adjustments are manual manipulation techniques used by chiropractors to improve musculoskeletal function, relieve pain, and enhance overall mobility. They are often used as part of a holistic approach to address various health concerns, primarily those related to the spine and joints.

Chiropractic adjustment involves applying pressure to different parts of the spine. It tends to help with pain and headaches [R, R].

Only a trained specialist should perform this procedure [R].

How it helps

Chiropractic adjustment may make headaches milder and less frequent. It may help more than massage. In some cases, it may also decrease the need for painkillers [R, R, R, R].

Chiropractic adjustment may help with headaches by:

- Reducing inflammation [R]
- Blocking pain signals [R]

Please note: *Chiropractic adjustment tends to be safe when done by a licensed specialist. However, some associated risks include nerve compression, stroke, and back problems. People at risk of stroke or those with bone problems should not seek chiropractic adjustment. Chiropractic adjustment may also not be the right choice for people who have numbness, tingling, or weakness in their arm or leg* [R].

15

Avoid Sensory Triggers

IMPACT 3 / 5

EVIDENCE 2 / 5

How to implement

Identify and keep a record of situations, environments, or objects that trigger unwanted sensory responses, such as bright lights for migraines or loud noises for auditory sensitivities. Actively avoid these triggers whenever possible, such as wearing sunglasses in bright environments or using noise-cancelling headphones in loud places. Implement these strategies consistently to minimize exposure to the identified triggers.

Description

Recognizing and avoiding sensory triggers, such as bright lights or loud noises, can help individuals with sensory processing issues manage their environment and reduce sensory overload and potential symptoms.

A "trigger" is something that prompts or worsens the symptoms of a health condition.

A number of things that you see, hear or smell may be sensory triggers [R, R].

For example, looking at a digital screen for too long may trigger symptoms in some people. These include [R, R]:

- Tired, itchy eyes
- Blurred vision
- Headache

How it helps

Sensory triggers have the potential to cause headaches in some people. These include:

- Bright light (such as from the sun) [R]
- Noise [R]

Digital screens can also act as sensory triggers. Prolonged use of devices such as computers and smartphones may trigger headaches by increasing eye strain [R].

Tips to reduce digital eye strain include [R, R]:

- Taking frequent breaks
- Adjusting the brightness of your device screen to match the ambient light
- Blinking more frequently
- Using artificial tears

Glasses that block certain wavelengths of light from digital screens may also reduce eye strain. However, the benefit of “blue-light glasses” on eye strain is mixed. Also, they may not help with headaches [R, R, R, R, R].

Certain odors may also trigger or worsen headaches. However, the link seems to be stronger in people with migraines [R, R].

PERSONALIZED TO YOUR GENES

People with your *TRPM8* gene variant may be more sensitive to light and sound during a headache [R].

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
TRPM8	**rs6724624**	CC	●●●○○

16

Limit Coffee Intake

IMPACT ●●○○○ 2 / 5

EVIDENCE ●●●○○ 3 / 5

How to implement

Reduce your coffee consumption to no more than 2-3 cups (approximately 200-300 mg of caffeine) per day. Try to avoid drinking coffee after 2 PM to minimize potential impacts on sleep.

Description

Limiting coffee consumption can help prevent potential side effects like jitteriness, insomnia, and increased heart rate, while allowing for better sleep quality and overall energy regulation. Moderation in coffee intake supports overall well-being without overstimulation.

People often drink coffee for an energy and mood boost [R, R].

However, **coffee also comes with some drawbacks.** Drinking a lot of coffee can increase blood pressure and anxiety. It may also cause headaches [R, R, R].

How it helps

Drinking a lot of coffee (more than 400 mg/day of caffeine) may lead to more frequent headaches in some people [R, R].

In the short term, caffeine can relieve headaches when combined with painkillers [R, R].

However, caffeine can also increase magnesium loss. Low magnesium levels have been linked to headaches [R, R, R].

Headaches are also a common symptom of caffeine withdrawal. Therefore, it may be best to change your drinking habits slowly [R, R].

17

Avoid Food Triggers

IMPACT 2 / 5

EVIDENCE 3 / 5

How to implement

Identify foods that trigger negative reactions in your body, such as digestive issues, allergies, or headaches, and eliminate them from your diet entirely. This may require keeping a food diary for a few weeks to observe patterns and might involve cutting out common triggers like dairy, gluten, soy, or certain additives. Continuously monitor and adjust your diet to avoid these triggers as long as the symptoms persist.

Description

Food triggers are specific substances or ingredients in one's diet that can exacerbate or induce adverse reactions, such as allergies, sensitivities, or digestive issues, often leading to symptoms like inflammation, bloating, or discomfort.

A "trigger" is something that prompts or worsens the symptoms of a health condition.

Food triggers can lead to a wide range of symptoms in people who are sensitive to them. These may include [R, R, R, R]:

- Gut problems
- Skin problems
- Migraines

How it helps

Some people may develop headaches after eating certain foods. Foods or ingredients that may trigger headaches include:

- Monosodium glutamate (MSG) [R, R, R, R]
- Histamine-rich foods (such as alcohol or aged cheese) [R, R, R, R, R, R, R]
- Gluten, in people with celiac disease [R, R]

Foods may trigger headaches by widening blood vessels [R, R, R, R].

18

Avoid Monosodium Glutamate (MSG)

IMPACT 2 / 5

EVIDENCE 3 / 5

How to implement

Carefully check food labels and ingredient lists of packaged foods to avoid products containing monosodium glutamate (MSG). When dining out, request meals without added MSG. This practice should be consistent for all meals and snacks.

Description

Avoiding excessive consumption of MSG, a common food additive, can help prevent potential side effects like headaches and allergic reactions in some individuals. Moderation in MSG intake promotes better tolerance and overall food enjoyment.

How it helps

A study of 684 patients with headaches identified monosodium glutamate as a trigger in 5.6% of them [R].

In line with this, the intake of sodium glutamate (75-150 mg/kg) triggered headaches in 4 placebo-controlled trials of 40 healthy volunteers and 61 sensitive people [R, R, R, R].

Glutamate may trigger headaches through its vasodilator effects [R, R, R].

19

Oxygen Therapy

IMPACT 2 / 5

EVIDENCE 3 / 5

How to implement

Use oxygen therapy by inhaling supplemental oxygen through a mask or nasal prongs for at least 15 hours daily, as prescribed by a healthcare provider. This is typically a continuous treatment for individuals with chronic respiratory conditions and should be followed every day, under medical supervision, to ensure proper oxygen levels in the blood.

TYPICAL STARTING DOSE

15 hours

Description

Oxygen therapy involves the administration of supplemental oxygen to individuals with breathing difficulties or low oxygen levels. It is used to improve oxygen intake, promote tissue healing, and enhance overall respiratory function.

How it helps

Two Cochrane reviews (the most recent one with 11 trials and 209 participants) concluded that normobaric oxygen therapy is as effective as ergotamine at terminating cluster headache [R, R].

Oxygen may help with headaches through its vasoconstrictive effects [R], as well as by inhibiting cranial parasympathetic outflow [R] and dural inflammation [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].

20

Exercise At Least One Hour a Day

IMPACT 2 / 5

EVIDENCE 2 / 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

A sedentary lifestyle is linked to headaches [R].

In line with this, **experts note that exercise may help manage headaches**. It may reduce the number and intensity of tension headaches [R, R].

Strengthening exercises for the neck may also help with tension headaches. They may reduce disability [R].

During exercise, your brain releases opioids and other pain-relieving compounds. These may help soothe headaches [R, R].

Please note: *Intense exercise might trigger some forms of headache. Work with your doctor to find the right exercise type and intensity* [R, R, R].

PERSONALIZED TO YOUR GENES

People with your *OPRM1* gene variant may be more sensitive to pain. This variant likely alters the activity of the opioids made by your body. Exercise may help by boosting your opioids [R, R].

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
OPRM1	**rs1799971**	GA	

21

Aerobic Exercise (Cardio)

IMPACT 2 / 5

EVIDENCE 2 / 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

Aerobic exercise helps in reducing tension and improves blood circulation, which can decrease the occurrence and severity of headaches. It also aids in stress reduction and better sleep, both of which are known triggers for headaches.

A meta-analysis of 27 studies concluded that aerobic exercise **reduces headache duration in people with tension-type headache** [R].

22

Gluten-Free Diet

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Remove all foods containing wheat, barley, and rye from your diet. This includes obvious sources like bread and pasta, as well as hidden sources in sauces, soups, and processed foods. Check labels for gluten-free certification, and aim to maintain this diet consistently, as even small amounts of gluten can cause symptoms to recur in sensitive individuals.

Description

A gluten-free diet is essential for individuals with celiac disease or gluten sensitivity. It helps prevent digestive issues and promotes overall health by avoiding foods containing gluten, a protein found in wheat, barley, and rye.

Gluten is a protein found in wheat and some other grains. **People with celiac disease have to follow a gluten-free diet to prevent gut damage.** A gluten-free diet eliminates all foods containing [R, R]:

- Wheat
- Barley
- Rye
- Malt
- Brewer's yeast

How it helps

A meta-analysis of 40 studies found that 26% of adults and 18.3% of children with celiac disease also suffered from headaches. Adopting a gluten-free diet totally resolved them in 75% of cases [R].

A survey on 866 people with celiac disease and headaches found that tension-type headache, affecting 52% of the participants, was the most common type [R].

In people with celiac disease, activated gliadin-specific T cells and antigliadin antibodies are found systemically and may cause inflammation in other tissues outside the gut, including the head [R].

23

Reduce Mobile Phone Use

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Limit your mobile phone use to less than 2 hours per day for non-work-related activities. Avoid using your phone during meal times and at least 1 hour before bedtime to improve sleep quality and reduce eye strain.

TYPICAL STARTING DOSE

2 hours

Description

Reducing mobile phone use involves limiting the time spent on smartphones and other electronic devices, which can help alleviate digital eye strain, improve sleep quality, and reduce the potential for distraction-related accidents.

Mobile devices like smartphones and tablets have become indispensable for:

- Communication
- Information searching
- Video gaming
- Social media participation

However, their excessive use may increase the risk of health conditions, such as [R, R]:

- Neck problems
- Carpal tunnel syndrome
- Sleep problems
- Mood disorders

How it helps

Excessive mobile phone use can lead to headaches due to eyestrain or tension in the neck and shoulders. By reducing use, you may alleviate these symptoms and experience fewer headaches.

In a meta-analysis of 30 studies out of 33 eligible ones, mobile phone use was linked to an increased risk of headaches. Subgroup analysis found higher risk in those aged >18 and with EMF exposure duration >100 minutes per week. Increasing call duration and age were sources of heterogeneity [R].

A literature review of 17 studies involving 1174 participants found no significant impact of short-term RF-EMF exposure on well-being, including subjective outcomes like headaches and objective measures such as heart rate variability [R].

24

Mindfulness

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Set aside 5-10 minutes each day to practice mindfulness meditation. Find a quiet place, assume a comfortable seated position, close your eyes, focus on your breathing, and observe your thoughts and sensations without judgment.

TYPICAL STARTING DOSE

30 minutes

Description

Mindfulness involves paying focused and non-judgmental attention to the present moment. It can reduce stress, improve emotional regulation, and enhance overall mental clarity and well-being.

Mindfulness is the practice of being aware of the present moment. When practicing mindfulness, a person acknowledges their thoughts, feelings, and sensations without any judgment [R].

Mindfulness and other types of meditation may improve [R]:

- Weight and anxiety
- Low mood
- Sleep disturbances
- Pain
- High blood pressure

How it helps

A meta-analysis of 10 trials and 325 participants found mindfulness meditation effective at reducing headache intensity and frequency. Interventions using mindfulness-based stress reduction or lasting over 8 weeks were especially effective [R].

Mindfulness-based cognitive therapy improved pain intensity, interference, and catastrophizing, activity engagement, and self-efficacy in a non-placebo-controlled trial of 19 headache patients. The benefits were maintained for 6 months [R].

Mindfulness may help by reducing stress, a common headache trigger.

25

Hot and Cold Applications

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Alternate applying a warm compress for 15-20 minutes, then a cold pack for 15-20 minutes to the affected area. Repeat this cycle 3-4 times per day for up to one week or until symptoms improve.

TYPICAL STARTING DOSE

15 minutes

Description

Alternating hot and cold applications, such as hot and cold packs, can help reduce pain and inflammation in sore muscles and joints. This method, known as contrast therapy, can promote muscle relaxation and improve circulation.

People use hot and cold applications to **relieve pain, improve blood flow, and more** [R, R].

Types of hot applications include [R, R]:

- Heating pads
- Hot baths
- Saunas

Types of cold applications include [R, R]:

- Ice packs
- Ice baths

How it helps

Using a **hot sauna regularly for 8 weeks** may help make **tension headaches** less intense. However, it may not shorten them [R].

Heating pads and **hot baths** may also help ease tension headaches [R].

Cold applications like **cold packs** may help with **tension headaches** as well. They may also help with **headaches from injury** [R, R, R].

26

Melatonin

IMPACT 2 / 5

EVIDENCE 2 / 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

People who have lower levels of melatonin at night may be more prone to **cluster headaches**. However, it's unclear whether melatonin supplements may help [R, R, R, R, R].

On the other hand, **melatonin supplements (3-4 mg at bedtime for 1-6 months)** may make **tension headaches** milder and less frequent [R, R].

Melatonin may help with headaches by [R, R]:

- Reducing inflammation and oxidative stress
- Calming the brain
- Restoring the internal clock

Please note: *Melatonin may interact with medications. Consult your doctor before taking melatonin* [R].

27

5-HTP

IMPACT 2 / 5

EVIDENCE 2 / 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 3 trials (2 of them placebo-controlled) of 209 patients with primary headache, supplementation with 5-HTP (300-400 mg/day) for 2-4 months reduced headache frequency, severity, and duration, and painkiller intake. Responsive patients were more likely to have previous major mood disturbances, longer duration of the illness and higher occurrence of some symptoms, lower incidence of exogenous and hormonal trigger factors, lower prevalence of anxiety, and previously positive response to pizotifen treatment [R, R, R].

5-HTP is a precursor of the neurotransmitter serotonin, which helps control pain perception.

28

Meditation

IMPACT 2 / 5

EVIDENCE 2 / 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

A meta-analysis of 10 trials and 325 participants found mindfulness meditation effective at reducing headache intensity and frequency. Interventions using mindfulness-based stress reduction or lasting over 8 weeks were especially effective [R].

Guided imagery, another type of meditation, reduced headache intensity, frequency, and duration, in addition to improving vitality and mental health, in 2 non-placebo-controlled trials of 189 chronic tension-type headaches [R, R].

Meditation helps reduce stress and improve pain tolerance.

29

Autogenic Training

IMPACT 2 / 5

EVIDENCE 2 / 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

Autogenic training, a relaxation technique, can ease headaches by lowering stress, which is a common trigger for headaches. It accomplishes this by prompting your body to switch from 'fight or flight' stress response to a relaxed state, thereby mitigating headache symptoms.

Non-placebo-controlled trials involving individuals with tension headaches or primary headaches showed positive outcomes with autogenic training. In a study of 152 participants, practicing autogenic training for 3 months, especially when combined with cervical spine kinesiotherapy, reduced various pain parameters. Another trial with 25 women found that practicing autogenic training for 4 months decreased headache frequency and reduced the use of medication. In two separate trials of 315 participants with chronic headaches, autogenic training was effective in reducing pain, particularly in those who were more hypnotizable [R, R, R, R].

30

Avoid Loud Noises

IMPACT 2 / 5

EVIDENCE 1 / 5

How to implement

Limit exposure to loud noises by keeping the volume down on personal audio devices, wearing earplugs at concerts or noisy work environments, and taking breaks in quiet areas when possible. Attempt to maintain noise levels below 85 decibels, especially for prolonged periods, to protect your hearing.

Description

Most sounds you're exposed to daily are quiet. However, there are times when sounds can be uncomfortably loud. **Exposure to loud noise for long periods of time can damage the cells of the inner ear**. This may lead to hearing impairment and conditions like tinnitus.

Exposure to loud noises may damage the inner ear or the auditory nerve. This may lead to hearing impairment or conditions like tinnitus [R, R].

Potentially damaging noises can be anything at a volume **above 70 decibels** (dB). The louder the noise, the less time it takes to cause damage to your ear. For reference, some volume levels of common sounds include [R, R]:

- Whispering (30 dB)
- Normal conversation (60-70 dB)
- Motorcycle (95 dB)
- Ambulance siren (110-129 dB)
- Fireworks, gunshots (140-165 dB)

How it helps

Noise triggered both tension headaches and migraines in a study of 68 people [R].

A study of 93 children with chronic tension headaches found that over 50% had an intolerance to light and noises during attacks [R].

Loud noises can be a trigger for headaches.

31

Low-Histamine Diet

IMPACT 2 / 5

EVIDENCE 1 / 5

How to implement

Exclude high-histamine foods such as aged cheeses, smoked meats, fermented products like sauerkraut and kombucha, alcohol, and preserved foods. Instead, focus on fresh meats, freshly caught fish, eggs, gluten-free grains, and fresh fruits and vegetables. Implement this diet consistently on a daily basis for at least 4 weeks to observe any improvements in symptoms.

Description

A low-histamine diet can be helpful for individuals with histamine intolerance or allergies, reducing the consumption of high-histamine foods and alleviating symptoms like headaches, hives, and digestive issues.

Histamine is an important chemical. Among other roles, it helps your body [R, R]:

- Protect itself from foreign invaders, by activating parts of the immune system
- Stay awake, by signaling certain parts of the brain
- Digest food, by increasing stomach acid

Histamine can also enter the body through the foods that you eat. Histamine-rich foods include [R, R]:

- Some fish (e.g., mackerel, tuna)
- Fermented foods and drinks (e.g., alcohol, yogurt, sauerkraut, cheese)
- Processed meats (e.g., sausages)
- Some fruits and vegetables (e.g., avocados, tomatoes, eggplant, spinach)

The way the food gets prepared may also play a role. Frying and grilling food may increase histamine levels. Boiling may decrease them [R].

How it helps

In an uncontrolled trial of 45 people with headaches and a history of intolerance to food or wine, adopting a histamine-free diet (avoiding fish, cheese, hard cured sausages, pickled cabbage and alcoholic beverages) considerably improved headaches in 33 of the patients, of whom 8 showed complete remission, after 4 weeks [R].

Histamine may trigger headaches through its vasodilator effects [R].

32

Reduce EMF Exposure

IMPACT 1 / 5

EVIDENCE 2 / 5

How to implement

To reduce EMF (Electromagnetic Field) exposure, keep your cell phone away from your body when not in use, use speakerphone or wired headphones for calls, and turn off Wi-Fi and electronic devices at night, especially in your sleeping area. Limit the use of devices that emit strong EMFs, such as microwaves, by standing back while they are in operation. Aim to create a low-EMF environment in your home and workplace as much as possible.

Description

Reducing electromagnetic field (EMF) exposure involves minimizing exposure to electromagnetic radiation emitted by electronic devices. Limiting EMF exposure may help reduce the risk of potential health concerns associated with long-term EMF exposure, such as electromagnetic hypersensitivity.

How it helps

In a meta-analysis of 30 studies, mobile phone use was linked to an increased risk of headaches. Subgroup analysis found higher risk in those aged >18 and with EMF exposure duration >100 minutes per week. Increasing call duration and age were sources of heterogeneity [R].

However, a literature review of 17 studies involving 1174 participants found no significant impact of short-term RF-EMF exposure on well-being, including subjective outcomes like headaches [R].

33

Alpha-Lipoic Acid

IMPACT 1 / 5

EVIDENCE 2 / 5

How to implement

Take 600-1800 mg of alpha-lipoic acid daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

100 mg

Description

Alpha-lipoic acid is a natural antioxidant found in almost every cell in your body. People use alpha-lipoic acid to help with issues like skin aging, weight loss, and high blood sugar [R, R, R].

People use alpha-lipoic acid to help with [R, R, R, R]:

- Complications of high blood sugar
- Skin aging
- Weight loss
- Carpal tunnel syndrome

How it helps

Alpha-Lipoic Acid acts as an antioxidant, helping to reduce inflammation which can ease headaches. However, it is not a primary treatment for headaches and its effectiveness may vary from person to person.

A search found 1154 articles; 16 were included in the review (9 on diabetic polyneuropathy, 7 on other painful conditions). ALA is effective for headaches, carpal tunnel, and burning mouth syndrome. Meta-analysis showed ALA reduced symptom scores in diabetic polyneuropathy [R].

34

Reflexology

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Attend a reflexology session with a certified practitioner for 30-60 minutes, once or twice a week. Continue consistently for at least 4-6 weeks to evaluate its impact on your well-being.

TYPICAL STARTING DOSE

30 minutes

Description

Reflexology is a holistic therapy that involves applying pressure to specific points on the feet, hands, or ears to stimulate natural healing processes throughout the body. It is believed to improve circulation, reduce stress, and promote relaxation, potentially benefiting overall well-being.

Reflexology is the practice of applying pressure to specific parts of your feet or hands. It's theorized that by pressing on these areas, you can relieve tension from other parts of the body [R].

People mainly use reflexology to help with stress and anxiety. It may also help with pain and sleep problems [R].

How it helps

A study of 220 patients with migraines or tension-type headaches found reflexology effective at improving general well-being, energy level, ability to interpret their own body signals, and ability to understand the reasons for headaches in 81% of the patients [R].

Reflexology may help by relieving tension and improving blood flow.

35

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

In 2 non-placebo-controlled trials of 315 participants with chronic headaches, self-hypnosis reduced pain, especially in more hypnotizable subjects [R, R].

Self-hypnosis may help by teaching your brain to change its response to pain signals, reducing the headache's intensity and frequency. Additionally, it provides a coping mechanism during an attack to reduce anxiety and distress.

36

Topical Peppermint Oil

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Apply 2-3 drops of peppermint oil diluted in a carrier oil (such as coconut or jojoba oil) directly to the area of concern. Do this no more than 2-3 times daily. Always perform a patch test on a small area of your skin first to check for any adverse reactions.

Description

Peppermint oil, extracted from the peppermint plant, is used topically for its cooling and soothing properties. It can provide relief from headaches, muscle aches, and skin irritations when applied to affected areas.

How it helps

In a placebo-controlled trial of 41 people with tension headaches, topical peppermint oil (10%) reduced headache intensity after 15 minutes as effectively as Tylenol (1,000 mg) [R].

However, the combination of peppermint oil and eucalyptus oil had a muscle and mentally relaxing effect, but little influence on pain sensitivity in another placebo-controlled trial of 32 healthy subjects [R].

Topical peppermint oil may help by creating a cooling sensation on the skin, which can stimulate the body's pain response away from the headache.

37

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

Progressive Muscle Relaxation, a technique of tensing and then relaxing each muscle group, can help manage headaches by relieving muscle tension and promoting relaxation. This method can also help to reduce stress and anxiety, which are primary triggers of tension headaches and migraines.

In a non-placebo-controlled trial of 66 tension headache patients, practicing progressive muscle relaxation for 4 weeks improved the symptoms and reduced medication use. A 7-session progressive muscle relaxation program decreased overall headache activity (by 37.5%) in a non-placebo-controlled trial of 26 patients with tension headaches [R, R].

38

Acupressure

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Apply firm pressure on specific acupoints related to your condition using your fingers or a blunt object for 1-3 minutes. Repeat this process 2-3 times a day for several weeks to potentially observe improvements.

TYPICAL STARTING DOSE

1 minute

Description

Acupressure is a traditional Chinese healing technique that involves applying pressure to specific points on the body to promote relaxation, alleviate pain, and improve overall well-being.

How it helps

In a non-placebo-controlled trial of 28 patients with chronic headaches, one month of acupressure therapy relieved pain more effectively than one month of muscle relaxant medication [R].

In a non-placebo-controlled trial of 85 women with menstrual headaches, the combination of auricular acupressure and body acupuncture effectively relieved pain [R].

Acupressure can help alleviate headache symptoms by promoting relaxation and pain relief through the application of pressure to specific points on the body.

39

Apply Heat

IMPACT 1 / 5

EVIDENCE 1 / 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 non-placebo-controlled trial of 37 with chronic tension-type headaches, attending a sauna regularly for 8 weeks reduced headache intensity by 27%. However, it had no effects on headache duration, disability, sleep quality, or depressive symptoms [R].

Hot applications may help by relaxing your muscles, especially when applied to the back of the neck.

40

Lavender Oil Aromatherapy

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Place 2-3 drops of lavender essential oil in a diffuser filled with water. Use the diffuser in your bedroom or workspace for 30-60 minutes, especially before bedtime or during periods of stress.

TYPICAL STARTING DOSE

2 drops

Description

Lavender oil aromatherapy involves inhaling the soothing scent of lavender essential oil. It is used to promote relaxation, reduce anxiety, and improve overall mental well-being.

How it helps

In a study with 50 patients experiencing post-dural puncture headache due to spinal anesthesia, aromatherapy using lavender oil was found to reduce pain severity only immediately after a 15-minute inhalation, with minimal effects observed at later time intervals [R].

Lavender oil aromatherapy may promote relaxation and calm the nervous system, which in turn can help reduce headache symptoms.

41

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

A study of 108 patients with aneurysmal subarachnoid haemorrhage associated elevated blood magnesium levels with less severe headaches and less frequent use of opioids [R].

Supplementation with magnesium pidolate (2.25 g, 2x/day) for 3 months decreased headache days by 70% and painkiller use by 65% in an uncontrolled trial of 45 children with episodic tension-type headaches [R].

Magnesium may help relax blood vessels and muscles.

PERSONALIZED TO YOUR GENES

The *NOS3* gene encodes *nitric oxide synthase 3*, which increases blood flow by widening the blood vessels (*vasodilation*). People with migraines may have excessive vasodilation in the brain [R, R].

Your genotype for rs2070744 has been associated with higher expression of *NOS3*, increased vasodilation, and increased incidence of migraines [R].

Magnesium is essential for the removal of nitric oxide from cells [R].

To learn more about this gene and how you may be able to counteract its effects, check out the SelfDecode blog post on this gene here.

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
NOS3	**rs2070744**	TC	

42

Avoid Excess Sunlight Exposure

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Limit direct sun exposure to early morning or late afternoon hours, ideally before 10 a.m. or after 4 p.m., when UV rays are less intense. Wear protective clothing, such as long-sleeved shirts, pants, and wide-brimmed hats, along with sunglasses that block UVA and UVB rays. Apply a broad-spectrum sunscreen with at least SPF 30 to all exposed skin, reapplying every two hours or immediately after swimming or sweating.

Description

Avoiding excessive sunlight exposure and practicing sun safety measures, such as wearing sunscreen and protective clothing, helps reduce the risk of skin damage, including sunburn and skin cancer. It supports long-term skin health and minimizes the harmful effects of UV radiation.

Sunlight or bright light during the day can benefit your body and mind. It may [R, R, R]:

- Boost your mood
- Boost your performance and energy
- Improve sleep quality

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].

However, **excessive sun exposure may lead to sunburn, skin aging, and skin cancer**, so make sure to find the right balance [R, R].

How it helps

In a study of 1,219 patients with headaches (344 of them with tension headaches), sunlight was identified among the main triggers of both tension headaches and migraines [R].

A study of 93 children with chronic tension headaches found that over 50% had an intolerance to light and noises during attacks [R].

Excessive sunlight exposure can act as a trigger for migraines and headaches.

43

Beta-Glucans

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take a beta-glucan supplement daily, with a dosage ranging from 250mg to 500mg. It is best consumed with a meal to enhance absorption. Continue this routine daily to support immune health.

Description

Beta-glucans are types of soluble fiber found in foods like oats and barley. They have been associated with immune system support and may help lower cholesterol levels when consumed as part of a heart-healthy diet.

Beta-glucan is a type of soluble fiber with antioxidant properties. It is abundant in [R, R]:

- Baker's yeast
- Cereals (e.g., oats, barley)
- Mushrooms (e.g., maitake)
- Seaweeds

People use beta-glucans to [R, R, R, R, R]:

- Improve immunity (e.g., fight infections)
- Reduce blood sugar
- Reduce cholesterol

How it helps

Beta-glucans can boost your immune system, but there's no direct evidence to show they can treat headaches. Try to identify and address the specific causes of your headaches for effective relief.

In a placebo-controlled trial of 207 participants with borderline high LDL-cholesterol, supplementation with beta-glucans (1 g, 3x/day) for 4 weeks **decreased the occurrence of exhaustion and fatigue, and the severity of anxiety and headaches** [R].

44

Myrrh

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take myrrh as a supplement in capsule form, usually available in 200-400 mg capsules. Consume one capsule, 2-3 times daily, with water after meals. Continue this regimen for up to 8 weeks, then take a break or consult with a healthcare provider for further usage.

TYPICAL STARTING DOSE

400 mg

Description

Myrrh is a resin extracted from tree sap and is used in traditional medicine and aromatherapy for its potential anti-inflammatory and antimicrobial properties. It may be used topically or as an essential oil for skin health and relaxation.

How it helps

A study of 95 females and 89 males with various pain issues found that males benefited from 400 mg of MyrLiq for most conditions, while females found relief with 200 mg for lower back and fever-dependent pain [R].

Myrrh has anti-inflammatory properties that can help reduce the swelling of blood vessels in the head, thereby alleviating headaches. Additionally, its analgesic effects can block pain signals, offering relief from headache discomfort.

45

Guided Imagery

IMPACT 1 / 5

EVIDENCE 1 / 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

Guided imagery reduced headache intensity, frequency, and duration, in addition to improving vitality and mental health, in 2 non-placebo-controlled trials of 189 chronic tension-type headaches [R, R].

Guided imagery may help by reducing stress, which is a major trigger for headaches.

46

Cold Applications

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Apply a cold pack or a bag of frozen peas wrapped in a towel to the affected area for 15-20 minutes, every 2-3 hours during the first 48 hours of experiencing pain or swelling.

TYPICAL STARTING DOSE

15 minutes

Description

Cold applications, such as ice packs, can help reduce inflammation, alleviate pain, and promote muscle recovery after injuries or intense physical activity. Applying cold can provide temporary relief from discomfort and support the body's natural healing processes.

People use cold applications to relieve pain, reduce inflammation, and more [R, R].

Types of cold applications include [R, R]:

- Ice packs
- Ice baths
- Cryotherapy

How it helps

Applying cold packs reduced post-traumatic headaches in a non-placebo-controlled trial of 23 patients. However, physical therapy was more effective [R].

Cold application may help by reducing pain perception, reducing inflammation, and constricting the blood vessels.

PERSONALIZED TO YOUR GENES

The *DBH* gene codes for *dopamine beta-hydroxylase* (DBH), an enzyme that converts dopamine to norepinephrine. Norepinephrine constricts blood vessels in the brain, which may prevent migraine [R, R].

Your genotype for rs1611115 is associated with increased risk of migraines. The ‘C’ allele may produce lower levels of DBH, leading to decreased amounts of norepinephrine [R, R, R, R].

Applying a cold compress to the back of the neck may reduce the severity and duration of headaches, in part by increasing norepinephrine levels [R, R].

To learn more about this gene and how you may be able to counteract its effects, check out the SelfDecode blog post on this gene here.

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
DBH	**rs1611115**	CC	

47

Myofascial Release

IMPACT 1 / 5

EVIDENCE 1 / 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, a type of hands-on therapy, eases tension in the web of connective tissues around your muscles (called the myofascia). This can potentially help with headaches by releasing the muscle tightness that often contributes to the onset and intensity of headaches.

In a non-placebo-controlled trial of 63 patients with episodic or chronic tension-type headache, myofascial release (24 sessions over 12 weeks), both direct and indirect, reduced the number of days with headache and headache frequency [R].

48

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

A meta-analysis of 5 trials found significant overall effects of yoga on headache frequency, headache duration, and pain intensity in people with tension headaches but not migraines [R].

Yoga may help by promoting relaxation, reducing stress, and improving blood flow to the brain. Specific poses like the 'Child's Pose' and 'Corpse Pose' can provide relief from headache symptoms and sometimes prevent them.

49

Transcendental Meditation

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Practice transcendental meditation for 20 minutes twice a day, once in the morning before breakfast and once in the afternoon or early evening. Sit comfortably in a quiet place, close your eyes, and silently repeat a mantra given to you by a certified transcendental meditation teacher.

TYPICAL STARTING DOSE

20 minutes

Description

Transcendental Meditation is a technique for mindfulness and stress reduction that involves silently repeating a specific mantra to attain a state of deep relaxation and heightened awareness. It is associated with reduced stress, improved focus, and enhanced overall well-being.

How it helps

Practicing Transcendental Meditation reduces stress and promotes relaxation, which can alleviate the severity and frequency of headaches. It helps to modify pain perception and improve mental wellbeing, thus supporting overall headache management.

In a non-placebo-controlled trial of 131 children with primary headaches, transcendental meditation improved headaches and reduced medication use as effectively as progressive muscle relaxation and hypnotherapy [R].

50

Valerian

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take 500 mg of valerian supplement about 30 minutes to an hour before bedtime to help improve sleep quality. Do this daily for best results.

TYPICAL STARTING DOSE

500 mg

Description

Valerian is an herbal supplement made from the roots of the Valeriana officinalis plant. It is commonly used as a natural remedy for sleep disorders and anxiety due to its potential to induce relaxation and improve sleep quality.

Valerian root is a medicinal herb with relaxing properties. People use it to improve [R, R, R, R, R]:

- Sleep
- Seizures
- Anxiety
- Headaches

Compounds in valerian help [R, R, R, R, R, R]:

- Reduce stress
- Suppress inflammation
- Relax muscles

How it helps

In a placebo-controlled trial of 88 people with tension headaches, supplementation with valerian (530 mg, 2x/day) for 1 month reduced headache severity, disability, and impact on daily living performance [R].

Valerian may help by relaxing the muscles and reducing tension in the body.

51

Creatine

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take 4 grams of creatine supplement daily, ideally mixed with water or juice. This dosage can be maintained consistently without needing specific periods of cycling on or off.

TYPICAL STARTING DOSE

2 g

Description

Creatine is a popular dietary supplement among athletes and bodybuilders, known to enhance muscle performance during short bursts of high-intensity activities. It may help improve exercise performance and support muscle growth when used as directed.

Creatine is a compound naturally produced by the body. It's stored in the muscles and brain [R].

During exercise, creatine is released to boost performance and help build muscles. For this reason, it's a popular supplement among athletes [R, R].

Sources of creatine include [R]:

- Red meat
- Seafood
- Supplements

How it helps

In a non-placebo-controlled trial of 39 children and adolescents with traumatic brain injury, administering creatine (0.4 g/kg) for 6 months improved headache in all patients [R].

52

Aromatherapy

IMPACT 1 / 5

EVIDENCE 1 / 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 non-placebo-controlled trial of 46 adolescents with chronic headaches, receiving a brief foot bath with peppermint oil reduced pain and anxiety [R].

Inhaling lavender essential oil for 15 minutes reduced the severity of post-dural puncture headache immediately after the intervention [R].

53

EFT Tapping

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Perform EFT (Emotional Freedom Technique) tapping daily for about 15 to 20 minutes. Focus on a specific issue while tapping with your fingertips on 9 specific meridian points on the body in a sequence: karate chop (side of the hand), top of the head, eyebrow, side of the eye, under the eye, under the nose, chin, beginning of the collarbone, and under the arm. Repeat the process 3 to 5 times or until you feel relief.

TYPICAL STARTING DOSE

20 minutes

Description

EFT Tapping is a mind-body technique that involves tapping on specific acupressure points while focusing on emotional issues or physical discomfort. Some individuals find it helpful for managing stress, anxiety, and emotional well-being.

How it helps

In a non-placebo-controlled trial of 35 patients with tension-type headaches, EFT tapping reduced the frequency and severity of headaches and perceived stress, while improving quality of life [R].

54

Keto Diet

IMPACT 0 / 5

EVIDENCE 1 / 5

How to implement

Adopt a diet that consists of about 70-80% fat, 10-20% protein, and 5-10% carbohydrates. Eliminate or significantly reduce the intake of sugar and starches like bread, pasta, rice, and potatoes, focusing instead on high-fat foods like meats, fatty fish, eggs, butter, and healthy oils, as well as low-carb vegetables like leafy greens. This dietary pattern should be maintained consistently for a period of at least 3-4 weeks to achieve ketosis, after which it can be adjusted based on individual goals and responses.

Description

The keto diet is a high-fat, low-carbohydrate eating plan designed to induce a state of ketosis in the body, where it primarily burns fat for energy. It is often used for weight loss and managing certain medical conditions.

The ketogenic diet, or the ‘keto’ diet, is rich in fat and restricts carb intake [R, R].

On the ketogenic diet, 50 g of carbs or less are consumed per day. Around 55-80% of the calories come from fat [R].

The ketogenic diet depletes the body of sugars like glucose. When people fast or eat very little carbs, the body makes less insulin. In response, the body starts using fat for energy.

When the body only uses fat for energy, molecules called ketones are formed. This state is called *ketosis*.

The ketogenic diet may help with:

- Seizures [R]
- Excess weight [R]
- Diabetes [R, R]

How it helps

In 2 uncontrolled trials of 30 people with drug-resistant cluster headaches, adopting a modified Atkins ketogenic diet for 3 months reduced the severity and recurrence of bouts [R, R].

The ketogenic diet may help with headaches by:

- Promoting weight loss [R]
- Reducing brain inflammation [R]
- Reducing oxidative stress in the brain [R]
- Improving brain energy metabolism [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	0.8 – 1.6	9 Nov 2025
TSH	2.76 mcIU/mL	0.4 – 1.5 – 2.5 – 4.5	9 Nov 2025
Ferritin	102.2 ng/mL	30 – 50 – 150 – 380	9 Nov 2025
Glucose, Fasting	97 mg/dL	55 – 65 – 80 – 95 – 100 – 126	9 Nov 2025
T4 (Thyroxine), Total	7.27 mcg/dL	4.9 – 10.5	9 Nov 2025
Sodium	137 mmol/L	125 – 135 – 136 – 142 – 145 – 155	9 Nov 2025
Magnesium	2.17 mg/dL	1.2 – 1.5 – 2 – 2.6 – 4.9	9 Nov 2025
T3, Free (FT3)	3.34 pg/mL	2.3 – 3 – 4.7	9 Nov 2025
Hematocrit	51.8 %	20 – 40 – 47 – 52 – 65	9 Nov 2025

Hemoglobin

17.1 g/dL

9 Nov 2025

hs-CRP

1.6 mg/L

9 Nov 2025

T3 Total

0.95 ng/mL

9 Nov 2025

Iron

228 mcg/dL

9 Nov 2025