SelfDecode™

Anhedonia

Biohacker Report

REPORT CATEGORY

MENTAL HEALTH

Sample Client

Report date: 15 January 2026

Powered by

omicsedge

Table of Contents

Personal information

NAME

Sample Client

SEX AT BIRTH

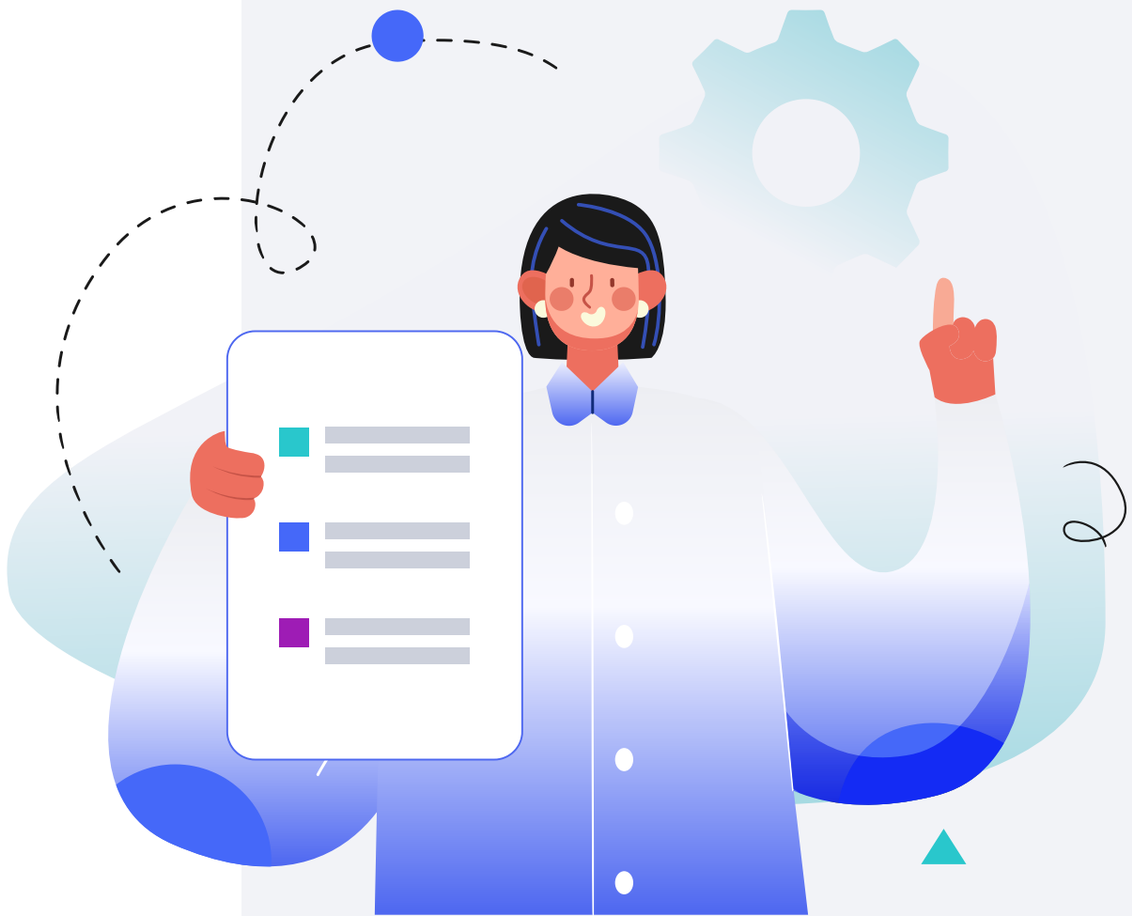
Male

HEIGHT

5ft 5" 165cm

WEIGHT

137lb 62kg

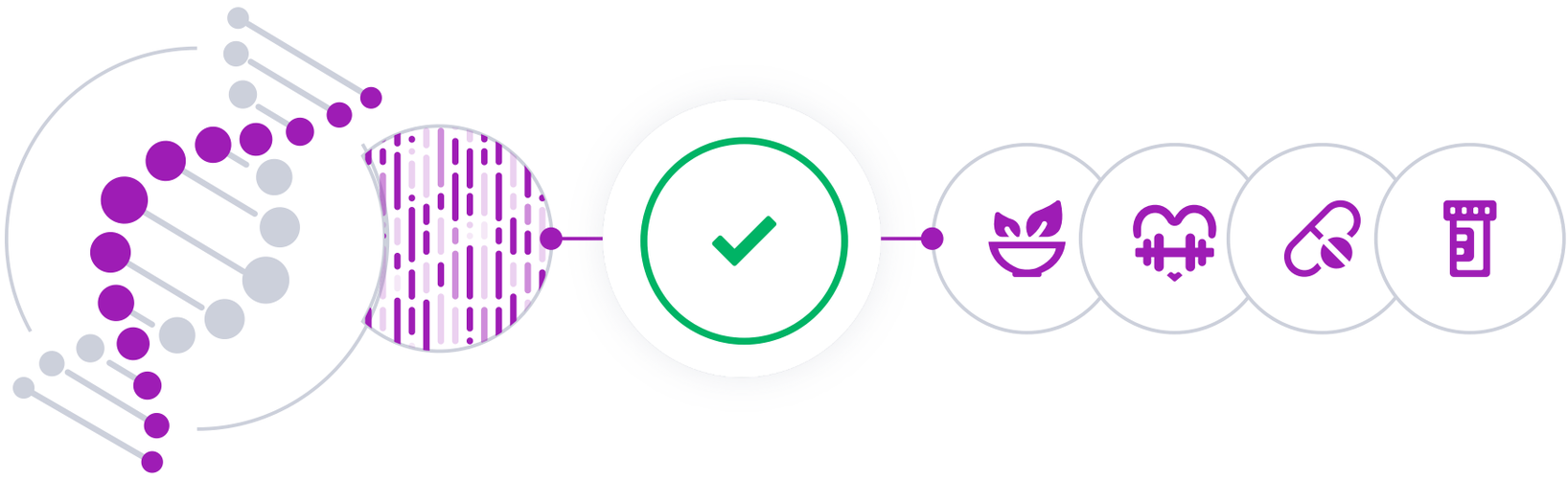


DISCLAIMER

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

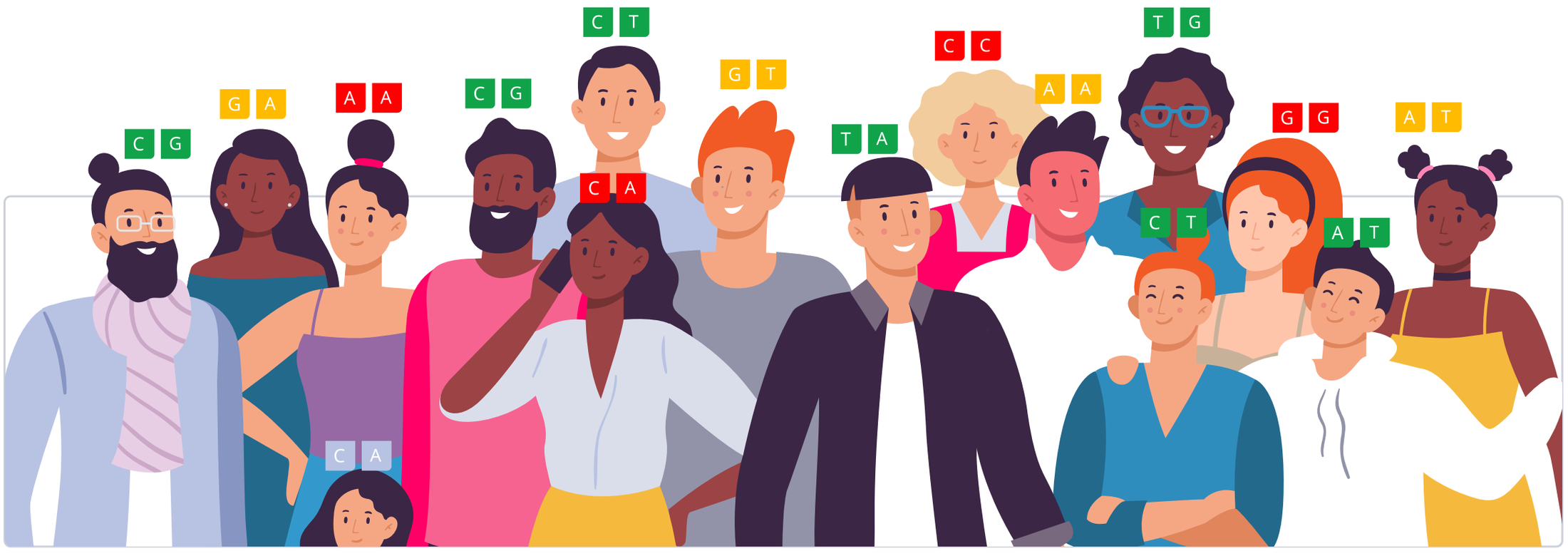
Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.



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.

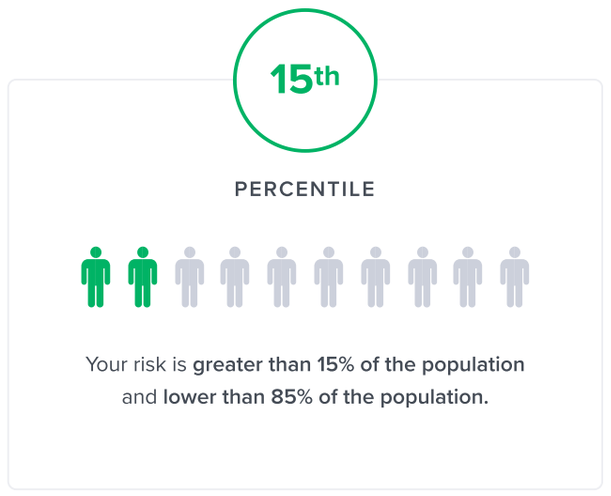
Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



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

Anhedonia is the reduced ability to experience pleasure or the loss of interest or satisfaction in almost all activities that usually bring joy. It's a core symptom of **depression** but can also be present in other mental health disorders, including:

- Schizophrenia
- PTSD
- Substance use disorders

Common manifestations of anhedonia include:

- Decreased interest in activities that were once enjoyable, such as hobbies.
- Reduced interest in social interactions.
- Decreased ability to experience pleasure from sensory experiences, like food, touch, or music.
- Lack of motivation to initiate or persist in activities.
- Diminished interest in sexual activity.

Risk Factors and Genetics

Factors that might increase the risk of experiencing anhedonia include:

- Having a mood disorder, like depression or bipolar disorder.
- Chronic stress or exposure to traumatic events.
- Neurochemical imbalances in the brain.
- Chronic physical illnesses, such as Parkinson's disease or multiple sclerosis.
- Substance abuse or withdrawal from substances like alcohol or drugs.
- Genetics

Anhedonia and other depressive symptoms tend to run in families, indicating a potential genetic predisposition. Specific genes related to neurotransmitter function, especially dopamine and serotonin, might influence an individual's risk for developing anhedonia.

LESS LIKELY

Less likely to have anhedonia based on 3 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
LRRC4C	rs140920627	CC
ESRRG	rs12042302	TT
EVI5L	rs2335859	TT

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	Neurostimulation Treatment	30 minutes
2	Mindfulness	30 minutes
3	Cognitive-Behavioral Therapy (CBT)	
4	Psychotherapy	1 hour
5	Practice Exercise Snacks	1 minutesute
6	Mindfulness-Based Cognitive Therapy (MBCT)	2 hours
7	Art Therapy	1 hour
8	Cognitive Bias Modification	15 minutes

1

Neurostimulation Treatment

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

Schedule sessions for neurostimulation treatment with a qualified healthcare provider. Typically, treatments are conducted 2-3 times a week for a duration of 4-6 weeks, depending on your specific condition and response to treatment. Ensure each session lasts approximately 30-60 minutes.

TYPICAL STARTING DOSE

30 minutes

Description

Neurostimulation treatments encompass various therapies that use electrical or magnetic stimulation to modulate neural activity, potentially alleviating chronic pain, mood disorders, or neurological conditions.

How it helps

Non-invasive brain stimulation may have medium-to-large effects on anhedonia in people with schizophrenia or depression. Techniques that may help include [R, R]:

- Transcranial direct current stimulation (tDC)
- Repetitive transcranial magnetic stimulation (rTMS)

Neurostimulation may help by targeting and modulating specific brain circuits involved in the processing of reward and pleasure.

2

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

In a non-placebo-controlled trial of 73 participants experiencing anhedonia, mindfulness-based cognitive therapy (up to 15 sessions) reduced anhedonia [R].

Practicing mindfulness improved anhedonia in 224 patients with depression and 293 with opioid use [R, R, R].

However, a school-based mindfulness program failed to improve anhedonia in a non-placebo-controlled trial of 231 adolescents [R].

Mindfulness practices may help by encouraging individuals to engage fully with the present moment, thereby increasing their awareness and appreciation of everyday pleasures that they might otherwise overlook.

3

Cognitive-Behavioral Therapy (CBT)

IMPACT 2 / 5

EVIDENCE 2 / 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

In 2 non-placebo-controlled trials of 492 patients with major depressive disorder, CBT (both face-to-face and internet-delivered) improved anhedonia [R, R].

CBT may help by identifying and challenging the negative thought patterns and beliefs that contribute to a lack of pleasure and interest in activities.

4

Psychotherapy

IMPACT 2 / 5

EVIDENCE 2 / 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

In 2 non-placebo-controlled trials of 492 patients with major depressive disorder, CBT (both face-to-face and internet-delivered) improved anhedonia [R, R].

In a non-placebo-controlled trial of 80 patients with schizophrenia or schizoaffective disorder, receiving the Positive Emotions Programme for Schizophrenia for 8 weeks reduced anhedonia [R].

Psychotherapy may help by providing a supportive environment where individuals can explore and understand the underlying emotional and cognitive factors contributing to their inability to experience pleasure.

5

Practice Exercise Snacks

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Integrate short bursts of physical activity, each lasting about 1 to 2 minutes, into your daily routine at least two to three times a day. These 'exercise snacks' can include activities like doing a set of stairs, rapid bodyweight exercises, pull-ups, push-ups, sit-ups, or brisk walking.

TYPICAL STARTING DOSE

1 minutesute

Description

Staying physically active is essential for maintaining overall health and well-being. **Exercise snacks** are brief, frequent bursts of physical activity integrated into daily routines, helping combat the health risks associated with prolonged sitting and sedentary behavior, such as obesity and cardiovascular issues. Examples include taking the stairs or doing quick exercises during work breaks.

Staying active can do wonders for your health. It can help you lose weight, improve your heart health, boost your mood, and more [R].

Exercise snacks are short, quick bursts of physical activity performed throughout the day, designed to break up prolonged periods of sitting or inactivity. These brief bouts of exercise can be as short as a few minutes and are incorporated into daily routines to boost overall physical activity levels.

Exercise snacks are crucial for health because they combat the negative effects of sedentary behavior, such as prolonged sitting, which is associated with an increased risk of obesity, cardiovascular diseases, diabetes, and musculoskeletal issues. They help improve blood circulation, regulate blood sugar levels, and enhance mood and cognitive function.

Examples of exercise snacks include taking the stairs instead of the elevator, doing a few minutes of bodyweight exercises (e.g., squats or push-ups) during work breaks, or walking briskly for a few minutes after meals. These short, frequent bursts of activity contribute to a more active lifestyle and can significantly benefit overall health by reducing the risks associated with excessive sitting.

How it helps

In people with depression, lack of physical activity has been associated with anhedonia and fatigue [R].

Physical activity may help by boosting the release of endorphins and other neurochemicals like dopamine and serotonin, which play key roles in mood regulation and the ability to experience pleasure.

6

Mindfulness-Based Cognitive Therapy (MBCT)

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Participate in an 8-week course of Mindfulness-Based Cognitive Therapy (MBCT), which typically includes weekly group sessions (each lasting about 2 hours), daily homework practices (about 1 hour per day), and one all-day session after the fifth week. Sessions are led by trained instructors and focus on mindfulness meditation practices and cognitive behavioral exercises.

TYPICAL STARTING DOSE

2 hours

Description

Mindfulness-Based Cognitive Therapy (MBCT) is a therapeutic approach that combines mindfulness practices with cognitive-behavioral techniques to help individuals manage and prevent recurring episodes of depression and anxiety.

How it helps

In a non-placebo-controlled trial of 73 participants experiencing anhedonia, mindfulness-based cognitive therapy (up to 15 sessions) reduced anhedonia [R].

MBCT may help by teaching individuals to become more aware of their present experiences, reducing rumination and negative thought patterns that can diminish the capacity to experience pleasure.

7

Art Therapy

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Participate in art therapy sessions, which can include activities such as painting, sculpting, or drawing, for 1-2 hours per week. These sessions can be done either in group settings guided by a trained art therapist or individually, depending on your comfort level and goals. It is beneficial to engage in this practice consistently for several months to observe the therapeutic benefits.

TYPICAL STARTING DOSE

1 hour

Description

Art therapy is a type of therapy that encourages free self-expression and reflection through [R]:

- Painting
- Drawing
- Clay modeling

It may be combined with mindfulness. Mindfulness is the practice of being aware of the present moment without any judgment [R].

Art therapy is used to improve [R]:

- Self-esteem
- Self-awareness
- Emotional resilience
- Social skills

How it helps

Art therapy may help with anhedonia and other negative symptoms in people with schizophrenia [R].

Art therapy may help by stimulating the brain's reward centers.

8

Cognitive Bias Modification

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Engage in daily sessions of cognitive bias modification exercises for at least 15 minutes. These can involve computerized programs or mobile app-based tasks designed to alter negative thought patterns. Continue this practice for a minimum of 4 to 8 weeks to observe noticeable changes in thought processes.

TYPICAL STARTING DOSE

15 minutes

Description

Cognitive bias modification (CBM) is a psychological technique designed to change automatic cognitive biases or negative thinking patterns associated with mental health issues. It aims to promote more positive thought patterns and emotional well-being.

Cognitive bias modification (CBM), also known as Attentional Bias Training (ABT), is a computer-based therapy that teaches you not to focus on negative information [R, R].

Some people pay more attention to negative information or are more likely to interpret neutral information as threatening. This increases the production of stress hormones and chemical messengers, like adrenaline and cortisol. CBM aims to “re-train” this attention and interpretation bias [R].

How it helps

In a non-placebo-controlled trial of 101 individuals with depressive symptoms, self-administered imagery cognitive bias modification improved anhedonia, interpretation bias, and depressive symptoms [R].

Cognitive bias modification may help by directly targeting and altering the negative cognitive biases that contribute to a diminished ability to experience pleasure.

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.

Vitamin B12	**687 pg/mL**	200 400 1000 1100	9 Nov 2025
Vitamin D, 25-Hydroxy, Total	**58.59 ng/mL**	10 20 30 75 150	9 Nov 2025