SelfDecode™

Motion Sickness

DNA Health Report

REPORT CATEGORY

HEARING & BALANCE

Sample Client

Report date: 15 January 2026

Powered by omicsedge

Table of Contents

DISCLAIMER

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

Personal information

NAME

Sample Client

SEX AT BIRTH

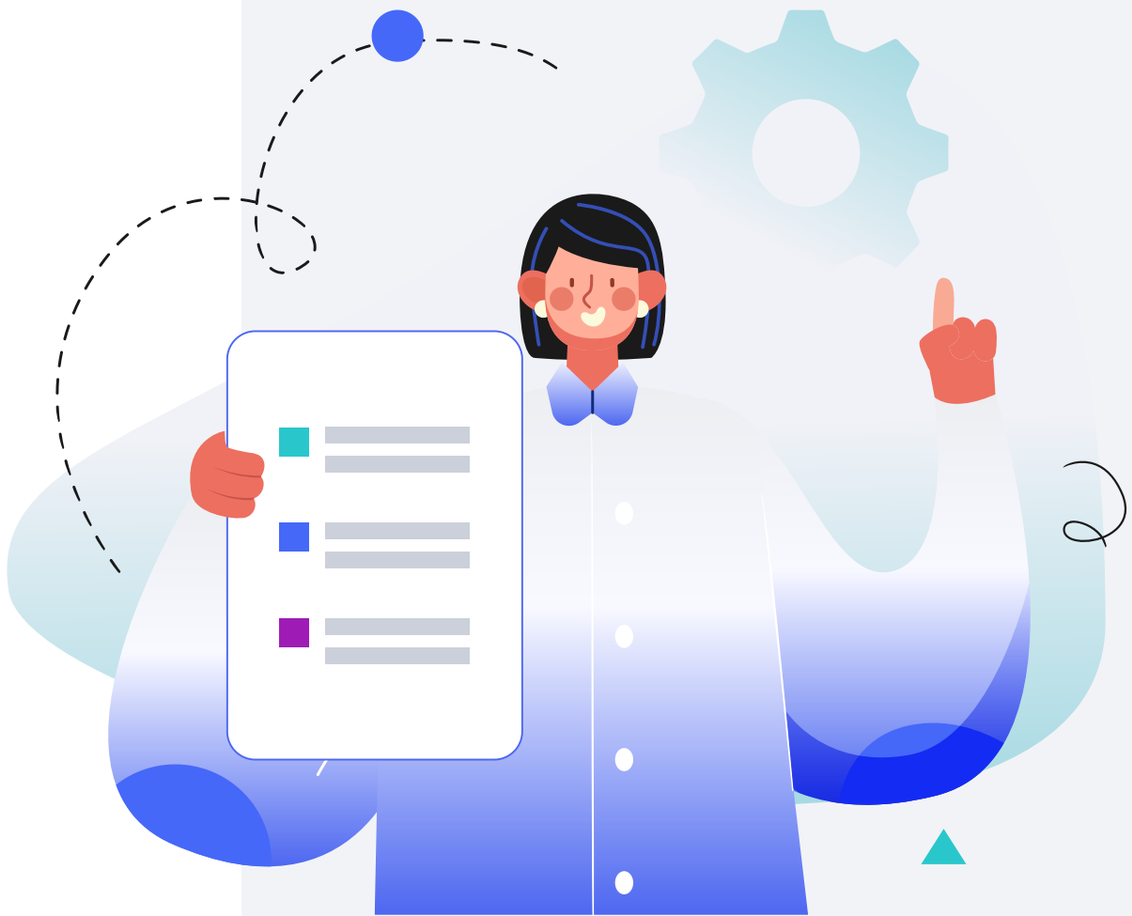
Male

HEIGHT

5ft 5" 165cm

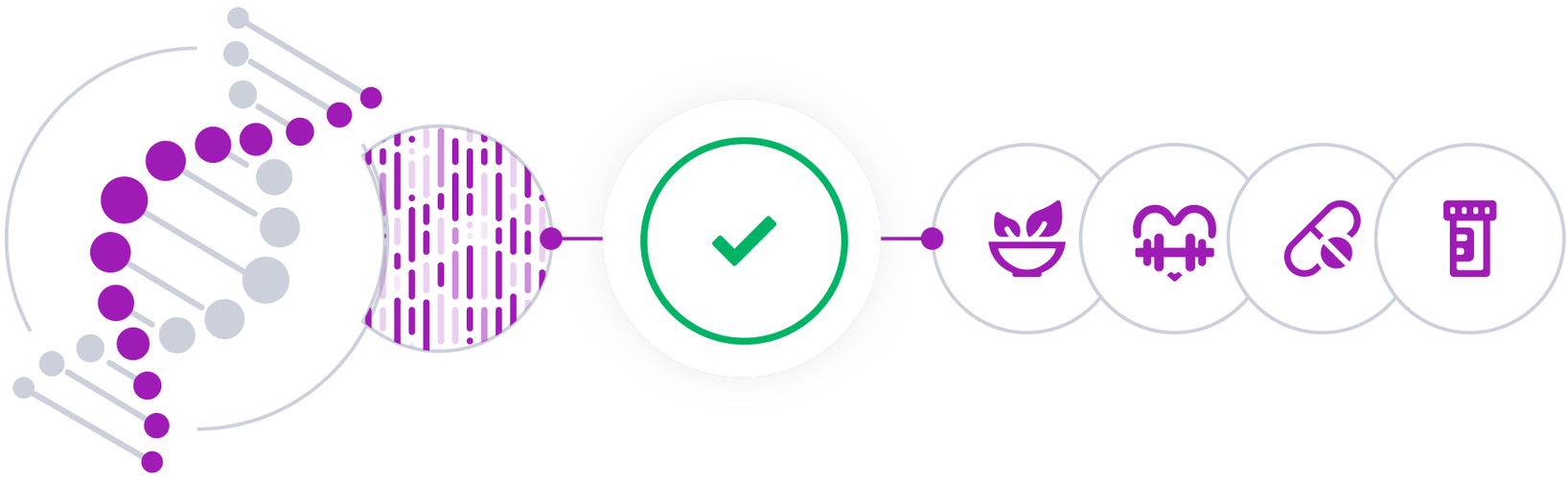
WEIGHT

137lb 62kg



How this works

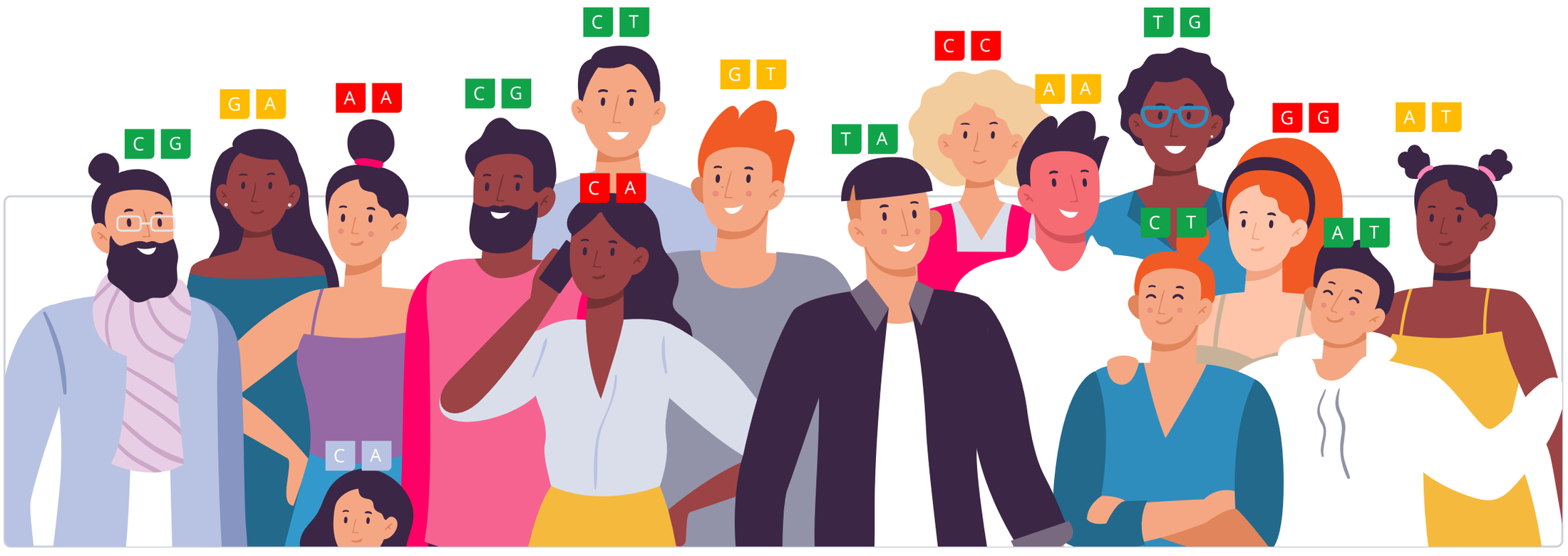
Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.



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

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

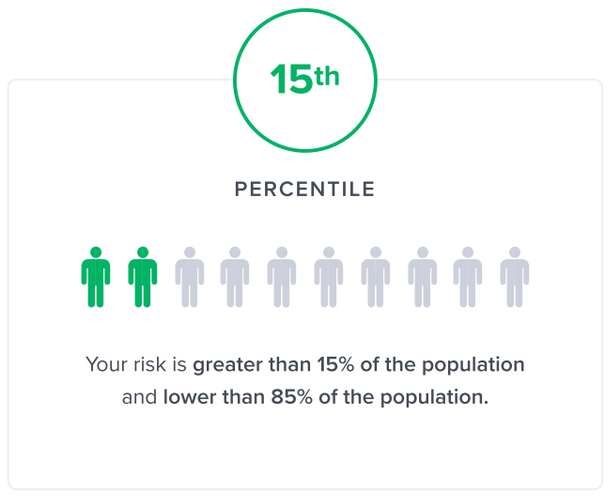
Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



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

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

Motion sickness is a disturbance of the inner ear caused by repeated motion. This can be caused by the:

- Swell of the sea
- Movement of a car
- Turbulence in an airplane

The inner ear sends signals to the eyes and sensory nerves regarding the body's position and movement. When these signals conflict with signals from other body parts, motion sickness can arise.

Common manifestations of motion sickness include:

- **Dizziness.**
- Nausea or vomiting.
- Cold sweating.
- Increased salivation.
- Shortness of breath.
- Yawning.
- Malaise (a general feeling of discomfort or unease).
- Loss of appetite.
- Headaches.

Risk Factors and Genetics

Up to **70%** of the differences in motion sickness may be due to genetics [R].

If one's parents or siblings experience motion sickness, there's an increased likelihood of experiencing it as well. Specific gene variants associated with the inner ear, balance, and sugar metabolism may be involved [R].

Other factors that may also increase the risk of experiencing motion sickness include:

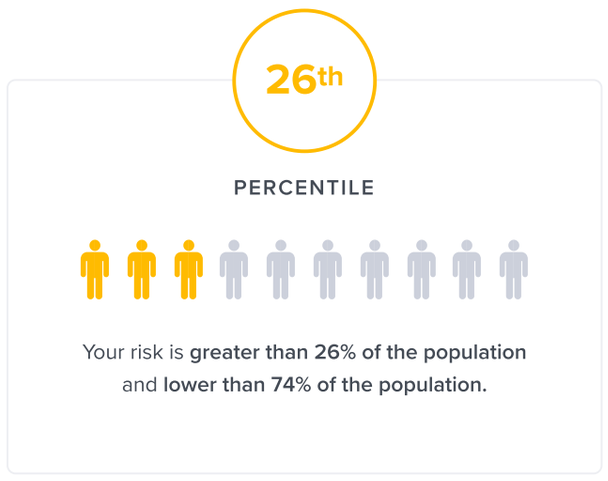
- **Young age (between 2 and 12 years old).**
- Being prone to migraines.
- Hormonal changes (e.g., during menstruation).
- Anxiety or fear of traveling.

While on a moving vehicle, the following factors may also increase the risk or worsen symptoms:

- Lack of control over movement (as a passenger vs. a driver).
- Traveling on an empty stomach or immediately after a heavy meal.
- Reading or focusing on close objects.
- Lack of ventilation.
- Alcohol intake.

TYPICAL LIKELIHOOD

Typical likelihood of having motion sickness based on 15,766 genetic variants we looked at



Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
AUTS2	rs1195218	GG
CBLN4	rs6069325	TT
ZNF385D	rs11129078	GG
NLGN1	rs11713169	AA
PSAT1	rs149951341	AA
PDZRN4	rs7957589	AA
/	rs62018380	CC
HOXD3	rs2551802	GG
AUTS2	rs6946969	GG
RGS5	rs4076764	TT
LRP1B	rs17515225	TT
/	rs1378552	CC
GXYLT2	rs1847202	TT
YAE1	rs60464047	AT
/	rs2150864	AG
CPNE4	rs9834560	CA
RWDD3	rs1858111	GA
SDK1	rs34912216	GA
SDK1	rs4343996	GA
CELF2	rs10752212	GA
TUSC1	rs1782032	AG
SKAP1	rs9906289	CC
/	rs66800491	GG
GPD2	rs56051278	AA

GENE	SNP	GENOTYPE
/	rs10970305	CC
GPR26	rs705145	AC
PRDM16	rs61759167	CC
ST18	rs2360806	AA
SMIM21	rs10514168	CC
/	rs6833641	CC
SLC35B3	rs2153535	CC
IQCA1	rs2318131	AA
/	rs7170668	CC
MAP2K5	rs997295	GG
LRP1B	rs34311235	CC

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

Your Recommendations

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

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

		DOSAGE
1	Reduce Inner Ear Disturbance	
2	Ginger	500 mg
3	Breathing Techniques	10 minutes
4	Diaphragmatic Breathing	10 minutes
5	Acupressure	1 minute
6	Aromatherapy	30 minutes
7	Autogenic Training	10 minutes
8	Deep Breathing	5 minutes
9	Music Therapy	30 minutes

1

Reduce Inner Ear Disturbance

IMPACT 3 / 5

EVIDENCE 3 / 5

Description

A disconnect between what your inner ear senses and what your eyes see may cause nausea, vomiting, and a headache The inner ear contains structures called the semicircular canals, which detect motion and changes in position. When these signals don't match the visual cues received by your eyes, it can confuse the brain and lead to symptoms of motion sickness.

Common situations that might disturb the inner ear and cause motion sickness:

- Reading while moving
- Rough seas or turbulent air
- Virtual reality and simulators
- Car rides (especially winding roads or hilly terrains)

Reducing the mismatch between ear and eye information may help alleviate any symptoms.

How it helps

Experts recommend some general behavioral strategies to manage motion sickness, such as [R]:

- Focusing on the horizon
- Minimizing head movements
- Controlling breathing
- Lying down with eyes closed
- Reducing other sources of physical, mental, and emotional discomfort.

2

Ginger

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Take a 500 mg ginger supplement daily, preferably with a meal to enhance absorption and minimize potential stomach discomfort.

TYPICAL STARTING DOSE

500 mg

Description

Ginger is a versatile spice known for its potential anti-inflammatory and digestive benefits. It may help alleviate nausea, reduce muscle soreness, and support gastrointestinal comfort when consumed as part of a balanced diet.

Ginger root is a cooking spice and a traditional remedy. People mostly use it to relieve [R]:

- Nausea
- Menstrual cramps
- Joint pain

How it helps

A systematic review and meta-analysis found that ginger may improve symptoms of nausea related to motion sickness, though the evidence was not strong enough to conclusively recommend ginger over conventional antiemetics [R].

Ginger reduced nausea, tachygastria, and plasma vasopressin levels induced by circular vection, suggesting it may prevent and manage motion sickness [R].

However, a clinical study comparing ginger with various anti-motion sickness drugs found that ginger was at the placebo level for efficacy, indicating it may not be as effective as some traditional medications like scopolamine or dimenhydrinate [R].

Another study investigating ginger's effect on gastric function and motion sickness susceptibility concluded that ginger did not provide protection against motion sickness and had no impact on gastric function during motion sickness [R].

3

Breathing Techniques

IMPACT 2 / 5

EVIDENCE 2 / 5

How to implement

Practice deep breathing exercises for 10 minutes daily, preferably in a quiet space where you won't be disturbed. Sit or lie down in a comfortable position, slowly inhale through your nose, allowing your chest and lower belly to rise, hold the breath for a moment, and then exhale slowly through your mouth or nose. This can be done at any time of day to reduce stress and improve focus.

TYPICAL STARTING DOSE

10 minutes

Description

Breath awareness and specific breathing techniques, such as deep breathing or mindfulness-based practices, can help reduce stress, improve focus, and enhance overall mental well-being. These techniques are valuable tools for managing anxiety and promoting relaxation.

Most breathing techniques involve taking slow and even breaths. Their main goal is to prevent rapid breathing (**hyperventilation**) [R].

Breathing techniques tend to help with [R, R, R]:

- Stress
- Anxiety
- Sleep problems
- Asthma

One example is the **Buteyko breathing technique**. It's often used by people with asthma or other conditions that affect the lungs [R].

Another example is **yogic breathing**. **Yoga** is a practice that combines breathing techniques with exercise and meditation [R, R].

How it helps

Controlled breathing was found to prolong the time people may tolerate nausea induced by motion and shorten the recovery time after motion exposure, suggesting that it may help control nausea during motion sickness [R].

Diaphragmatic breathing in a motion sickness-inducing environment showed that people trained in slow breathing had increased heart rate variability and reported feeling less motion sick compared to those breathing at a normal pace [R].

Both controlling breathing and listening to music were shown to provide protection against motion sickness, though they were only half as effective as standard anti-motion sickness drugs like scopolamine, in a study. Nonetheless, these nonpharmacological methods are easy to implement and free of side effects [R].

4

Diaphragmatic Breathing

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Practice diaphragmatic breathing for 10-15 minutes per day. Sit or lie down in a comfortable position, place one hand on your chest and the other on your belly. Breathe in slowly through your nose, ensuring your belly moves out more than your chest. Exhale slowly through your mouth or nose, consciously relaxing the belly. Repeat this process, focusing on the movement of your belly rather than your chest.

TYPICAL STARTING DOSE

10 minutes

Description

Diaphragmatic breathing, also known as deep breathing, can help reduce stress and anxiety by activating the body's relaxation response. It promotes better oxygen exchange, reduces muscle tension, and supports overall mental and physical well-being.

How it helps

In 2 non-placebo-controlled trials of 103 individuals susceptible to motion sickness, diaphragmatic breathing training reduced motion sickness in response to an inducing virtual reality experience [R, R].

5

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

Acupressure at the P6 (Neiguan) point may reduce symptoms of motion sickness and abnormal gastric activity in a controlled study [R].

Another study found that acupressure bands worn on the wrist decreased the symptoms of motion sickness and related gastric activity more effectively than control conditions [R].

However, a study found that acupressure did not protect against motion sickness for either high or low-susceptible people [R].

6

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

A simulator experiment on preventing motion sickness showed that the fragrances of peppermint, ginger, and combinations of ginger with lavender helped prevent symptoms, suggesting that certain aromas may help more than others [R].

7

Autogenic Training

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

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

TYPICAL STARTING DOSE

10 minutes

Description

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

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

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

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

How it helps

Autogenic training reduced motion sickness in 2 non-placebo-controlled trials of 51 men. In one of them, it was more effective than promethazine. However, one study found no beneficial effects of autogenic training [R, R, R].

8

Deep Breathing

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Practice deep breathing exercises for 5-10 minutes at least twice a day, ideally in the morning and before bed. Sit or lie down in a comfortable position, slowly inhale through your nose, allowing your chest and lower belly to rise, hold the breath for a moment, and then exhale slowly through your mouth or nose.

TYPICAL STARTING DOSE

5 minutes

Description

Deep breathing techniques, such as diaphragmatic or abdominal breathing, can promote relaxation, reduce stress, and improve lung capacity. Regular deep breathing exercises can contribute to overall mental and physical well-being by reducing tension and increasing oxygen supply to the body.

How it helps

In a non-placebo-controlled trial of 46 healthy volunteers, practicing slow deep breathing prevented the development of gastric dysrhythmias and decreased symptoms of motion sickness [R].

9

Music Therapy

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

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

TYPICAL STARTING DOSE

30 minutes

Description

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

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

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

How it helps

In a non-placebo-controlled trial of 93 volunteers, listening to pleasant music while watching a 14-minute-long video taken during a bicycle ride reduced motion sickness [R].

Music therapy can provide a strong diversion from the sensations of motion sickness. Additionally, relaxing music can lessen anxiety and stress related to motion sickness.