

Cold Hands and Feet (Raynaud's)

DNA Health Report

REPORT CATEGORY —



HEART & BLOOD
VESSELS

Sample Client

Report date: 15 January 2026

Powered by

omicsedge

Table of Contents

03 How this works

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

07 Introduction

08 Your genetics

10 Your recommendations

36 Next Steps

- 36 Your Lab Results

DISCLAIMER

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

Personal information

NAME

Sample Client

SEX AT BIRTH

Male

HEIGHT

5ft 5" 165cm

WEIGHT

137lb 62kg



How this works

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



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



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

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



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

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

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



Genotype color info:

AA

You don't have any risk alleles

AA

You have 1 risk allele

AA

You have 2 risk alleles

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

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

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

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



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

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



Impact

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

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

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

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

Recommendation Evidence

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

Genotype-specific Evidence

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

Some things to keep in mind:

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

Introduction

Raynaud's is a rare disorder of the blood vessels. It causes the blood vessels to narrow when you are cold or feeling stressed, usually affecting the fingers and toes.

When this happens, blood can't get to the surface of the skin and the affected areas turn white and blue. In severe cases, the loss of blood flow can cause sores or tissue damage.

The disorder affects 3-5% of the population and comes in two types [\[R\]](#):

- **Primary Reynaud’s** is far more common (80-90% of cases) and generally has milder symptoms.
- **Secondary Reynaud’s** is rare, more severe, and caused by another underlying condition.

Common signs and symptoms of Raynaud's include:

- Cold fingers or toes
- Skin color changes
- Numbness, prickling, tingling, or pain upon warming or stress relief

Risk Factors and Genetics

Key Takeaways:

- About **55-65%** of the differences in developing Raynaud's may be due to genetics.
- Other risk factors include smoking, injury, certain medicines or chemical exposure, and prolonged repetitive motions.
- Raynaud's affects 3-5% people worldwide, so even if your genetic risk is high, the overall risk is relatively low.
- Click the **Recommendations** tab for potential dietary and lifestyle changes.

Raynaud's is a rare disorder of the blood vessels. It causes the blood vessels to narrow when you are cold or feeling stressed, and usually affects the fingers and toes.

About **55-65%** of the differences in developing Raynaud's may be due to genetics [\[R\]](#).

Risk factors for secondary Raynaud's include [\[R\]](#):

- Autoimmune diseases (scleroderma, lupus, rheumatoid arthritis)
- Issues with blood vessels
- Exposure to certain medicines or chemicals
- Smoking
- Age (over 30)
- Injury or trauma
- Prolonged repetitive motions

If you experience symptoms, talk to your healthcare professional about possible actions to take.



TYPICAL LIKELIHOOD

Typical likelihood of having Raynaud's based on 996,273 genetic variants we looked at



Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
KIAA1217	rs7069430	AA
/	rs140991804	CC
/	rs570208750	GG
CCDC3	rs138336556	CT
PRKCQ	rs137870441	AG
NEBL	rs190575139	CC
FAM171A1	rs143100064	CC
PRPF18	rs57572383	AA
/	rs140673014	AA
MALRD1	rs146119830	CC
SKIDA1	rs141961273	TT
PRKCQ	rs112942698	GG
KIAA1217	rs182841690	AA
KIAA1217	rs146561629	GG
KLF6	rs185109474	AA
SFMBT2	rs78967739	TT
KIAA1217	rs145536431	GG
TUBAL3	rs143549736	CC
PLXDC2	rs112408375	CC
MCM10	rs117278045	CC
ADARB2	rs117804762	GG
PRPF18	rs141694090	AA
CELF2	rs147411784	GG
NSUN6	rs80162025	AA

GENE	SNP	GENOTYPE
PLXDC2	rs11599807	TT
NSUN6	rs79253631	AA
ADARB2	rs142207383	CC
SPAG6	rs1170547	GG
PFKP	rs77345563	CC
/	rs56372212	AA
STAM	rs11254703	GG
COMMD3-BMI1	rs7099367	CC
AKR1E2	rs114725652	GG
/	rs117036760	AA
PIP4K2A	rs11013083	AA
AKR1E2	rs143293957	CC
ADARB2	rs112448126	GG
KIAA1217	rs183347830	GG
CELF2	rs144272580	TT
CALML5	rs117143307	GG
ITGA8	rs140551139	CC
MALRD1	rs183014160	TT
ADARB2	rs72772247	TT
CAMK1D	rs139224231	AA
MALRD1	rs192852937	CC
ITGA8	rs145054943	AA
PRKCQ	rs117533148	TT
/	rs369714188	CC
MALRD1	rs150972735	GG
PLXDC2	rs77930811	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		DOSAGE	
1	Reduce Hand Strain	2	Avoid Cold Exposure
3	Relaxation Techniques30 minutes	4	Exercise At Least One Hour a Day1 hour
5	Progressive Muscle Relaxation10 minutes	6	Yoga30 minutes
7	Aerobic Exercise (Cardio)1 hour	8	Strength Training1 hour
9	Acupuncture1 hour	10	Apply Heat15 minutes
11	Autogenic Training10 minutes	12	Meditation30 minutes
13	Low-Level Laser Therapy (LLLT)30 seconds	14	Biofeedback
15	Breathing Techniques10 minutes	16	Maintain Optimal Vitamin D Levels1000 iu
17	Beetroot	18	Beetroot Juice
19	Pycnogenol100 mg	20	Rosemary400 mg
21	Evening Primrose Oil	22	Omega-3 (Fish Oil)500 mg
23	Ginkgo120 mg	24	Vitamin B12100 mcg
25	Alpha-Lipoic Acid600 mg		

1



Reduce Hand Strain

IMPACT

5 / 5

EVIDENCE

4 / 5

How to implement

Take regular breaks from activities that strain your hands, ideally resting your hands for at least 5-10 minutes after every hour of continuous use. During breaks, gently stretch your fingers, palms, and wrists. Consider ergonomic devices or adjust your grip to reduce pressure on your hands during tasks.

Description

A hand strain is an injury that happens when the muscles and tendons in your hand, wrist, or forearm become strained or overloaded. Reducing hand strain often involves ergonomic adjustments and proper hand positioning during tasks. This can help prevent conditions like carpal tunnel syndrome and repetitive strain injuries.

A hand strain is an injury that happens when the muscles and tendons in your hand, wrist, or forearm become strained or overloaded. This can happen when you use your hand too much or in the wrong way [\[R\]](#).

Hand strains may occur from sport injuries or repetitive tasks, such as [\[R\]](#):

- Typing
- Playing an instrument

Hand strains may cause [\[R\]](#):

- Uncomfortable tingling or numbness
- Pain
- Swelling
- Stiffness

How it helps

Activities that increase hand strain may raise the risk of Raynaud's by **165%**. If hand-arm **vibration** is involved the risk may raise by up to **700%** [\[R\]](#), [\[R\]](#).

Risky activities include [\[R\]](#), [\[R\]](#):

- **Using vibrating machines (e.g., jackhammers)**
- Typing
- Playing piano

Hand, wrist, or feet **injuries** may also increase the risk of Raynaud’s syndrome [\[R\]](#).

Hand strain and injuries may damage the blood vessels and nerves [\[R\]](#).

Follow these tips to reduce the risk of a hand strain [\[R\]](#):

- Warm up before intense or repetitive activities
- Avoid fatigue
- Stretch



PERSONALIZED TO YOUR GENES

Hand strain (vibration) may have a stronger impact on Raynaud’s development in people with your [HTR1B](#) gene variant [\[R\]](#).

YOUR GENETIC VARIANTS

GENE	SNP	GENOTYPE	EVIDENCE
HTR1B	rs6298	AG	

2



Avoid Cold Exposure

IMPACT

4 / 5

EVIDENCE

4 / 5

How to implement

Minimize your time outdoors during cold weather. When you must go out, wear appropriate clothing such as insulated jackets, hats, gloves, and waterproof boots to protect against the cold. It's especially important to keep your extremities covered to prevent frostbite. Aim to limit outdoor exposure on very cold days and try to stay indoors, where it's warm, as much as possible.

Description

Avoiding prolonged exposure to extreme cold temperatures is essential for preventing cold-related health issues like fatigue, hypothermia, and slower body functions. Cold exposure may be risky for people with respiratory conditions like asthma and those with blood vessel problems.

Cold exposure occurs when the body is exposed to lower-than-normal temperatures for a prolonged period of time. It can happen when someone is immersed in cold water or outdoors without proper clothing or shelter [\[R\]](#).

Cold exposure may cause the body's core temperature to drop, which results in shivering and muscle stiffness. Prolonged or extreme cold exposure may lead to [\[R, R\]](#):

- Slower body functions
- Fatigue
- Confusion
- Hypothermia

Cold exposure may be risky for people with respiratory conditions like asthma and those with blood vessel problems [\[R\]](#).

How it helps

Raynaud’s attacks are usually caused by **cold temperatures**. Indeed, the condition is more common in people who live in colder climates. People can get exposed to cold by [\[R\]](#):

- Putting their hands in cold water
- Taking something from a freezer
- Being in cold air
- Letting sweat cool on their skin

Exposure to a cold environment at work is associated with a **2.2 times** higher risk of Raynaud’s. Similarly, a history of cold injury may increase the risk **4 times** [\[R, R\]](#).

Wearing cotton gloves (at least 10 h/day for 6 weeks) may improve Raynaud's symptoms [\[R\]](#).

Some other tips for lowering exposure to cold include [\[R, R\]](#):

- Try to avoid going from hot to cold quickly (e.g., from hot outdoors to air conditioning)
- When it's cold outside, wear a hat, scarf, socks, boots, earmuffs, and/or a face mask
- Consider wearing thermal underwear
- Make sure your coat has cuffs around your gloves
- Wear socks and sleeves in bed during winter
- Wear gloves, mittens, or oven mitts to take food out of the refrigerator or freezer
- Set your air conditioner to a slightly higher temperature.
- Use cups that don't make your hands cold
- Run your car heater before driving in the cold
- Use exercise gear that keeps moisture away from your skin
- Make sure your hair and skin are dry before leaving the gym
- Keep your office or surroundings warm

- Take frequent breaks to rub hands together

3



Relaxation Techniques

IMPACT

3 / 5

EVIDENCE

3 / 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 may increase the risk of Raynaud's by **70-140%**. Studied stressful conditions include [\[R\]](#):

- Highly repetitive works
- Psychologically demanding jobs with low support

Stress and anxiety, even without temperature changes, are associated with more frequent Raynaud’s attacks [\[R, R, R, R\]](#).

In line with this, experts recommend relieving stress by practicing relaxation techniques like yoga, meditation, and breathing exercises [\[R, R\]](#).

The following relaxation techniques may help with Raynaud’s by reducing the frequency and severity of attacks [\[R, R\]](#):

- Autogenic training
- Progressive muscle relaxation

However, the evidence to support their benefits is weak [\[R, R\]](#).

4

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

Exercise may help with Raynaud’s in people with systemic sclerosis by [\[R, R, R\]](#):

- Reducing pain
- Reducing the progression of digital ulcers
- Improving the quality of life

Useful exercise modalities include [\[R, R, R\]](#):

- Moderate-intensity cardio exercise (for 8 weeks)
- High-intensity interval training (HIIT) (2x/week for 12 weeks)
- Arm cranking (2x/week for 12 weeks)
- Cardio + strength training (2x/week for 12 weeks)

Exercise may help by increasing blood flow and improving blood vessel function [\[R, R\]](#)

Please note: *If you have secondary Raynaud's, talk to your healthcare provider before exercising outdoors in the cold* [\[R\]](#).

5

Progressive Muscle Relaxation

IMPACT2 / 5

EVIDENCE2 / 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

Stress may increase the risk of Raynaud's by **70-140%**. Studied stressful conditions include [R](#):

- Highly repetitive works
- Psychologically demanding jobs with low support

Stress and anxiety, even without temperature changes, are associated with more frequent Raynaud’s attacks [R](#), [R](#), [R](#), [R](#).

In line with this, experts recommend relieving stress by practicing relaxation techniques like yoga, meditation, and breathing exercises [R](#), [R](#).

The following relaxation techniques may help with Raynaud’s by reducing the frequency and severity of attacks [R](#), [R](#):

- Autogenic training
- Progressive muscle relaxation

However, the evidence to support their benefits is weak [R](#), [R](#).

6



Yoga

IMPACT

2 / 5

EVIDENCE

2 / 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

Stress may increase the risk of Raynaud's by **70-140%**. Studied stressful conditions include [\[R\]](#):

- Highly repetitive works
- Psychologically demanding jobs with low support

Stress and anxiety, even without temperature changes, are associated with more frequent Raynaud’s attacks [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

In line with this, experts recommend relieving stress by practicing relaxation techniques like yoga, meditation, and breathing exercises [\[R\]](#), [\[R\]](#).

The following relaxation techniques may help with Raynaud’s by reducing the frequency and severity of attacks [\[R\]](#), [\[R\]](#):

- Autogenic training
- Progressive muscle relaxation

However, the evidence to support their benefits is weak [\[R\]](#), [\[R\]](#).

7



Aerobic Exercise (Cardio)

IMPACT2 / 5

EVIDENCE2 / 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

Exercise may help with Raynaud’s in people with systemic sclerosis by [\[R, R, R\]](#):

- Reducing pain
- Reducing the progression of digital ulcers
- Improving the quality of life

Useful exercise modalities include [\[R, R, R\]](#):

- Moderate-intensity cardio exercise (for 8 weeks)
- High-intensity interval training (HIIT) (2x/week for 12 weeks)
- Arm cranking (2x/week for 12 weeks)
- Cardio + strength training (2x/week for 12 weeks)

Exercise may help by increasing blood flow and improving blood vessel function [\[R, R\]](#)

Please note: *If you have secondary Raynaud's, talk to your healthcare provider before exercising outdoors in the cold* [\[R\]](#).



9



Acupuncture

IMPACT

2 / 5

EVIDENCE

2 / 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

Acupuncture (at least 7 sessions) may help with Raynaud’s by reducing [\[R\]](#), [\[R\]](#):

- The number of daily attacks
- Pain

However, more high-quality studies are needed to confirm these benefits [\[R\]](#).

Studied types include [\[R\]](#), [\[R\]](#):

- Manual acupuncture, alone or with moxibustion
- Electroacupuncture

Acupuncture may help by improving blood flow [\[R\]](#).

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* [\[R\]](#).

10



Apply Heat

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

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

TYPICAL STARTING DOSE

15 minutes

Description

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

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

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

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

How it helps

Different types of heat treatments, such as hot packs and paraffin baths, have been found effective in increasing skin temperature in people with Raynaud's Syndrome. Specifically, hot packs have shown significant benefits in treating hypothermia associated with this condition [\[R\]](#).

Continuous heating of the arm near the elbow has shown effectiveness in reducing the severity and frequency of Raynaud's phenomenon in systemic sclerosis, supporting the use of localized heat application as a beneficial intervention [\[R\]](#).

11



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

Stress may increase the risk of Raynaud's by **70-140%**. Studied stressful conditions include [\[R\]](#):

- Highly repetitive works
- Psychologically demanding jobs with low support

Stress and anxiety, even without temperature changes, are associated with more frequent Raynaud’s attacks [\[R, R, R, R\]](#).

In line with this, experts recommend relieving stress by practicing relaxation techniques like yoga, meditation, and breathing exercises [\[R, R\]](#).

The following relaxation techniques may help with Raynaud’s by reducing the frequency and severity of attacks [\[R, R\]](#):

- Autogenic training
- Progressive muscle relaxation

However, the evidence to support their benefits is weak [\[R, R\]](#).

12



Meditation

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

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

TYPICAL STARTING DOSE

30 minutes

Description

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

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

- Mindfulness
- Focused
- Transcendental
- Mantra
- Moving

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

- Stress and anxiety
- Mood
- Sleep disturbances
- Pain

How it helps

Stress may increase the risk of Raynaud's by **70-140%**. Studied stressful conditions include [\[R\]](#):

- Highly repetitive works
- Psychologically demanding jobs with low support

Stress and anxiety, even without temperature changes, are associated with more frequent Raynaud’s attacks [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

In line with this, experts recommend relieving stress by practicing relaxation techniques like yoga, meditation, and breathing exercises [\[R\]](#), [\[R\]](#).

The following relaxation techniques may help with Raynaud’s by reducing the frequency and severity of attacks [\[R\]](#), [\[R\]](#):

- Autogenic training
- Progressive muscle relaxation

However, the evidence to support their benefits is weak [\[R\]](#), [\[R\]](#).

13



Low-Level Laser Therapy (LLLT)

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

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

TYPICAL STARTING DOSE

30 seconds

Description

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

How it helps

Low-level laser therapy (30-40 min, 2-5x/week for 3-5 weeks) may reduce the frequency and severity of Raynaud's attacks [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

14



Biofeedback

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

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

Description

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

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

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

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

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

How it helps

Biofeedback (3x/week for 4 weeks) may help with Raynaud's by [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Reducing attacks
- Increasing hand warming
- Improving finger temperature control

Biofeedback for Raynaud's may include guided imagery to raise the temperature of hands and feet, deep breathing, and relaxation exercises [\[R\]](#).

Temperature biofeedback may offer the greatest benefits [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

15



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

Stress may increase the risk of Raynaud's by **70-140%**. Studied stressful conditions include [\[R\]](#):

- Highly repetitive works
- Psychologically demanding jobs with low support

Stress and anxiety, even without temperature changes, are associated with more frequent Raynaud’s attacks [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

In line with this, experts recommend relieving stress by practicing relaxation techniques like yoga, meditation, and breathing exercises [\[R\]](#), [\[R\]](#).

The following relaxation techniques may help with Raynaud’s by reducing the frequency and severity of attacks [\[R\]](#), [\[R\]](#):

- Autogenic training
- Progressive muscle relaxation

However, the evidence to support their benefits is weak [\[R\]](#), [\[R\]](#).

16



Maintain Optimal Vitamin D Levels

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

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

TYPICAL STARTING DOSE

1000 iu

Description

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

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

- Mood
- Immunity
- Heart health
- Blood sugar control

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

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

How it helps

People with Raynaud’s may have lower vitamin D levels [\[R\]](#), [\[R\]](#).

In line with this, one study suggests that supplementation with vitamin D may improve its levels and Raynaud’s symptoms. Vitamin D may help by [\[R\]](#):

- Reducing inflammation
- Improving blood vessel health

Please note: *Experts recommend getting 600-800 IU of vitamin D per day. Medical bodies recommend against taking more than 4,000 IU per day* [\[R\]](#).

17



Beetroot

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate beetroot into your diet by eating it raw in salads or drinking beetroot juice. Aim for a serving of about one small beetroot or 200-250 ml of beetroot juice daily. You can maintain this dietary practice consistently as part of your regular diet.

Description

Beetroot is a vegetable rich in dietary nitrates, which may help improve cardiovascular health and exercise performance.

How it helps

Beets contain high levels of nitrate that your body converts to nitric oxide, a molecule that aids in blood vessel dilation. This may improve circulation, helping to reduce the severity of cold-induced constriction in Raynaud's disease.

18



Beetroot Juice

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Consume 200-250ml of beetroot juice daily, at least 1-2 hours before engaging in physical activity or as part of your breakfast routine. This regimen should be maintained consistently for at least 2 weeks to start noticing benefits in terms of increased stamina and blood pressure regulation.

Description

Beetroot juice is a concentrated source of dietary nitrates, known for their potential to enhance athletic performance and improve blood pressure regulation. It is often consumed by athletes to enhance stamina and aid in recovery.

Beetroot (*Beta vulgaris*) contains iron, nitrates, sodium, potassium, and betalaine [\[R\]](#).

Beets are an inexpensive and mineral-rich vegetable that are widely used in Western cooking. Compared to other vegetables with high iron content, beets have a low price and are easy to store [\[R\]](#).

How it helps

Based on a single study, drinking beetroot juice (140 mL/day for 14 days) may help with Raynaud’s by [\[R\]](#):

- Improving blood vessel function
- Increasing finger blood flow
- Reducing blood pressure
- Decreasing inflammation

19



Pycnogenol

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 100 mg of pycnogenol supplement daily. This can be taken in a single dose or divided into two doses of 50 mg each, one in the morning and one in the evening.

TYPICAL STARTING DOSE
100 mg

Description

Pycnogenol (pine bark extract) is derived from the bark of the maritime pine (Pinus pinaster). It has been used in traditional n European folk medicine for centuries, and more recently as a supplement. The extract contains a group of bioactive compounds known as proanthocyanidins, which may be beneficial in supporting cardiovascular health, promoting skin health, and aiding in the management of various conditions related to inflammation and oxidative stress.

Pycnogenol comes from the bark of pine trees that grow in the Mediterranean [\[R\]](#), [\[R\]](#).

It may improve [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Athletic performance
- Seasonal allergies
- Cognitive function
- Joint health
- Varicose veins

How it helps

According to one study, supplementation with pycnogenol (100 mg/day for 4 weeks) in combination with standard therapy may help people with Raynaud’s by [\[R\]](#):

- Increasing finger blood flow
- Decreasing [oxidative stress](#)

20



Rosemary

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take rosemary in supplement form, such as capsules, with a typical dose ranging from 400 to 600 milligrams once daily. It is best taken with food to improve absorption and reduce the risk of stomach irritation. Consult with a healthcare professional before starting, especially if pregnant, nursing, or on medication.

TYPICAL STARTING DOSE

400 mg

Description

Rosemary is a fragrant herb native to the Mediterranean region. It's a source of nutrients such as vitamin C, vitamin A, and dietary fiber. It contains antioxidants and compounds that may support digestion, improve memory, and have anti-inflammatory properties.

How it helps

Rosemary supplement may help improve blood circulation, which is often compromised in Raynaud's disease. It has anti-inflammatory and antioxidant properties that could potentially reduce inflammation and oxidative stress related to this condition.

In an open-label pilot study with 12 patients with progressive systemic sclerosis and secondary Raynaud's phenomenon, a single application of topical 10% Rosmarinus officinalis L.essential oil **increased skin temperature as much as control and improved self-reported warmth perception** unlike after olive oil [\[R\]](#).

21



Evening Primrose Oil

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 500mg to 1000mg of evening primrose oil, in capsule form, once daily with a meal to ensure optimal absorption. This regimen is typically recommended for several months to evaluate its effectiveness for the specific condition being addressed.

Description

Evening primrose is a plant known for its seeds, which are a source of gamma-linolenic acid (GLA), an essential fatty acid. Some studies suggest that evening primrose oil, derived from these seeds, may help alleviate symptoms of conditions like premenstrual syndrome (PMS) and eczema, as well as support overall skin health.

Evening primrose (*Oenothera biennis*) is a flowering plant. Its name comes from the fact that its flowers close during the day and open when the sun sets [R].

[Evening primrose oil](#) comes from the plant’s seeds. It is rich in omega-6 fatty acids like [GLA](#). People use this oil to help with high triglycerides [R, R].

How it helps

In a placebo-controlled trial of 21 patients with Raynaud’s phenomenon, supplementation with evening primrose oil (12 capsules/day) for 8 weeks reduced the number and severity of attacks, as well as hand coldness [R].

Evening primrose contains GLA, which improves blood flow.

22



Omega-3 (Fish Oil)

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 1-2 g of omega-3 (fish oil) supplement daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

500 mg

Description

Omega-3 fatty acids are essential fats found in fatty fish like salmon, flaxseeds, and walnuts. They are known for their potential cardiovascular and brain health benefits, including reducing the risk of heart disease and supporting cognitive function.

[Omega-3 fatty acids](#) are some of the healthiest fats we can eat. They help lower inflammation and protect the heart, brain, and eyes. Our bodies produce less omega-3s than we need for optimal health, so it's important to get enough through food or supplements [\[R\]](#), [\[R\]](#), [\[R\]](#).

There are three major types of omega-3s: ALA, EPA, and DHA [\[R\]](#), [\[R\]](#).

Fatty fish are rich in EPA and DHA. They include [\[R\]](#):

- Salmon
- Tuna
- Herring
- Sardines

For optimal protection, try to get at least **two servings of fatty fish per week**. Fish oil supplements are available for those who don't eat fish regularly [\[R\]](#).

How it helps

According to one study, supplementation with fish oil (1.8 g/day EPA and 2.64 g/day DHA for 17 weeks) may improve tolerance to cold exposure and reduce Raynaud's attacks. Fish oil supplements may help by improving blood flow [\[R\]](#), [\[R\]](#).

Please note: *Omega-3s can interact with blood thinners (like aspirin, Plavix, Coumadin). Consult your doctor before taking omega-3s* [\[R\]](#).

23



Ginkgo

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 120 mg of Ginkgo supplement daily, preferably with meals to aid absorption. This dosage is typically split into two 60 mg doses taken in the morning and evening for best results.

TYPICAL STARTING DOSE

120 mg

Description

[Ginkgo](#) (*Ginkgo biloba*) is an ancient tree used in traditional Chinese medicine [\[R\]](#), [\[R\]](#).

According to limited evidence, ginkgo leaf extract may help with [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Anxiety
- Dementia
- Eye problems
- Blood vessel problems
- Vitiligo

How it helps

Supplementation with ginkgo extract (120-240 mg/day for 8-10 weeks) may reduce the number of Raynaud’s attacks by **30-55%**. Ginkgo may help by [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Fighting [oxidative stress](#)
- Improving blood flow

However, not all studies found this benefit [\[R\]](#).

Please note: Do not consume ginkgo seeds or unprocessed ginkgo leaves. They are poisonous. Epileptics and those prone to seizures should avoid ginkgo seeds and, to a lesser extent, ginkgo leaves. Consult your doctor before taking ginkgo supplements [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

24



Vitamin B12

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a 50 mcg vitamin B12 supplement daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

100 mcg

Description

Vitamin B12 is a water-soluble vitamin primarily found in animal-based foods like meat, fish, and dairy products. It plays a crucial role in maintaining healthy nerve cells, DNA synthesis, and red blood cell formation. Vitamin B12 deficiency can lead to anemia, neurological issues, and fatigue.

[Vitamin B12](#) is important for [\[R\]](#), [\[R\]](#):

- Building DNA
- Nervous system function
- Energy production

You can get vitamin B12 from [\[R\]](#):

- Animal products (meat, fish, eggs, and dairy)
- Fortified foods
- Supplements

Adults should be getting **2.4 micrograms** of vitamin B12 every day [\[R\]](#).

How it helps

Vitamin B12 is crucial for nerve health and proper circulatory function. Deficiencies can lead to peripheral neuropathy, which may result in cold hands and feet. Supplementing with Vitamin B12 can help mitigate these effects.

25



Alpha-Lipoic Acid

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

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

TYPICAL STARTING DOSE

600 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 is a powerful antioxidant that can help improve endothelial function of the blood vessels, enhancing blood flow. Improved blood flow can help alleviate cold hands and feet by ensuring that blood is more efficiently distributed throughout the body.

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 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.