

# Pressure Ulcers

## DNA Health Report

REPORT CATEGORY —



INJURIES

Sample Client

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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

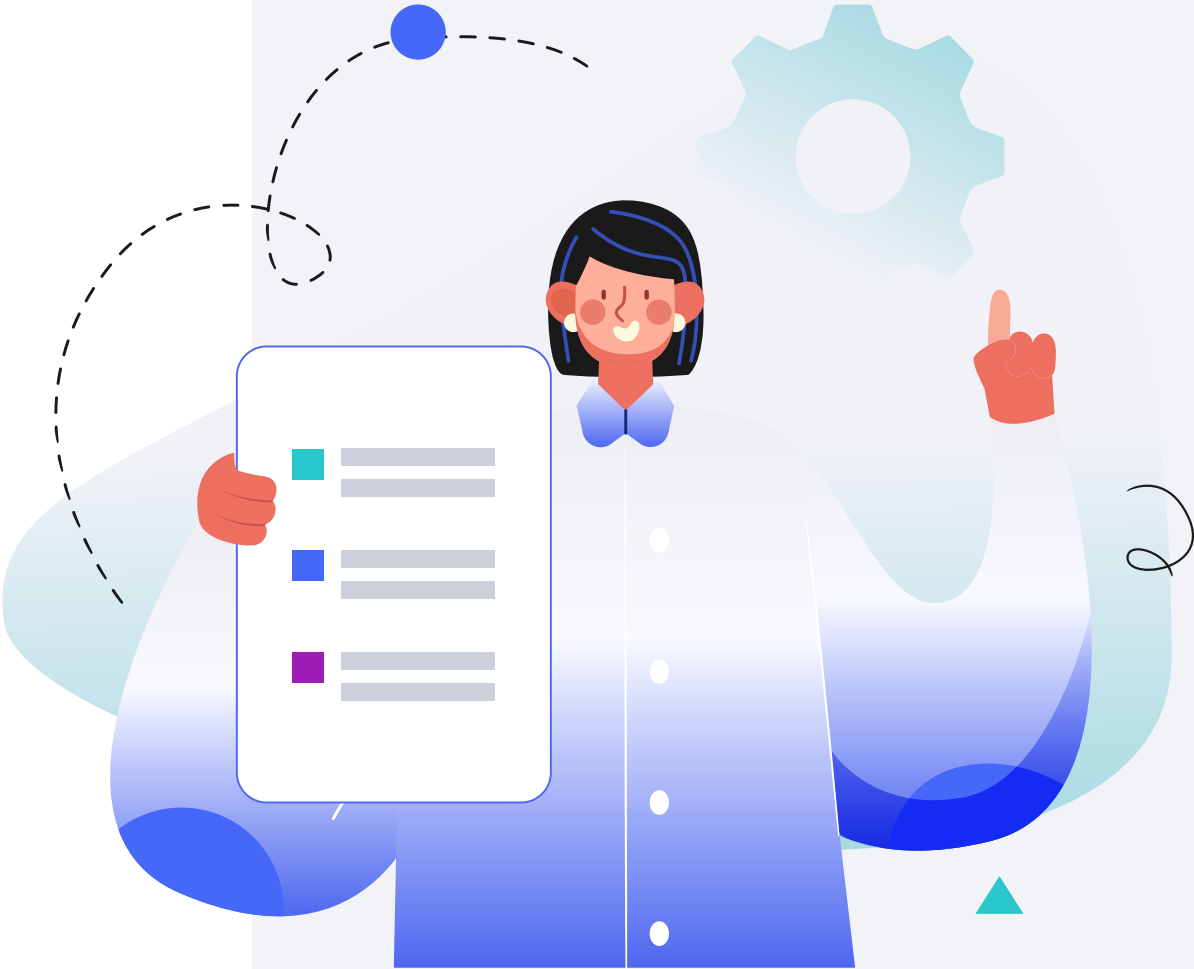
Male

HEIGHT

5ft 5" 165cm

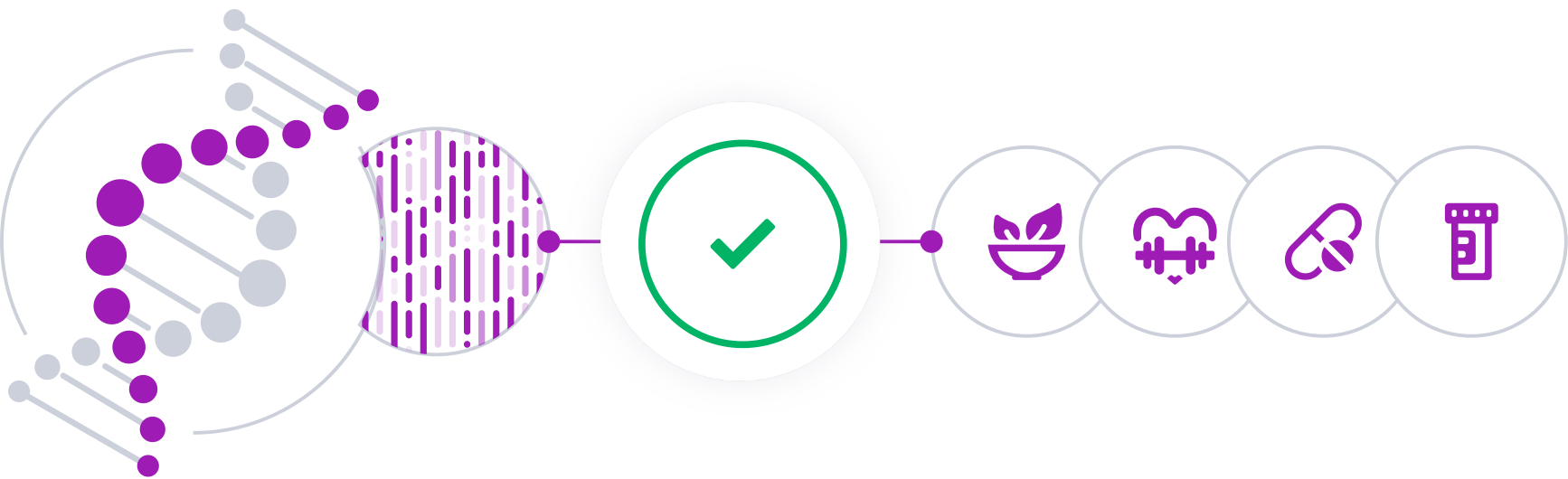
WEIGHT

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.

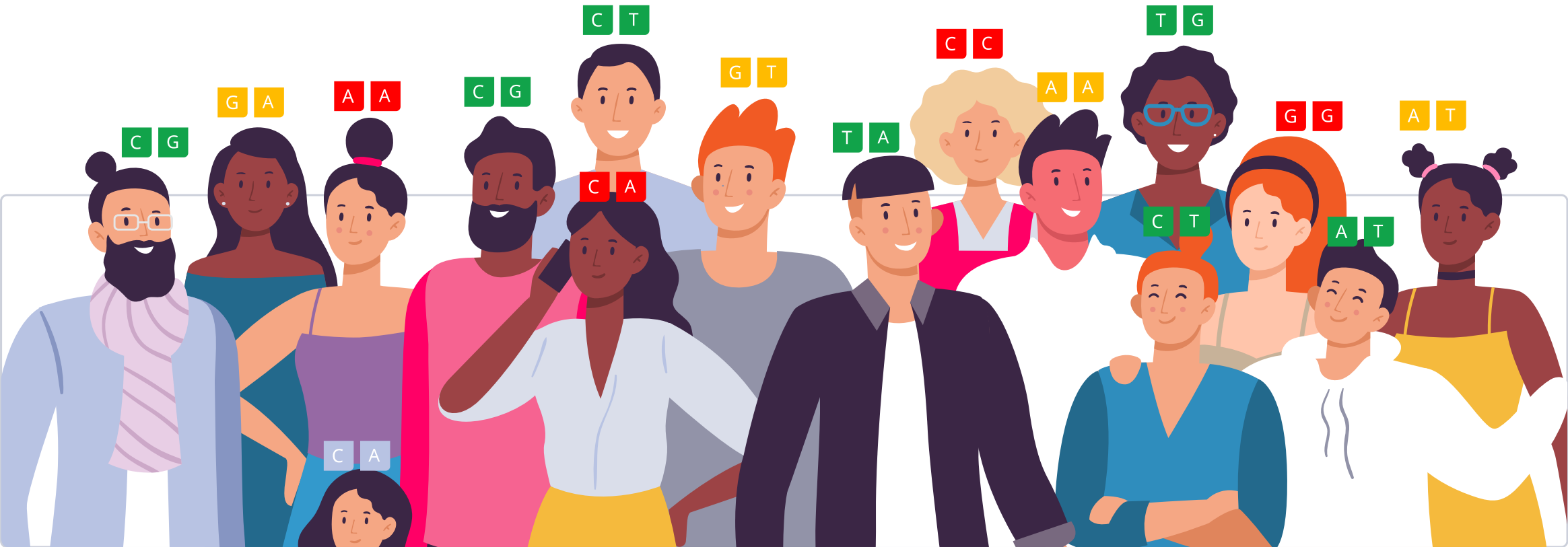


Similarly, our Trait Reports look at how your DNA influences your traits.



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

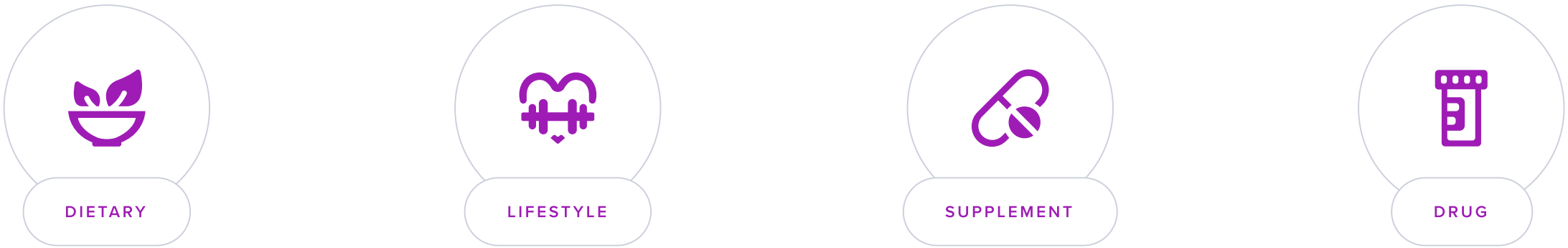
You have 2 risk alleles

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

Pressure ulcers, also known as bedsores or decubitus ulcers, are injuries to the skin and underlying tissue, primarily caused by prolonged pressure on the skin. They often develop on skin that covers bony areas of the body, such as the heels, ankles, hips, and tailbone.

People most at risk of pressure ulcers are those with a medical condition that limits their ability to change positions or those who spend most of their time in a bed or chair. Pressure ulcers can cause serious infections, some of which might be life-threatening if not properly managed and treated.

# Treatment and Prevention

The development of pressure ulcers occurs in four stages, ranging from reddened skin that goes away after pressure is relieved to severe tissue damage that extends through muscle to bone. Complications from pressure ulcers can include cellulitis, bone and joint infections, cancer, and sepsis.

Preventive measures include frequent repositioning, skincare, and the use of support surfaces like mattresses, beds, and cushions specifically designed to reduce the risk of pressure sores. Effective management involves meticulous wound care, a holistic approach to health, nutritional support, and, in some cases, surgery to repair the damage.



MORE LIKELY

More likely to have pressure ulcers based on 2,463 genetic variants we looked at





# 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      | Extra Virgin Olive Oil (EVOO) | 2      | Topical Aloe Vera   |
| 3      | Collagen Peptides10 g         | 4      | Zinc15 mg           |
| 5      | Topical Coconut Oil           | 6      | Zinc and Folate     |
| 7      | Good Posture                  | 8      | Compression Therapy |
| 9      | Dietary Vitamin C             | 10     | Dietary Vitamin A   |
| 11     | Omega-3 (Fish Oil)2000 mg     | 12     | Dietary Zinc        |
| 13     | Vitamin C2000 mg              | 14     | Vegetables          |
| 15     | Vitamin D and Calcium         | 16     | Topical Honey       |

1



Extra Virgin Olive Oil (EVOO)

IMPACT

3 / 5

EVIDENCE

3 / 5

## How to implement

Incorporate 1-2 tablespoons of extra virgin olive oil into your daily diet. Use it as a dressing for salads, vegetables, or incorporate it into cooking, but avoid using it at high temperatures to preserve its health benefits.

## Description

Extra virgin olive oil is a high-quality olive oil obtained from the first pressing of olives. It is rich in monounsaturated fats and antioxidants, like polyphenols, and is associated with various health benefits, including heart health and anti-inflammatory properties.

[Olive oil](#) is fat from the olive, a traditional tree of the Mediterranean Basin [\[R\]](#).

Olive oil has anti-inflammatory and antioxidant properties. It may also reduce the risk of [\[R\]](#), [\[R\]](#):

- Heart disease
- Diabetes
- Cancer

Olive oil is also the primary fat source in the [Mediterranean diet](#), which may improve brain and heart health [\[R\]](#).

## How it helps

A meta-analysis of four randomized controlled trials found that topical olive oil application reduces pressure ulcer incidence significantly compared to other treatments, with no increase in adverse effects. Moderate to low certainty evidence supports its efficacy and safety, suggesting it is a cost-effective option [\[R\]](#).

2



Topical Aloe Vera

IMPACT

2 / 5

EVIDENCE

1 / 5

## How to implement

Apply a thin layer of pure aloe vera gel extracted directly from the aloe plant or an aloe vera-based product directly to the affected area. Gently rub it in until it is absorbed. Repeat this application 2-3 times daily until the symptoms improve.

## Description

Aloe vera is a plant-derived gel known for its skin-soothing and healing properties. Topical applications of aloe vera are commonly used to relieve sunburn, minor burns, and skin irritation, promoting faster healing and reducing discomfort.

[Aloe vera](#) lives in the desert, and its thick leaves store water in the form of a gel [\[R\]](#).

**Topical aloe vera** may help soothe burns and skin conditions [\[R\]](#).

**Oral aloe vera** may help with blood sugar and gut health [\[R\]](#).

## How it helps

Due to the effect of *Aloe Vera* gel to prevent a rise in temperature, non-blanchable redness, swelling, and pain of the skin of regions under pressure, it may help prevent pressure ulcers in hospitalized patients [\[R\]](#).



3



Collagen Peptides

IMPACT

1 / 5

EVIDENCE

1 / 5

## How to implement

Take 10-20 grams of collagen peptides daily, mixing the powder into a glass of water, juice, or a smoothie. It is recommended to consume this supplement on an empty stomach to improve absorption, ideally first thing in the morning or right before bedtime for a period of at least 8-12 weeks to observe beneficial effects.

TYPICAL STARTING DOSE

10 g

## Description

Collagen peptides are a form of collagen that is broken down into smaller, more easily absorbed molecules. They are commonly used in supplements and skincare products for their potential to promote skin elasticity, hair strength, and nail health.

[Collagen](#) is a protein that helps build skin, bones, and joints [\[R\]](#), [\[R\]](#).

People use collagen supplements for [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Joint pain
- Skin health
- Hair growth

## How it helps

A study comparing collagen hydrolysate types (CH-a, CH-b) plus standard care versus placebo for pressure ulcer healing showed CH-b significantly improved healing compared to placebo at 16 weeks (PUSH score, PSST score, wound area). CH-a also improved PUSH score significantly [\[R\]](#).

4



Zinc

IMPACT

0 / 5

EVIDENCE

0 / 5

## How to implement

Take a 15 mg zinc supplement daily, ideally with a meal to enhance absorption.

TYPICAL STARTING DOSE

15 mg

## Description

Zinc is an essential mineral found in various foods, including meat, dairy, and nuts. It is crucial for immune function, wound healing, DNA synthesis, and maintaining healthy skin and nails. Zinc supplements are sometimes used to support immune health and manage zinc deficiencies.

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

- Defend against disease
- Protect DNA from damage
- Heal wounds
- Control blood sugar

Some of the best sources of zinc include **shellfish, pork, beef, and beans**. It is also available as a supplement [\[R\]](#).

Adults should get **8-11 mg of zinc** per day [\[R\]](#).

## How it helps

Zinc plays a key role in maintaining skin integrity and structure. It accelerates wound healing by supporting immune function and promoting collagen synthesis, which is essential for the repair of pressure ulcers.

5

Topical Coconut Oil

IMPACT

0 / 5

EVIDENCE

0 / 5

## How to implement

Apply a small amount of coconut oil directly to the skin area you wish to treat, gently massaging it in until absorbed. Do this process 1-2 times daily, preferably after showering to help retain moisture. The duration of use depends on the condition being treated but generally ranges from a few days to ongoing as needed for skin hydration and protection.

## Description

Coconut oil is a natural plant-derived topical application obtained from coconuts. It is used for its moisturizing and antimicrobial properties, making it suitable for skincare, haircare, and as a general moisturizer.

## How it helps

Coconut Oil has been used topically to aid in the healing of pressure ulcers due to its moisturizing benefits, which help to keep the skin healthy and prevent further breakdown. Its medium-chain fatty acids also exhibit antimicrobial properties that can protect the wound from bacterial infections, promoting a better environment for wound healing.

6



## Zinc and Folate

IMPACT

0 / 5

EVIDENCE

0 / 5

## How to implement

Take a zinc supplement of 15 mg per day and a folate supplement of 400-800 mcg per day with a glass of water, preferably with a meal to enhance absorption. Continue this regimen daily for at least three months to observe benefits.

## Description

Zinc and folate are essential nutrients found in various foods, with zinc predominantly sourced from animal products and folate from leafy greens and legumes. Zinc plays a crucial role in immune function and wound healing, while folate is vital for cell division and the prevention of neural tube defects during pregnancy.

Zinc and [vitamin B9](#) (*folate*) are essential nutrients. Among other roles, they help make DNA and protect it from damage [\[R\]](#), [\[R\]](#).

Some of the best sources of zinc include **shellfish, pork, beef, and beans**. It is also available as a supplement [\[R\]](#).

Rich sources of folate include [\[R\]](#), [\[R\]](#):

- Beef liver
- Spinach
- Black-eyed peas
- Fortified rice
- Asparagus
- Citrus fruits

## How it helps

Zinc is essential for the immune system and skin integrity, helping to speed up the healing of pressure ulcers. Folate also supports cell production and tissue repair.



7



Good Posture

IMPACT

0 / 5

EVIDENCE

0 / 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

Maintaining good posture helps distribute body weight more evenly, reducing excessive pressure on any single part of the body. This is especially important for individuals who are immobile or bedridden, as it can greatly decrease the risk of developing pressure ulcers by ensuring that no single area bears too much pressure for extended periods.

8



Compression Therapy

IMPACT

0 / 5

EVIDENCE

0 / 5

## How to implement

Wear compression stockings or sleeves daily, especially during long periods of standing or sitting. Choose a compression level appropriate for your condition (mild, moderate, or high), as advised by a healthcare professional. Start wearing them in the morning before swelling occurs and keep them on until bedtime.

## Description

Compression therapy involves wearing specialized garments that apply pressure to the limbs, promoting better circulation and reducing swelling. It is commonly used to manage conditions like venous disorders and can help alleviate symptoms, improve vascular health, and enhance overall well-being.

In compression therapy, different methods are used to apply pressure to the legs. These methods include [\[R\]](#):

- Bandages
- Wraps
- Compression stockings
- Pneumatic pressure devices

Compression therapy supports blood flow. It may help [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Prevent blood clots and deep vein thrombosis (DVT)
- Reduce some kinds of swelling
- Reduce symptoms of restless legs syndrome

## How it helps

Compression therapy can enhance blood flow and prevent fluid buildup, reducing the risk and severity of pressure ulcers.

9



Dietary Vitamin C

IMPACT

0 / 5

EVIDENCE

0 / 5

## How to implement

Incorporate foods rich in Vitamin C into your daily diet, such as oranges, strawberries, red peppers, kale, and broccoli. Aim to consume 5 servings of fruits and vegetables per day to meet the recommended dietary allowance of Vitamin C, which is 90 mg for adult men and 75 mg for adult women.

## Description

Vitamin C is an antioxidant that supports the immune system, collagen production, and wound healing. It also enhances iron absorption from plant-based foods and contributes to overall health.

[Vitamin C](#) is an essential nutrient. This means that our bodies can’t produce it on their own, so we have to get it from food or supplements [\[R\]](#).

Vitamin C has antioxidant properties. It supports immunity, heart health, and wound healing [\[R, R\]](#).

Vitamin C deficiency is called *scurvy*. In the past, many sailors suffered from it [\[R\]](#).

## How it helps

Vitamin C plays a significant role in the synthesis of collagen, a key component of skin that enhances wound healing. Thus, it can help in the repair of pressure ulcers.

10



Dietary Vitamin A

IMPACT

0 / 5

EVIDENCE

0 / 5

## How to implement

Include foods high in vitamin A in your daily diet, such as sweet potatoes, carrots, spinach, and fortified foods like milk. Aim for 700-900 micrograms (mcg) of vitamin A per day for adults, depending on your age and sex, with a slightly higher intake recommended for women who are pregnant or breastfeeding.

## Description

Vitamin A is essential for maintaining healthy vision, immune function, and skin integrity. It also plays a role in cell differentiation and growth, supporting various bodily functions.

## How it helps

Vitamin A is crucial for skin integrity and wound healing, making it beneficial for managing pressure ulcers.

11



Omega-3 (Fish Oil)

IMPACT

0 / 5

EVIDENCE

0 / 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

2000 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

Omega-3 fatty acids help reduce inflammation and promote healing, making them beneficial for treating pressure ulcers.



12



Dietary Zinc

IMPACT

0 / 5

EVIDENCE

0 / 5

## How to implement

Incorporate foods high in zinc, such as beef, poultry, seafood (especially oysters), beans, nuts, and whole grains, into your daily diet. Aim for the recommended dietary allowance of zinc, which is 11 mg per day for adult men and 8 mg per day for adult women.

## Description

Dietary zinc is essential for the body. It helps our immune system fight off bacteria and viruses, plays a role in healing wounds, and is essential for our sense of taste and smell. Without enough zinc, these systems may not work as effectively as they should.

## How it helps

Zinc is important for immune function and skin integrity. It assists in wound healing by contributing to cell proliferation, which can aid in the recovery from pressure ulcers.



13



Vitamin C

IMPACT

0 / 5

EVIDENCE

0 / 5

## How to implement

Take 500-2000 mg of vitamin C supplement daily. It can be taken at any time of the day, with or without food, according to personal preference or tolerance.

TYPICAL STARTING DOSE

2000 mg

## Description

[Vitamin C](#) is an essential nutrient. This means that our bodies can’t produce it on their own, so we have to get it from food or supplements [\[R\]](#).

Foods rich in Vitamin C include: [\[R\]](#)

- Citrus Fruits
- Peppers
- Brussel sprouts
- Kiwi
- Broccoli
- Tomato
- Cantaloupe
- Cauliflower
- Spinach

Vitamin C has antioxidant properties. It supports immunity, heart health, and wound healing [\[R\]](#), [\[R\]](#).

Vitamin C deficiency is called *scurvy*. In the past, many sailors suffered from it [\[R\]](#).

## How it helps

Vitamin C is crucial for the healing of pressure ulcers as it is involved in the production of collagen, a vital component of skin. It also helps in fighting infections and improving skin health.

14



Vegetables

IMPACT

0 / 5

EVIDENCE

0 / 5

## How to implement

Incorporate at least 2-3 cups of various vegetables into your daily diet, ensuring a mix of colors like greens, reds, and yellows to maximize nutrient intake. Aim to include vegetables in most meals, either as a side, part of the main dish, or snacks.

## Description

Vegetables are edible parts of plants that offer various health benefits due to their rich nutrient content, including vitamins, minerals, fiber, and antioxidants. They are essential components of a balanced diet and contribute to overall health, supporting various bodily functions.

## How it helps

Vegetables are full of essential vitamins and minerals, including vitamin C and vitamin A, which support skin health and wound healing.

15



Vitamin D and Calcium

IMPACT

0 / 5

EVIDENCE

0 / 5

## How to implement

Take 600 IU of vitamin D and 1000 mg of calcium daily. For adults over 70 years, the vitamin D intake should be increased to 800 IU daily. These supplements can be taken together or separately, usually with a meal to enhance absorption, and it is advisable to continue this regimen as part of your daily routine indefinitely unless advised otherwise by a healthcare provider.

## Description

Vitamin D plus calcium supplements typically combine vitamin D, often sourced from sunlight exposure or dietary sources, with calcium, primarily found in dairy products and leafy greens. This combination is used to promote bone health, reduce the risk of osteoporosis, and support overall musculoskeletal well-being.

## How it helps

Vitamin D helps in calcium absorption, which is important for bone health and skin repair, both essential in the recovery process of pressure ulcers.

16

Topical Honey

IMPACT

0 / 5

EVIDENCE

0 / 5

## How to implement

Apply a thin layer of raw, unpasteurized honey directly to the affected area of the skin. Cover it with a sterile bandage and leave it on for at least 1 hour, or overnight for best results. Repeat daily until improvement is seen.

## Description

Honey is a natural topical application known for its moisturizing, antibacterial, and wound-healing properties. It is used to soothe dry skin, promote skin repair, and address minor burns and cuts.

[Honey](#) is a thick, sweet substance. It’s made by honeybees from the nectar of flowering plants. There are many different types of honey. For example, kanuka honey is made from the flowers of the New Zealand kanuka tree [\[R\]](#), [\[R\]](#).

Besides sugar, honey also contains amino acids (protein building blocks), vitamins, and minerals [\[R\]](#).

People use honey for its anti-inflammatory and antioxidant properties. It may help with [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Heart problems
- Gut problems
- Cough
- Skin problems

## How it helps

Topical application of honey on pressure ulcers can help promote healing due to its natural antibacterial properties, which reduce the risk of infection. Honey also draws moisture away from the wound, which helps to speed up the healing process. Its anti-inflammatory properties can reduce pain and swelling around the ulcer area.

# Next Steps

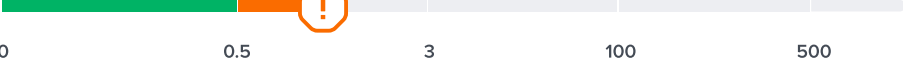
Remember, your genes only tell one important part of your health story!

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.

|                                                                                     |            |              |                                                                                       |            |
|-------------------------------------------------------------------------------------|------------|--------------|---------------------------------------------------------------------------------------|------------|
|  | Zinc       | 17.12 umol/L |  | 9 Nov 2025 |
|  | Albumin    | 4.3 g/dL     |  | 9 Nov 2025 |
|  | Hemoglobin | 17.1 g/dL    |  | 9 Nov 2025 |
|  | hs-CRP     | 1.6 mg/L     |  | 9 Nov 2025 |