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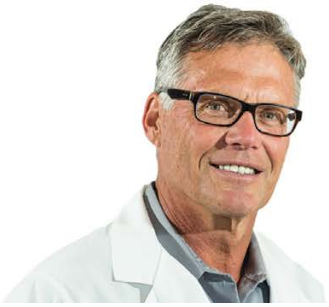

Natural Health Response
WITH DR. RICHARD GERHAUSER M.D.

A Closer Look at mRNA Cancer Vaccines

Why They're NOT All They're Cracked Up to Be

Richard Gerhauser, M.D.
Editor, *Natural Health Response*

Excitement has been brewing in medical research and mainstream pharmaceutical companies regarding the new messenger RNA (mRNA) vaccines.

They've been in the works for *decades*, but the first time an mRNA vaccine was rolled out to the public was with the COVID-19 vaccines.

Now, the race is on to utilize this new type of vaccine to treat **cancer**.

Trials have been ongoing using mRNA vaccine technology to selectively stimulate the immune system to fight cancer instead of using toxic drugs or radiation that can cause horrific side effects.

Could this be the safe, effective cancer treatment we've been waiting for?

The Vaccine of the Future

Messenger RNA, or mRNA, is the incredible molecule that's translated into every protein in our cells and bodies.

Trials have been ongoing using mRNA vaccine technology to selectively stimulate the immune system to fight cancer instead of using toxic drugs or radiation that can cause horrific side effects.

mRNA vaccines capitalize on this unique ability by using a viral protein's genetic material (the mRNA) to teach your body how to make that protein.

This causes your immune system to create antibodies to fight the virus even though you're *not* infected. Then, if you *do* become infected, your immune system already has antibodies in place to battle the virus.

This is different from typical vaccines, which introduce a harmless or weakened bacteria or virus strain into the body to trigger an immune response.

mRNA technology has existed since the 1990s, so the technology isn't brand new. However, mRNA applications in medicine were initially limited because they activated strong inflammatory reactions in the cell.

In the early 2000s, scientists Katalin Kariko and Drew Weissman solved this issue by creating a way to block the inflammatory response. They were awarded the Nobel Prize in Medicine and Physiology for this discovery in 2023.

All of this set the stage for the COVID-19 vaccine, which became the first FDA-approved mRNA vaccine in the US.

The First Big mRNA Test

This breakthrough led to "Operation Warp Speed," which allowed for the unprecedented speed at which the drug companies developed the mRNA COVID-19 vaccines.

When the COVID-19 vaccines were rolled out, the government—including the president, the CDC, the FDA, and just about any

WHAT'S INSIDE

scientist connected with the government—stated that the mRNA vaccine was safe and effective.

Not so fast.

Calling these vaccines "safe and effective"—when the only data available were *short-term* clinical trials—was dishonest at best.

I'm board-certified in preventive medicine and public health, so you might say I'm an expert in this area. And I'm telling you… there's NO WAY they could know if these vaccines were safe OR effective in such a short time.

To me, forcing a rushed, untested technology on the entire population was breaking the first rule of my ethos that guides my practice of medicine: *Primum non nocera*, or "First, do no harm."

I would have had *less* of a problem if the health authorities had given proper informed consent before injecting the population with an experimental vaccine.

This would have looked something like this: "The vaccine creates an antibody response in a unique way that may help, but there is much more that we just don't know."

Since then, even though the authorities *continue* to tout the COVID-19 vaccine as a resounding success, studies are starting to paint a MUCH different picture.

One study in particular that analyzed 81 different articles showed **17,636 cardiovascular complications** and **284 deaths** in people that may have occurred as a result of the shot.

This broke down to 13,936 reports of thrombosis, 758 reports of stroke, 511 reports of myocarditis, 377 reports of myocardial infarction, 301 reports of pulmonary embolism, and 254 reports of arrhythmia.[1]

I'm telling you all of this about the COVID-19 vaccine because it sets the stage for the mRNA cancer vaccines.

This is the best working example of the mRNA vaccines. And the rainbows and sunshine propaganda you hear from the government and medical authorities about this technology is very different from reality.

I believe the same is (and will be) true for the mRNA cancer vaccines.

Who Needs Safety Studies?

With the COVID-19 mRNA vaccine "successfully" launched, scientists hope to utilize the momentum to harness this same technology against **cancer**.

Trials are underway testing vaccines against lung cancer, a glioblastoma vaccine (the most lethal brain tumor), pancreatic cancer, colorectal cancer, and melanoma.

Like the COVID vaccine, these cancer vaccines work by instructing cells to produce proteins that stimulate an immune response against these proteins when they're present in tumor cells.

Researchers are even hoping to be able to create *personalized* cancer vaccines that are developed based on the specific features of a person's tumor.

This is the *idea*, anyway.

But as to whether mRNA vaccines are going to be the next breakthrough cancer treatment or not… let's just say I won't be holding my breath.

Vaccine experts have called into question some of the side effects that could potentially occur. They're raising concerns because **there are currently no published studies looking into these issues**.

Would the side effects be as bad as cancer itself? Possibly, but we simply *don't know*.

Experts in the field have stated that these studies are **urgently needed** to prove the safety of this technology.

If you want to go deep into the weeds of this issue, read the paper published in *Medical Hypothesis* called "Potential Health Risks of mRNA-based Vaccine Therapy."

In the paper, the authors state: "Trials to evaluate the biodistribution, cellular uptake, the endosomal escape, translation rates, functional half-life and inactivation kinetics of synthetic mRNA, rates and duration of vaccine-induced antigen expression in different cell types, as well as potential interactions with the host genome **were bypassed**."[2]

In other words, let's skip the safety studies as we've always done with vaccines. After all, you can't move at warp speed if you're stopping to ask questions.

They also cite a report showing complete *reverse transcription* of the vaccine mRNA. This means that the **vaccine mRNA can become part of your genetic code**.

This possibility is a MAJOR safety concern because it could lead to

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autoimmune and inflammatory conditions, and possibly even cancer.

Rushing vaccines through approval without adequate long-term safety studies is nothing new.

I've been critical of how vaccines are approved—and how they're often mandated without long-term safety studies—for my entire career.

Drug companies don't worry about safety studies because of a 1986 law making them **immune** to any harmful effects caused by a vaccine.

That's right… **drug companies don't have to answer for any harm caused by vaccines**.

That should make you think twice before getting ANY vaccine—but especially one that is new and untested.

But once again, if they give proper informed consent, including letting people know we don't know what the actual risks may be, I would have *less* of an issue.

Financial Toxicity

The other problem I have with these personalized mRNA treatments is that there's no doubt they will be extremely expensive.

Quite frankly, the price of new cancer drugs is unsustainable.

Let's look at an example. There are ongoing trials for the mRNA vaccine to treat malignant melanoma. The mRNA treatment doesn't *replace* the current treatment in this trial but is **added** to the current treatment.

So, if the current treatment is Keytruda, that means the patient is *already* on a drug that costs almost $200,000 per year. An mRNA vaccine would add *another* $200,000 per year on top of that.

There's already a term popping up in the medical literature to describe the outrageous drug prices. It's called "financial toxicity."

This is where the exorbitant cost of modern cancer treatments causes things like bankruptcy, stress, the inability to afford treatment, not being able to feed your children, and so on.

As the prices of these drugs have skyrocketed, payers like Medicare and insurance companies are diverting more of the cost to the patient.

This only makes sense because Medicare and Social Security are predicted to have depleted their trust funds by the 2030s, so they must do *something*.

The financial toxicity is further shown by the United States spending 16.5 percent of the gross domestic product (GDP) on healthcare. **That's the highest percentage of any country on earth**.

I can envision what it will be like when my granddaughter is in midlife. She will live in a tiny apartment, eat processed foods, not have a car, not own anything, and won't be able to travel, but she will have access to free mRNA vaccines, which will be spread from airplanes so that no one can opt-out.

There will be no problem paying for the vaccines because healthcare will be 90 percent of the GDP, and that's why you can't own anything.

There is no money left.

Yet there will still be the elite, like the pharmaceutical executives and politicians, smiling from their yachts and vacation homes with mother nature undisturbed by the lower classes.

It will take something radical to right the ship.

No Vaccine Necessary

If I were a betting man, I wouldn't put my money on the mRNA vaccines.

Instead, I'd be doing everything in my power to never get cancer to begin with.

Thankfully, modern science continues to remind us of what we've known all along: **Cancer is a modern disease caused by modern lifestyle.**

In prehistoric humans, cancer was very rare.

A literature review on the evidence of cancer in ancient societies concluded, "Yet again extensive ancient Egyptian data, along with other data from across the millennia, has given modern society a clear message—cancer is man-made and something that we can and should address."[3]

If cancer were rare today, would you really need these financially toxic immune-stimulating drugs that have the potential to cause horrendous side effects?

And, if cancer was this rare, would the drug companies be spending billions of dollars trying to come up with a treatment that will extend your life by just a couple of months?

We *know* the lifestyle factors that make cancer the NUMBER ONE killer globally, as reported by the World Health Organization (WHO).

Toxic chemical exposures, ubiquitous circadian rhythm disturbances as we light up the night on earth, ever-increasing electro-smog that has been shown to promote cancer, physicians telling us to avoid the sun, lack of physical activity, poor diet, and a lack of connection to nature—**all have been proven to play a role in cancer**.

A certain segment of society wants to keep the sickness rising so they can get rich and control what society focuses on—even if it makes no sense.

At this point, the FDA has not approved any mRNA cancer vaccines for use.

But when it does, I'll be keeping my sleeves rolled *down*.

And, of course, you should consult with your own doctor about what's best for YOU.

The Hidden Health Risks of Microplastics

How to Reduce Your Exposure

Personally, I don't like to shop at Walmart, but I go there to purchase worms for fishing.

Every time I walk through the doors, I'm astounded by the piles of **plastic** stacked from floor to ceiling. Even *more* astounding is that most of that plastic will end up as trash after a single usage.

It's been reported that Americans fill up a large NFL football stadium with plastic waste *every 15.5 hours*.

This is more than just a problem for our planet.

Plastic poses a significant risk to our *health*. The chemicals in plastic products have been connected to problems ranging from metabolic disorders to endocrine issues to cancer.

And you're being exposed every day *in ways you never imagined*.

Now, especially in this day and age, you can't avoid plastic altogether. However, I'll share how to minimize your exposure and reduce your risk.

A Growing Problem

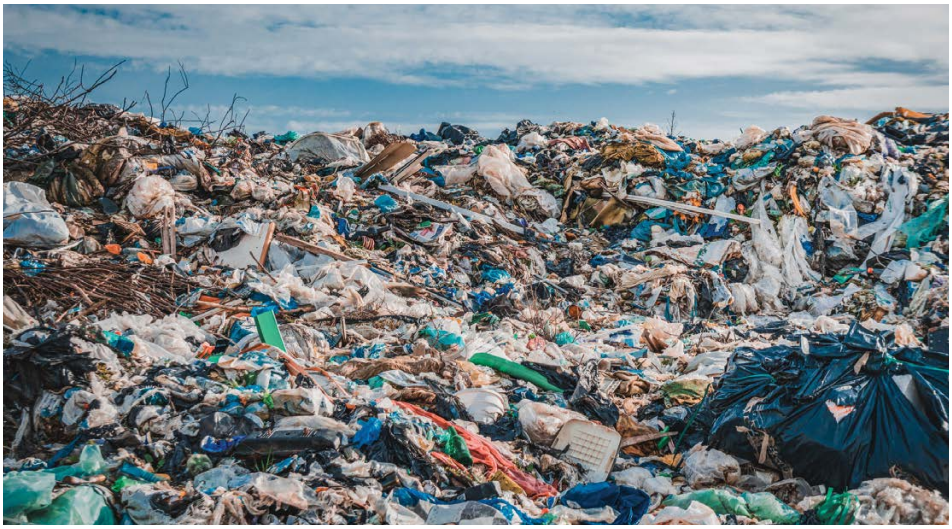
Make no mistake: Plastic is a big—and growing—problem.

More than **800 billion** pounds are produced every year—yet it takes hundreds of years for plastic to break down.

Plastic is used for food packaging, building materials, in electrical and industrial machinery, and consumer products.

We even wear plastic clothing (we have John Travolta to thank for that).

Only about nine percent of plastic is recycled. What doesn't get recycled clogs up landfills and spreads to every corner of the planet.



More than 800 billion pounds of plastic are produced every year—yet it takes hundreds of years for plastic to break down.

You may have heard of the **Great Pacific Garbage Patch**, a collection of floating debris that spans *600 thousand square miles* in the Pacific Ocean.

Discarded plastic is either burned (where it pollutes the air) or put in a landfill (where it can harm future generations).

Organizations are now sounding the alarm about how plastic is destroying our planet.

But what more people should be talking about is the fact that plastic is also destroying our *health*.

Plastic and Your Health

Every time you use something plastic—whether it's bottled water, a plastic drinking straw, that bottle of ketchup, or that tub of Greek yogurt—you're being exposed to the chemicals that are used to change the properties of plastic (such as making it softer or harder).

More than **16,000 chemicals are used in plastics**. About 4,200 are considered "highly hazardous" to health and the environment—yet less than a quarter of these known hazards are regulated by health agencies.

And the ones that have been tested have **failed**.

One of the most well-known is Bisphenol a (BPA).

BPA is a known endocrine disruptor. This means that it alters the way your body sends signals using hormones. This has been linked to reproductive, developmental, and metabolic disorders.

In vivo studies show a link between BPA exposure and increased risk of hormone-related cancers like breast, prostate, and ovarian cancers, and endometrial carcinoma.[1]

One study even found that people with the highest BPA levels in their urine (compared to those with the lowest) have a 49 percent higher risk of death from ALL causes![2]

Another class of harmful chemicals found in plastic is **phthalates**, which are used to make plastics more flexible.

Premarket toxicity testing is designed

to identify "safe" levels of exposure to various chemicals. However, recent studies reveal that exposure to phthalates that are within the legal limits *still* causes harm.

For example, one recent study showed five different phthalates that caused reproductive damage in men at *supposedly* safe levels.

Like BPA, phthalates are endocrine disruptors. And they're associated with developmental disorders, cardiovascular disease, cancer, and metabolic disorders.

I could go on, but space is limited—but you get the idea.

These chemicals are so harmful because *they don't stay within the product*. They leach out of the plastics and into whatever is touching them—whether it be the food you're eating, the plastic bottle you drink out of, or directly into your skin.

BPA, in particular, has been found in the blood samples of adults, children, and babies. Once in your body, we've seen what kind of havoc it can wreak.

Nowhere to Hide

When plastics *do* begin to break down, they do so into something that's another problem altogether: **microplastics**.

These are defined as fragments of plastic that are anywhere in size from the width of a hair to that of a toothpick (less than 5 mm).

Research reveals microplastics may cause respiratory, digestive, sleep, and reproductive problems. They can increase the risk of diabetes, metabolic disorders, weight gain, insulin resistance, cancer, and more.

National Geographic funded a study to find how much of the earth is polluted with microplastics.

The article's title says it all: "Microplastics Have Moved to Every Crevice on Earth."

Microplastic particles have been found everywhere, from the Mariana Trench, the deepest point in the ocean, to the top of Mt. Everest, the world's tallest peak.

They're in the food you eat, the water you drink, and the air you breathe.

According to the World Wildlife Fund, people ingest an average of five grams of plastic every week and eat about 50,000 microplastic particles a year.

So, it shouldn't be surprising that microplastics have been found in 80 percent of the blood samples of people tested.

It's even been found in *human placentas*. This organ is supposed to support the growth and development of babies in the womb. The fact that they could contain detectable levels of endocrine-disrupting and neurotoxic chemicals in them is **extremely alarming**.

In the marine environment, microplastics get ingested by aquatic animals and can lead to reproductive problems and death.

Closer to home, testing of the St. Lawrence River found every single sample contained microplastics. The most common was polyester, followed by spandex and Lycra—all from clothing.

Tips to Reduce Plastic Use

When fishing with my Walmart worms, I always bring an empty backpack and fill it with plastic bottles, wrappers, fishing lines, and other plastic containers that my fellow fishermen leave behind.

I've seen the tragedy of a bird or fish entangled. It's a slow, painful death.

We've got to do better.

As a society, a call for bans and restrictions on plastic products is intended to reduce plastic pollution through local mandates called extended producer responsibility (EPR).

EPR policies make manufacturers responsible for the entire lifecycle of their products, including disposal and recycling, which incentivize the reduction of plastic waste.

Work is also ongoing to develop plastics that can break down in the environment.

In the meantime, there are steps you can personally take to reduce your use of—and exposure to—plastic.

1. **Wear clothes made of natural fibers**. If you absolutely must have spandex tights, wash them as little as possible. Each washing adds 700,000 microplastic particles into the environment. When the clothes start to break down, throw them out.
2. **Avoid plastic food containers** as they have been shown to transfer harmful chemicals into the food. Instead, purchase glass or stainless-steel food storage containers.
3. **Use plastic-free kitchen utensils**, like wood, stainless steel, or silicone.
4. **Bring a cloth bag when you go to the grocery store** to avoid using plastic grocery store bags. Better yet, purchase your produce at a farmer's market and use cloth bags to carry the food home.
5. **Use water bottles made of glass or steel**. In addition to

Take Action!

If you want Walmart to cut down on single-use plastic, sign the petition at https://pirg.org/take-action/tell-walmart-its-time-to-phase-out-single-use-plastics/.

avoiding plastic exposure, you'll have the advantage of adding extra weight when you go jogging, so you don't have to go so far.

6. **Choose to have receipts emailed to you** instead of printed out, as receipts printed on thermal paper have been shown to contain up to 1,000 times more BPA than what's found in a food container.
7. **Don't use recycled toilet paper** because it contains BPA from those thermal receipts. (Do you really want a dose of BPA up the rear end?)
8. If you use a plastic food container, **DON'T heat or cook your food in a microwave oven**. Research shows that toxic chemicals are produced with the interaction of plastic and the molecules in the food, which may lead to health concerns.[3]

I started avoiding microwave ovens even before the plastic issue because of the high levels of radiofrequency radiation they emit (which I've personally verified with radiofrequency meters).

These are all good steps to take. But even if you do everything perfectly, there's simply no way to avoid exposure to plastic altogether.

Fortunately, your body has its own detoxification mechanism: your liver.

It metabolizes the BPA into BPA glucuronide, which then gets excreted from the body.

This system is the most robust when your **mitochondria** are humming (high energy, high redox state).

To keep your mitochondria—and therefore your detox systems—in good working order, follow a healthy lifestyle: Get plenty of sleep, exercise, whole foods, and sunlight.

"How I Reversed My Hair Loss"

Dr. G's Out-of-the-Box Solutions for Pattern Baldness

Nothing can take you from "stud" to "dud" faster than a receding hairline.

But thinning hair can be much more than a vanity issue. *It can also be a warning sign of an underlying health issue.*

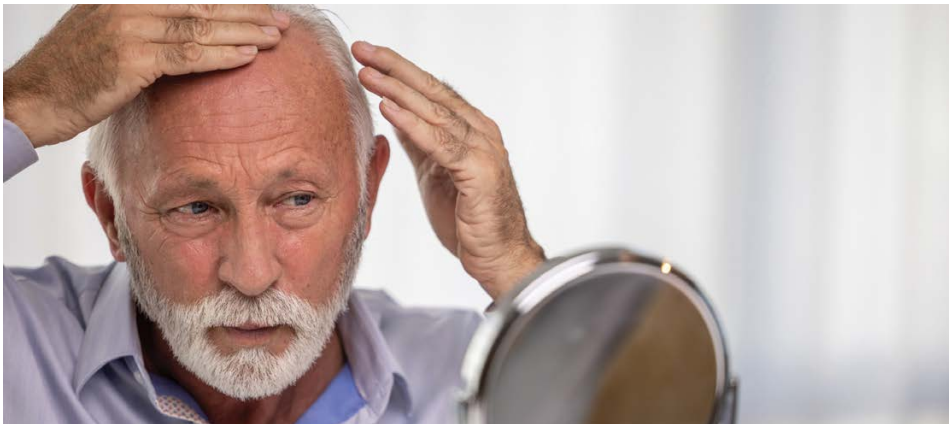
So, when I noticed my *own* hair starting to thin, I wasn't going to go down without a fight.

The steps I took not only produced thicker hair… but also less gray, to boot.

The path you take to healthier hair might look different than mine. That's because, *you need to identify the underlying cause* to STOP your hair loss.

The Root Cause of Hair Loss

The most common hair-loss-related condition in men and women is **androgenic alopecia**, also known as pattern baldness.



Typically, pattern baldness in men includes a receding frontal hairline and, in women, diffuse hair thinning.

Typically, pattern baldness in men includes a receding frontal hairline and, in women, diffuse hair thinning.

If you go to your mainstream primary care medical doctor or dermatologist, you'll get several drug treatment options.

The two FDA-approved drugs include topical **minoxidil** (originally an antihypertensive drug) and **finasteride**, a 5 α reductase inhibitor that's given orally.

Minoxidil can increase the amount of hair by increasing blood flow to the scalp.

Finasteride combats hair loss by lowering dihydrotestosterone (DHT), a hormone that can affect the hair follicles, resulting in thinner or absent hair.

But you could also pay a BIG price for a little more hair.

Potential side effects of finasteride include decreased libido, erectile dysfunction, and ejaculatory dys-

function *that, in some cases, may be* ***permanent*** *even if you stop taking the drug.*[1]

Minoxidil side effects can include dizziness, fast/irregular heartbeat, fainting, chest pain, swelling of hands/feet, unusual weight gain, and tiredness.

I've personally seen patients suffer from these side effects, so I don't recommend these options.

Beyond their potential side effects, the biggest problem I have with these drugs is that **they don't address the root cause of your hair loss.**

Sudden hair loss or thinning can indicate an underlying medical condition or nutrient deficiency. If you take a drug to treat hair loss—*without looking into why you're losing your hair*—you're ignoring a critical warning sign.

That's why it's a good idea to consult with your healthcare provider if you notice sudden increases in hair loss.

The following are the most common underlying reasons.

#1: Hormone Imbalance

One of the most common explanations for hair loss is a **hormone imbalance**. This can be a problem for women *and* men.

Many different hormones are involved in hair growth, cycle, and density. That's why a disorder that affects your endocrine system often impacts your hair.

Hormone imbalances can occur as a result of pregnancy or menopause, polycystic ovarian syndrome, thyroid dysfunction, or even chronic stress.

Low estrogen, progesterone, or androgen levels—or *higher* cortisol or prolactin levels—can prevent hair from growing, slow hair growth, or cause outright hair loss.

About 50 percent of people with hyperthyroidism (overactive thyroid) and 30 percent of people with hypothyroidism (underactive thyroid) experience diffuse hair loss.[2]

If you're experiencing hair loss, talk to your doctor about having your hormones tested—and then take steps to correct any imbalances. If this is the underlying reason for your hair loss, you'll experience many benefits beyond a thicker head of hair.

#2: Nutrient Deficiencies

Another common reason for hair loss is vitamin or mineral deficiencies.

For example, vitamin D creates cells that develop into hair follicles and vitamin B12 supports healthy hair growth.

Iron carries oxygen to your hair follicles, which is necessary for hair growth.

Essential fatty acids also help support healthy hair growth.

Deficiencies in any of these—or additional ones like biotin, zinc, protein, riboflavin, and B complexes—can impact healthy hair growth.

Low nutrient levels can *also* lead to anemia, fatigue, depression, bone loss, and more.

If you're experiencing hair loss, talk to your doctor about testing for nutrient deficiencies. In the meantime, switch to a whole foods diet, get plenty of sunlight, and take a good quality multivitamin (like Two-a-Day from Life Extension) to help get you on the right track.

#3: Prescription Drugs

There is a *long* list of prescription drugs that often contribute to hair loss. A few of the top ones include chemotherapy and radiation, beta-blockers, antidepressants, blood thinners, cholesterol-lowering drugs, and various hormone medications.

Did You Know?

Going bald is a risk factor for cardiovascular disease.

How are your hair and your heart connected? **By your circadian rhythm!**

A protein called PER2 regulates circadian rhythms in your brain.

PER2 is critically important for endothelial function in our blood vessels. However, it's *also* involved in hair growth.

A disrupted circadian rhythm disrupts PER2, which can result in problems with your hair AND blood vessels.

If you think your hair loss could be the result of one of these drugs, talk to your doctor about the possibility of switching medications or altering the dosage. But DON'T stop taking any prescription drug without talking with your doctor first.

#4: Circadian Disruption

For my own pattern baldness, I took a different route.

I fixed my circadian rhythm.

Hair follicles are the POSTER CHILD for circadian control. Scientists have even proposed that hair follicles be used as a barometer to measure how efficient (or messed up) a person's circadian mechanism is.

Natural light activates stem cells in the hair follicles via the master clock of the circadian system, the suprachiasmatic nucleus.

Your doctor is literally blind to this remedy, as the frequencies of light most critical for human health—ultraviolet and infrared—are *invisible*.

Another key reason your circadian rhythm influences hair growth is its impact on **mitochondria**, the powerhouses of the cell.

You see, when your circadian rhythm is in sync, there's optimal melatonin production in the mitochondria. In addition to inducing drowsiness so we can fall asleep, *melatonin protects the mitochondria from free radicals*.

So, in a domino effect, circadian disruption can lead to mitochondrial dysfunction, which can cause oxidative stress, leading to hair loss.[3]

To learn more about the critical importance of circadian rhythm and all the details you need to reset—and optimize—your internal clock for ultimate health and longevity, visit ovhlearning.com and check out my *Circadian Rhythm Reset Protocol*.

Power Up Your Hair Growth

The FDA has approved devices that cool the scalp to prevent hair loss in chemotherapy. The theory is that the cold decreases the blood flow in the skin, allowing less toxic drugs to reach the skin and hair follicles.

But I have another theory.

You see, mitochondria are hydrogen heat engines. Over 200 years ago, Nicholas Carnot's work with steam engines found that the greater the difference between the temperature *inside* the engine and the *outside* environment, the more efficient the engine became.

You get more efficiency if the engine is hot and the outside is cold. That's why jet aircraft are most efficient when they fly in freezing temperatures at 30,000 feet in altitude.

Could these scalp devices work by giving the mitochondria a *boost* from the Carnot effect?

Another FDA-approved treatment for hair loss is **photobiomodulation** with low-level laser therapy (LLLT) or LED red and infrared lights.

Can you guess how this treatment works?

By boosting your mitochondria!

Red light is absorbed into the mitochondria, which decreases nitric oxide and increases ATP production. This increases energy in the cell, *improving hair count*.

There are many red-light products on the market. The typical recommendation is to use the device for 10 minutes daily for six months to experience significant results.

Of course, you could simply skip the fancy gadgets and improve your circadian rhythm, mitochondria, AND hair health by spending more time outdoors.

If you spend most of your time inside, you must at least have an open window. The most critical frequencies (infrared and ultraviolet) are filtered out when the light passes through glass.

The master clock is set by sunlight in the eyes at dawn. This is the time of day when blue light is beneficial, but in nature, blue frequencies are never alone.

Ditch the sunglasses, sunscreen, regular glasses, hats, and even hair dye for optimal benefits.

I can testify that when I fixed my light issues, started cold exposure, and reduced my exposure to artificial light at night, my hair became much thicker and less gray.

Alternative Treatments for Hair Loss

Drugs aren't the only option for battling hair loss. Following are four alternative treatments that have reportedly worked for many.

1. **Platelet-rich plasma injections** show promise for combatting hair loss. This technique involves drawing your blood. Then, a special centrifuge separates the red blood cells from the plasma.

   This plasma is rich in platelets, which contain many growth factors that also appear to stimulate hair growth. The downsides of this treatment are that it's expensive and will likely need to be done on an ongoing basis.

2. **Hair oiling** is a traditional medicine treatment that involves pouring plant-based oils onto your hair and massaging them into your scalp. You'll leave the oils in overnight (covering your hair with a shower cap) and then rinse your hair in the morning.

   There's not a lot of research on this practice, but it's been part of many traditional medicine practices for centuries. Popular oils for hair oiling include rosemary oil, tea tree oil, pumpkin seed oil, coconut oil, castor oil, and amla oil.

3. **The antifungal drug ketoconazole** can help support hair growth. Studies show it can improve androgenic alopecia, likely because the drug has anti-aging androgenic properties. It's usually applied using a 2 percent shampoo. It is available by prescription.

4. Various **combination nutritional products** have shown promise in treating pattern baldness. One is called Nutrafol®, which includes saw palmetto, ashwaghanda, curcumin, marine collagen, tocotrienol/tocopherol complex, horsetail, amino acids, black pepper fruit extract, Japanese knotweed, hyaluronic acid, and biotin.

   A pilot trial showed that taking Nutrafol improved hair quantity without significant side effects.

   Another oral compound is a marine complex called Viviscal®. It contains shark/mollusk, vitamin C, horsetail extract, and flaxseed extract. This product comes in multiple formulations, such as tablets, shampoos, and creams.