

November 2024

Dear Friend,

When I was hiking through the Andes, I saw loads of people chatting on their cell phones.

Deep in the heart of Africa, the Maasia use their mobile phones to check in with each other while herding their cattle and goats.

And in Kerala, India, I saw fishermen call into shore from their boats to negotiate a price for the day's catch. They even send pictures!

Cell phones are everywhere. In fact, today more people have access to a moblie phone than to toilets.

They're intwined in our modern way of life... especially in a lot of the underdeveloped parts of the world where I often travel.

They give people who wouldn't otherwise be able to afford it access to the internet.

And in that way, the cell phone is one of the greatest inventions of our time.

But I'm worried about the health consequence. Not just from cell phones, but from all devices that emit electromagnetic fields (EMFs).

According to the National Institute of Environmental Health Sciences, EMFs are "invisible areas of energy, often referred to as radiation, that are associated with the use of electrical power."

This electionic pollution is everywhere. And despite "assurances" from federal government reports, numerous studies have repeatedly linked our modern smart devices with significant increases in cancer, Alzheimer's, heart disease, and more.

In fact, EMF — and in particular 5G ultra-wideband technology — means every living thing with DNA has become an unwilling ginuea pig in mankind's most radical public health experiment ever.

How it will effect our health long term is anyone's guess...

But fortunately, there are ways you can take the worry out of your electronics and protect yourself.

In your November 2024 issue of **Confidential Cures**, you will discover:

- What the latest scientific research reveals about the dangers of EMFs, and the devices that emit them. You'll also discover how you can minimize — and possibly even eliminate — the threat to you and your family from this invisible hazard.
- How to stop the metabolism crisis that is effecting almost every person on the planet today. This epidemic — which has skyrocketed since the 1980s — can increase your risk for heart attack, stroke, cancer, Alzheimer's, and other deadly diseases. But there's a simple, yet highly effective natural solution that continues to be ignored by conventional medicine.
- How you can dramatically increase your energy and fight the diseases associated with aging by making sure you have plenty of healthy mitochondria. You'll learn not only how to turbocharge your exisiting mitochondria, but how to make new ones as well.

To Your Good Health,

SAR MO.

Al Sears, MD, CNS

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EMF — The Invisible Hazard That's Stealing Your Health

But You Can Take The Worry Out Of Your Electronics And Protect Yourself From Electromagnetic Fields

If you're in the habit of slipping your cell phone into your pocket when you go out... or walking around with it in your hand... or setting it on your bedside table before turning in for the night...

Or even worse — sleeping with it under your pillow — I urge you to think again.

So many so-called "advances" — especially those that are highly profitable — often come with assurances that they're "completely safe."

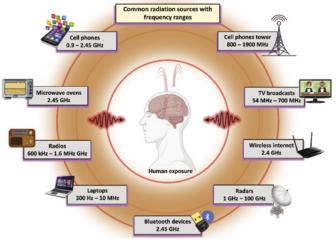
Technologies — like microwaves, CT scans, GMOs, and even e-cigarettes all came with promises of safety — only to be exposed later as dangerous threats to your health.

A mountain of scientific evidence is now emerging about the threat of cell phones and other devices that emit electromagnetic fields (EMFs) — from extremely low-frequency non-ionizing radiation all the way to high-frequency x-rays and gamma rays.

Thousands of studies now reveal that EMFs cause harm to all living organisms.

At the human level, evidence now links the EMFs from cell phones, cell phone towers, Wi-Fi routers, and other "smart" devices to increases in:

- Alzheimer's
- Parkinson'
- Cancer
- Diabetes
- Heart disease
- And a range of neurological and psychiatric conditions.



Today, thanks to the prevalence of our "smart" devices, we are bombarded by EMFs.

Source: Scholarly Community Encyclopedia

This is deeply concerning because more people on our planet today have access to mobile phones than to toilets.

Since Motorola introduced the first cordless handheld phone in the early 1970s, our connection to technology has become deeply intertwined with our daily lives.

Today, 90% of Americans have their cell phones within reach 24 hours a day, seven days a week.¹

The truth is this invisible hazard is destroying your native health...and neither the mainstream media nor the government is doing anything to warn you about it.

Governments throughout the developed world still refuse to regulate exposure to electromagnetic pollution — even as our exposure increases at an ever-increasing rate. At the same time, the telecom industry continues to insist that EMFs emitted from ever more sophisticated devices — like smart phones, tablets, desktop computers, laptops, wireless routers, Bluetooth televisions, and speakers — are all completely safe.

The inconvenient truth is that scientific evidence reveals this claim to be utterly false.

In this *Confidential Cures*, you'll discover what the latest scientific research reveals about the dangers of EMFs, and the devices that emit them.

You'll also discover how you can minimize and possibly even eliminate — the threat to you and your family from this invisible hazard.

What Exactly Are EMFs?

Electromagnetic fields are forms of radiation emitted both from natural and man-made sources. The sun and earth naturally emit EMFs. Household appliances, like microwave ovens, hair dryers, fridges, and washing machines also emit EMF radiation.

But it's the proliferation of wireless technology — I'm talking about cell towers and Bluetooth devices — that has drastically increased our exposure to artificial electromagnetic fields.

You see, telecommunication networks use electromagnetic radiation to transmit information.

At the end of 2022, there were 142,100 cell towers and 452,200 outdoor small cell nodes across America. And those numbers continue to grow.

These high-tech infrastructures have advanced rapidly from the now-defunct 1G networks — back in the days of the early Motorola phones — to today's super-sophisticated 5G for high-speed data transfers.

You see, previous generations of telecom networks were all about connecting people. The goal of 5G is to connect objects.

Dubbed the Internet of Things (IoT), 5G makes possible a world of self-driving cars, smart

"The claim of regulators and the telecoms industry that the radiation emitted from devices and infrastructure is too low to cause health problems is untrue." appliances, and an enormous variety of new devices and contraptions that constantly transmit data...along with EMF radiation.

In just a few years, we've been granted an ever-increasing range of once-unthinkable abilities... the

power to download videos, send pictures and files, search the internet, and talk to anyone we want from wherever we are, all from small wireless devices.

And an even more sophisticated wireless world is just over the horizon.

The health effects of 5G are of particular concern because of the higher frequencies and huge number of transmission towers required to sustain this brave new world — not to mention the vast numbers of personal devices to which they connect.

The claim of regulators and the telecoms industry that the radiation emitted from devices and infrastructure is too low to cause health problems is untrue. It's based on the false assumption that the heat caused by radiation is the only mechanism of harm.

This is highly misleading, and it has been regurgitated for decades by the government and telecom industry — and has been consistently proven false.

The truth is there's much more to radiation than just heat...

The Human Cost Of EMF Radiation

Scientists have known for almost a quarter century that EMF radiation is harmful to human health.

You see, humans are electrical beings. The neurons in your brain use electrical impulses to connect with one another. Our heartbeat starts with an electrical impulse originating in the atria, the upper chambers of the heart, and then passes to the ventricles, causing them to contract.

All cells communicate via electrical impulses.

This occurs because the membranes surrounding every cell in your body are sensitive to electromagnetic frequencies. These membranes are the equivalent of antennas.

So it's not surprising that studies reveal EMFs damage cell membranes, wreaking havoc throughout every system in your body, often causing cell death.²

All life forms have evolved to live within the natural electromagnetic fields emitted from the Earth and its atmosphere. Natural EMFs have constantly changing frequencies.

But telecoms infrastructures, like cell towers, Wi-Fi routers, printers, speakers, earphones, and the devices that connect to them, emit very different patterns of radiation.

These artificial EMFs run on repetitive, pulsing frequencies. If we could hear them, they'd sound something like a perpetual alarm clock going off or the constant sound of a car alarm.

And they cause your cells to behave as if they are constantly in a state of alarm.

This unnatural alarm system results in uncontrolled reactive oxygen species (ROS) that trigger oxidative stress, inflammation, and damage to cells and essential cellular components, like proteins, lipids, and even our DNA.

And they give rise to multiple chronic diseases.

An important study proved that the electromagnetic radiation emitted from Wi-Fi signals disrupts cell signaling.³

Thousands of peer-reviewed papers link long-term effects of non-ionizing radiation part of the EMF spectrum that includes the extremely low frequency fields used for wireless communications — to an increased risk of multiple chronic health conditions, including:

- Alzheimer's⁴
- Parkinson's⁵
- Heart disease⁶
- High blood pressure⁷
- Brain cancer, leukemia, and breast tumors⁸

- Immune system disorders9
- Migraines¹⁰
- Miscarriage¹¹
- Autism¹²
- Lowered sperm count¹³
- Hormonal imbalance¹⁴
- DNA damage¹⁵

Sadly, the above is only a small part of a very long list. Other researchers have linked EMF exposure to clumping red blood cells, heart palpitations, angina, anxiety, fatigue, insomnia, depression, memory loss, amyotrophic lateral sclerosis (ALS) — formerly known as Lou Gehrig's disease — and much more.^{16,17}

For decades hundreds of scientists around the world have warned that the telecoms industry has forced us to undergo the biggest human experiment in history, without our informed consent.¹⁸

Now, despite the silence of government regulators, there is little doubt about the health hazards of unchecked radiation technology. And the threat continues to grow every year.

Recognize The Symptoms

Excess exposure to EMF radiation can come in various forms. The damage is caused largely by the overstimulation of your cells. The health hazard from this constant but inaudible pulse of unnatural EMFs begins with an attack on your immune system, causing it to weaken and become less effective at beating back disease.

This, in turn, can lead to a variety of unpleasant and potentially serious symptoms, which is likely just the first step in the development of a chronic health condition.

It's important to recognize the EMF-exposure symptoms that you or a family member may be experiencing. They include:

- Fatigue and lack of focus
- Chronic inflammation
- Depression and anxiety

- An abundance of viral and bacterial infections
- Heart arrhythmias
- Digestive problems
- Insomnia
- Reduced fertility
- Allergies and autoimmune issues
- Nausea and tremors

But the good news is that there are easy and affordable ways to help diffuse and minimize the risk of electromagnetic waves coming from cellular devices and infrastructure, as well as ways to reverse the health-damaging effects of EMFs.

Take The Worry Out Of Your Technology

There is no way around it — we live in an increasingly digital and toxic world. If you work, you are likely to be employed in a workplace that demands that you stay switched on for much of the day and night.

Even if you are retired, there are countless pressures — from family and news to banking alerts — to stay constantly connected to technology.

I can't emphasize enough how important it is to "unplug" whenever you can and to protect yourself from EMF radiation.

- Increase Distance: The farther away you are from the source — that means cell phones, iPads, Wi-Fi routers and to a lesser extent Bluetooth devices like speakers, headphones and earphones — the less exposure you'll have to EMF radiation. Don't keep your cell phone in your pocket or carry it in your hand for long periods of time, and never sleep with it beside you.
- **Reduce Time Of Use:** The longer you're exposed to wireless devices, the more radiation you'll absorb. Try to keep your phone calls and Wi-Fi use short.
- When Possible, Use Corded Devices: Use a landline corded phone and a wired home computer for internet access, instead of connecting via Wi-Fi.

- Use Speaker Function: Use the speaker function on your phone or corded earphones when you're speaking, instead of holding the cell phone to the side of your head.
- Unplug Devices: Unplug electronic devices and electricity from time to time. You should switch off all cellular, Bluetooth, and Wi-Fi devices during sleeping hours.
- **Consider Shielding Materials:** You can buy reflective paints, window films, fabrics, canopies, curtains, and protective meshes to shield your home from EMF fields.

Avoid anti-radiation protective stickers and cases for your phones, tablets, computers, and other electronic devices. There is no evidence that they will absorb your device's radiation. Some "protective" phone cases have even been shown to increase the radiation the phones emit.

Do A Digital Detox

I also strongly recommend that you take steps to reverse the effects of EMFs on your body...

• **Take Resveratrol:** Studies show that resveratrol, a powerful plant antioxidant, can help reverse the ROS and oxidative stress on cells caused by long-term exposure to electromagnetic fields.¹⁹

Good food sources of resveratrol include raisins, peanuts, plums, cranberries, mulberries, and purple grape juice. But supplements are an even better option. They're not only inexpensive and safe, you can take them any time of day, with or without food. I recommend 100 mg per day of pure trans-Resveratrol.

• Add Chlorella And Spirulina: These nutrient-dense algae are rich in antioxidants, which help prevent oxidative damage by reactive oxygen species generated by EMF exposure.

Studies show that incorporating spirulina and chlorella into your diet can enhance your body's natural defenses against radiation and boost your immune defenses. At the same time, these algae also have a powerful, natural detoxifying effect on the body. Add three grams of chlorella per day to your smoothie, juice or water. (Lemon helps with the unpleasant taste). Meanwhile, spirulina is usually sold as a green powder at most health food stores. Add a teaspoonful in your drink, along with the chlorella.²⁰

• Chelation Is Key: Studies reveal that heavy metal toxicity — obtained via your diet, the water supply, and pollutants in the environment — can heighten sensitivity to EMFs.

You see, the more polluted your body is with heavy metals — such as arsenic, cadmium, lead mercury and aluminum (technically not a heavy metal), the more vulnerable you become to damaging EMF radiation.²¹

That's why detoxifying your body through chelation therapy will reduce susceptibility and improve overall health.

Chelation is an easy and proven heavy-metal detoxification process. I've found that patients get the best results when they combine intravenous chelation with oral chelation.

• **Step #1: Intravenous chelation.** This is a safe, fast and painless procedure that only takes about 10 minutes.

Here at the Sears Institute for Anti-Aging Medicine, I inject calcium disodium EDTA directly into your blood stream. In no time, it binds to the heavy metals and toxins in your blood stream and in the fat around your tissues and pulls them out.

• Step # 2: Oral Chelation. Here are two of the safest and most effective substances you can use to detoxify from heavy metals at home...

1. Activated Charcoal: Hospitals have been using this form of charcoal for many years as an antidote for drugs, poisons and medicinal overdoses. It's a great general cleanser and is especially powerful against heavy metals. Taken orally, it can extract and neutralize many more times its own weight in heavy metals and other toxins. Look for activated charcoal as a very fine, black powder in your local health food store or online. Take 20 to 30 grams of powdered activated charcoal mixed with water daily for one to two weeks.

 Modified Citrus Pectin: The inner peel of citrus fruits contains one of the most potent detox substances in the world. In one USDA study, people taking modified citrus pectin for six days excreted 150% more mercury... 230% more cadmium, and... 560% more lead.²² But make sure you get the right kind. Always look for "modified" citrus pectin.

References

1. Griffith E. "Tech Addiction and the Business of Mindfulness." WIRED. May 2018 2. Li Lin, et al. "Cell membrane oscillations under radiofrequency electromagnetic modulation." Langmuir 2023;39(9):3320-3331. 3. Ishido M, et al. "Magnetic fields (MF) of 50 Hz at 1.2 µT as well as 100 µT cause uncoupling of inhibitory pathways of adenylyl cyclase mediated by melatonin 1a receptor in MF-sensitive MCF-7 cells." Carcinogenesis. 22(7):1043-1048. 4. Dasdag O, et al. "Electromagnetic radiation and Alzheimer's disease." Biotech Biotechnological. 2020;34(1):1087-1094. 5. Aikateria L, et al. "Mobile phone electromagnetic radiation affects amyloid precursor protein and α -synuclein metabolism in SH-SY5Y cells." *Pathophysiology*. 2019; 26. 6. Parizek D, et al. "Electromagnetic fields - do they pose a cardiovascular risk?" Physiol Res. 2023 Apr 30;72(2):199-208. 7. Braune, S et al. "Resting blood pressure increase during exposure to a radio-frequency electromagnetic field." Lancet, 1998;351(9119):1857-1858. 8. Floderus B, at al. "Occupational exposure to electromagnetic fields in relation to leukemia and brain tumors: a case-control study in Sweden." Cancer Causes Control. 1993;4:465-476. 9. Rosado MM, et al. "Immune-modulating perspectives for low frequency electromagnetic fields in innate immunity." *Front Public Health.* 26 March 2018 Mar 26;6:85. 10. Mohammadianinejad SE, et al. "The Effects of exposure to low frequency electromagnetic fields in the treatment of migraine headache: A cohort study." Electron Physician. 2016 Dec 25;8(12):3445-3449. 11. Irani M, et al. "Electromagnetic field exposure and abortion in pregnant women: a systematic review and meta-analysis." Malays J Med Sci. 2023 Oct;30(5):70-80. 12. Herbert MR, Sage C. "Autism and EMF? Plausibility of a pathophysiological link -Part I." Pathophysiology. 2013 Jun;20(3):191-209. 13. Kesari KK, et al. "Radiations and male fertility." Reprod Biol Endocrinol. 2018 Dec 9.16(1).118 14. Asghari A, et al. "A review on Electromagnetic fields (EMFs) and the reproductive system." Electron Physician. 2016 Jul 25;8(7):2655-62. 15. Dimitris J, et al. "Human-made electromagnetic fields: Ion forced-oscillation and voltage-gated ion channel dysfunction. oxidative stress and DNA damage." Int J Oncol. Nov 2021. 16. Havas M. "Radiation from wireless technology affects the blood, the heart, and the autonomic nervous system." Rev Environ Health. 2013;28(2-3):75-84 17. Huss A, et al. "Occupational exposure to extremely low-frequency magnetic fields and the risk of ALS: A systematic review and meta-analysis." Bioelectromagnetics. 2018 Feb;39(2):156-163. 18. Ivan Penn. "Rumors of Tumors: Putting some recent cancer scares in perspective." St. Petersburg Times. Sep 19, 2009. 19. Zhang D, et al. "Resveratrol may reverse the effects of long-term occupational exposure to electromagnetic fields on workers of a power plant." Oncotarget. 2017 Jul 18;8(29):47497-47506. 20. Belay A, et al. "Current knowledge on potential health benefits of spirulina." J Allied Phycology. 5(2). 21. Costa A, et al. "Heavy metals exposure and electromagnetic hypersensitivity." Sci Total Environ. 2010 Sep 15;408(20):4919-20.

22. Eliaz I, et al. "The effect of modified citrus pectin on urinary excretion of toxic elements." *Phytother Res.* 2006 Oct.

Discover Nature's All-In-One Cure For Total Metabolic Health

The Secret Key To Fat Loss, Heart Health, And Avoiding Deadly Chronic Diseases (Including Alzheimer's)

A merica is experiencing a metabolism crisis and it's putting our country's health on a very dangerous course. Up to a third of all U.S. adults are living with metabolic syndrome. This condition comes with soaring blood pressure, excess body fat around the waist, and a high risk for diabetes.

Today, nearly 42% of Americans have metabolic syndrome¹ and that number keeps growing. If we continue at the rate we're headed, it won't be long before this condition affects every man, woman, and child on the planet.

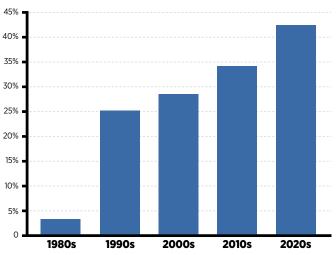
Metabolic syndrome is really a collection of dangerous health conditions, including:²

- Soaring blood pressure
- Prediabetes and high blood sugar
- Excess fat around your waist
- Low levels of HDL cholesterol
- Super high triglycerides
- Excess fat around the waist

Having any one of these can increase your risk for heart attack, stroke, cancer, Alzheimer's disease, and other deadly diseases. And when you have two or more — or full-on metabolic syndrome — your risk skyrockets.³

You can see why you absolutely have to get this growing disorder under control. But the standard solutions you'll get from your doctor won't do the trick.

The Prevalence of Metabolic Disorders Has Risen Dramatically in the Last 50 Years



The percentage of people with metabolic syndrome in the United States during the 1980s was significantly lower than current rates, with estimates suggesting a prevalence of around 1-3%. Today, rates have skyrocketed to 42% — and they are continuing to climb.

Big Pharma's Lifetime Drug Profit Machine

The drug companies don't have a total solution for metabolic syndrome. Instead, they address each component separately. More drugs for you... more money from them. And because these drugs aren't cures — they're not supposed to be — you have to stay on them for life. That's decades of profits based on a lie. Polypharmacy, meaning taking five or more medications, is frighteningly common in the U.S.⁴ Nearly 45% of older Americans swallow multiple prescription and over-the-counter drugs every day, putting them at grave risk for fractures, kidney failure, cognitive decline, and even death.⁵

Yet not one of these drugs addresses the full issue — that your total metabolic health is in danger. And by artificially treating your symptoms without considering the consequences, they're putting you at even greater risk.

The right answer involves taking charge of your metabolic health naturally. And that can change everything.

Why Metabolic Health Matters

Your metabolic system involves all of the chemical reactions in your body. This includes things like:

- Converting food into energy needed to run your body
- Using energy and nutrients to build and repair cells, tissues, and organs
- Creating enzymes (proteins) that control natural body processes
- Allowing in helpful substances and expelling harmful ones

There are five key measures of metabolic health: blood sugar, blood pressure, triglycerides levels, HDL cholesterol levels, and waist circumference. And when even one of those is out of whack, you can't be healthy. With three of those numbers heading the wrong way, you have full-blown metabolic syndrome.

Any breakdown in your metabolic health can set you on a path of pain and illness. Having metabolic syndrome means you're in danger. Metabolic syndrome increases your risk of:^{6,7,8}

- Diabetes up to 515%
- Stroke up to 189%
- Breast cancer up to 673%
- Colorectal cancer up to 261%
- Liver cancer up to 506%

- Death from heart disease up to 144%
- Premature death from any cause up to 124%

This list could go on and on — but you get the idea. Metabolic problems can kill you. And for most people, metabolic issues start with weight gain.

Metabolic Issues Start With Obesity

There's no denying America has an obesity problem. It starts with our food supply, or rather our fake food supply.

For decades greedy corporations pushed addictive and anti-nutritious products on us. They filled us up with high fructose corn syrup, trans fats, rancid vegetable oils, and highly processed foods. They steered us away from the foods our bodies really need, including animal proteins and animal fats.

So most Americans inevitably gained weight, quickly moving over the line into obesity.

Being overweight or obese forces your body into metabolic disease. And research shows that obesity can smash other pieces of metabolic health by causing high blood sugar, high blood pressure, high triglycerides, and low HDL cholesterol.

But there is a way to overcome all of this. And it doesn't come from Big Pharma's "polypharmacy plan." It wasn't created in a lab. It comes from a little-known fruit that contains an exclusive blend of plant chemicals — called polyphenols — that can restore full metabolic health.

Polyphenols Are Nature's Metabolism Booster

Polyphenols are natural compounds found in plants. And studies indicate they can work wonders for your metabolism — promoting a healthy body weight.

In a study published in the journal *Nutrients*, researchers recruited 573 participants. They measured participants' polyphenol levels using urine samples. The subjects were then divided into five groups based on the polyphenol levels they found.

Then, the team followed up after five years...

Researchers found a completely inverse relationship between polyphenol intake and body weight.⁹ In other words, those with the lowest amounts of polyphenols were more likely to be overweight or obese.

But those who consumed more polyphenols were able to get to — and maintain — a healthy body weight.

And that's not all.

Other studies have shown that polyphenols not only promote the healthy "good" fat in your body — but can even convert the unhealthy "bad" fat.

All Fat Is Not The Same – And Why It Matters

You may be surprised to learn that all body fat is not the same — it's not the same color. Each type works in its own way...some for you, and some against you.

White fat, the "bad" fat, stores energy and cushions your organs. Its large droplets accumulate in your abdomen, thighs, and hips. Most of the fat in your body is white fat. It's where your body stores excess calories for later use — how you put on weight. Too much white fat leads to obesity.¹⁰

Brown fat, also called brown adipose tissue or BAT, burns up to create heat to help regulate your temperature. You have a much smaller percentage of brown fat cells than white. This "good" fat also helps you burn up calories, regulate your blood sugar and insulin levels, controls fat metabolism — breaking down fat into smaller pieces for either storage or use.¹¹

Beige fat is a relatively new discovery. It's white fat that's converted into a sort of brown fat... and this special type of fat can help you avoid obesity.¹² But for that to work, your body needs to trigger that switch.

And that's where plant polyphenols from a fruit called citrus bergamot can really shine. It transforms white storage fat into beige burning fat. And animal research shows that polyphenol activation may reverse and prevent obesity.¹³

Discover Nature's Metabolism Fix

A unique bright citrus fruit grows in a tiny region on the southern coast of Italy. It looks similar to small oranges with greenish-yellow skin. But unlike the tangy sweet citrus fruit you're used to, this fruit is so bitter it makes grapefruit seem like candy.

That bitterness comes from a powerful polyphenol called naringin, and citrus bergamot contains loads of it. Scientists, especially obesity researchers, love studying naringin because it delivers like nothing else. Studies show that naringin fights obesity through multiple pathways such as^{14,15,16,17}

- Reversing insulin resistance
- Turning off hunger hormones
- Turning on "I feel full" hormones
- Activating AMPK, the enzyme that works like a metabolism on-switch
- Stimulating fat burning (a process called thermogenesis)
- Converting white fat into beige fat
- Preventing the formation of new fat cells

That's why citrus bergamot is so effective at promoting fat loss. One study found that people taking citrus bergamot for just 12 weeks saw their waistlines thin by 2.2 inches... their body fat percentages drop by 10%...along with tons of other health benefits.¹⁸



Citrus bergamot contains a powerful polyphenol called naringin that reverses insulin resistance. and prevents the formation of fat cells.

Another study that included 52 obese adults showed that citrus bergamot extract decreased body weight by 15% and reduced body mass index (BMI) by 16%.¹⁹

And that's just the beginning of what citrus bergamot can do.

Effectiveness Big Pharma Can't Touch

Not only does citrus bergamot work on more factors of metabolic syndrome than a handful of pharmaceuticals, but it also does a better job without causing negative side effects. That's because it contains dozens of polyphenols — not just naringin.

Some of its other potent compounds include rutin, a powerful antioxidant... melitidin and brutieridin, which promote healthy cholesterol balance... and naringerin, which increases insulin sensitivity and metabolic rate.^{20,21,22}

Citrus bergamot is packed with all of these natural plant chemicals, each working its own magic to restore ideal metabolic health.

One six-month clinical trial found that a citrus bergamot extract substantially improved many factors associated with heart disease for 80 patients including an almost 17% decrease in triglycerides and an 8% increase in HDL cholesterol.²³

A 12-week clinical trial showed that supplementing with citrus bergamot extract resulted in lower triglycerides, weight loss, and smaller waist circumference.²⁴

And in a study that looked at five clinical trials using citrus bergamot reported numbers Big Pharma could only dream about:²⁵

- 25% drop in total cholesterol levels
- 33% decrease in triglycerides
- 13% increase in HDL cholesterol
- 23% reduction in blood sugar

All in just 30 days.

And you better believe that Big Pharma is paying attention. In one study,²⁶ researchers

"Citrus bergamot is packed with all of these natural plant chemicals, each working its own magic to restore ideal metabolic health." noted that "the study of bergamot flavonoids offers a great opportunity for discovery of new therapeutic agents." That means they're looking for a way to turn citrus bergamot into a profitable new drug.

Citrus Bergamot Improves More Than Metabolism

The Mediterranean superfruit can restore your core metabolic health, and that's vital for feeling strong, energetic, and well. But its amazing potential doesn't stop there. Researchers are learning more about the powerful polyphenols locked inside this bitter fruit. And they're finding amazing results.²⁷

Inflammation. Bergamot is rich in flavonoids, which are natural anti-inflammatory agents. These compounds help inhibit the release of proinflammatory cytokines, reducing inflammation throughout the body. Research indicates that flavonoids in bergamot may reduce the production of certain enzymes linked to inflammation, such as COX-2 and iNOS.

Preliminary studies suggest that bergamot can help people with inflammatory conditions including arthritis and other autoimmune disorders. Its flavonoids may improve markers like CRP (C-reactive protein), a common marker of inflammation.

Liver Disease. Animal research showed that citrus bergamot resolved liver disease (nonalcoholic steatohepatitis, or NASH) along with lowering elevated liver enzymes, a sign of liver damage. It also reduced cholesterol levels and oxidative stress in just 11 weeks.²⁸

And in a human clinical trial, citrus bergamot was given to patients over 50 with fatty liver disease for 12 weeks. The results: Liver fat content decreased by 48.2%... nearly half... in that short time. Plus, the people taking citrus bergamot also saw an average weight loss of 4 pounds, lost 4 inches off their waistlines, and significantly decreased liver enzymes.²⁹ **Cancer.** Along with anti-inflammatory and antioxidant properties, citrus bergamot contains powerful anti-cancer compounds. Research shows that it stops cancer cells from growing and multiplying while triggering their cell death. It can also prevent cancer cells from sticking together, which stops them from forming tumors. Citrus bergamot showed effectiveness against several kinds of cancer cells including:³⁰

- Liver
- Neuroblastoma (a nerve cancer)
- Lung
- Colon
- Breast

Erectile Dysfunction. While many pharmaceuticals come with a very undesirable side effect — erectile dysfunction — citrus bergamot does the opposite. In a 4-month clinical trial, citrus bergamot restored erectile function in diabetic men with moderate to severe ED symptoms.³¹

And So Much More. Researchers have just begun to uncover the many actions of citrus bergamot. There are studies going on all the time on both the whole fruit extract and its many individual polyphenols. Continuing research is looking into how effectively citrus bergamot can treat: ^{32,33,34,35,36,37}

- Rheumatoid arthritis
- Cognitive function
- Alzheimer's disease
- Bacterial infections
- Viral infections
- Age-related eye disorders

From preventing obesity to moving all of your numbers in the right direction to taming inflammation and oxidative stress, taking citrus bergamot can do more for your health than a fistful of Pharma pills.

It can be taken in a few different forms, depending on your preference.

Here's what I suggest:

3 Simple Ways To Get Bergamot's Metabolism-Boosting Benefits

1. Take It As A Supplement. Citrus bergamot is available as both a capsule or as a powder that can be mixed with water or juice. I recommend taking 500 mg to 1,000 mg daily to restore your metabolic health.

Take it with food to improve absorption and reduce any digestive discomfort. And look for a product that has a Bergamot Polyphenol Fraction (BPF) — the concentration of key components responsible for its health benefits — of between 38% and 47%.

2. Sip It As Juice. While bergamot originated in Southeast Asia, today 80% comes from the province of Calabria in southern Italy, particularly the coastal areas around the Ionian Sea. In fact, it's so important to the region that it's a symbol of the city.

Fresh fruit can be found in select international markets or ordered online. Because they have a short harvest season, they're only available from late November through January.

Bottled bergamot juice is available in select health food stores and online. Look for a product with no added sugars, no preservatives, and no artificial additives.

With a tart taste similar to lemon or grapefruit juice, I suggest diluting 2 to 4 ounces of the juice in a glass of water and sweetening with a bit of raw sugar or organic honey.



Fresh bergamot can be found in select international markets. And bottled juice is available in select health food stores.



3. Enjoy It As A Tea. This is one of my favorite ways to enjoy bergamot. Flavored teas including Earl Grey, which contains bergamot oil — are widely available in most grocery stores. But I suggest making your own. Here's an easy recipe I use for fresh iced tea:

Bergamot Iced Tea

Makes 8 cups

Ingredients

- 2 cups of water
- 3 bags of Earl Grey tea
- ¹/₂ cup bergamot juice
- 4 additional cups of distilled water
- Raw sugar or organic honey, to taste

Directions:

- 1. Bring 2 cups of water to a boil.
- 2. Add 3 bags of tea and remove from heat. Let sit for 4 minutes.
- 3. Remove the tea bags and return to a boil.
- 4. Remove from heat and let cool slightly.
- 5. Pour the tea into a pitcher. Stir in ½ cup bergamot juice and the remaining 4 cups of water.
- 6. Add sugar or honey to taste.
- 7. Refrigerate until thoroughly chilled.

References

 Liang X, et al. "Prevalence of metabolic syndrome in the United States National Health and Nutrition Examination Survey." 2011-18. *Postgrad Med J.* 2023 Aug 22;99(1175):985-992.
Rus M, et al. "Prevalence and risk factors of metabolic syndrome: a prospective study on cardiovascular health." *Medicina (Kaunas).* 2023 Sep 25;59(10):1711.

3. Li W, et al. "Incidence and long-term specific mortality trends of metabolic syndrome in the United States." *Front Endocrinol (Lausanne).* 2023 Jan 17;13:1029736.

4. Varghese D, et al. "Polypharmacy." 2024 Feb 12. Treasure Island (FL): StatPearls Publishing; 2024 Jan.

5. Wang X, et al. "Prevalence and trends of polypharmacy in U.S. adults, 1999-2018." *Glob Health Res Policy*. 2023 Jul 12;8(1):25.

6. Karra P, et al. "Metabolic dysfunction and obesity-related cancer: Beyond obesity and metabolic syndrome." *Obesity (Silver Spring).* 2022 Jul;30(7):1323-1334.

7. Li W, et al. "Association between metabolic syndrome and mortality: prospective cohort study." *JMIR Public Health Surveill*. 2023 Sep 5;9:e44073.

8. Moghadam-Ahmadi A, et al. "Association between metabolic syndrome and stroke: a population-based cohort study." *BMC Endocr Disord*. 2023 Jun 6;23(1):131.

9. Guo X, et al. "Polyphenol levels are inversely correlated with body weight and obesity in an elderly population after 5 years follow up (the randomized PREDIMED study)." *Nutrients*. 2017;9(5):452.

10. Reyes-Farias M, et al. "White adipose tissue dysfunction in obesity and aging." *Biochem Pharmacol.* 2021 Oct;192:114723.

11. Maliszewska K, et al. "Brown adipose tissue and its role in insulin and glucose homeostasis." *Int J Mol Sci.* 2021 Feb 3;22(4):1530.

12. Cheng L, et al. "Brown and beige adipose tissue: a novel therapeutic strategy for obesity and type 2 diabetes mellitus." *Adipocyte*. 2021 Dec;10(1):48-65.

13. Nucera S, et al. "The effect of an innovative combination of bergamot polyphenolic fraction and *cynara cardunculus* 1. extract on weight gain reduction and fat browning in obese mice." *Int J Mol Sci.* 2023 Dec 22;25(1):191.

14. López-Almada G, et al. "Could naringenin participate as a regulator of obesity and satiety?" *Molecules*. 2023 Feb 2;28(3):1450.

15. Li X, et al. "Naringin ameliorates obesity via stimulating adipose thermogenesis and browning, and modulating gut microbiota in diet-induced obese mice." *Curr Res Food Sci.* 2024 Jan 18;8:100683.

16. Dayarathne LA, et al. "The effects of naringenin and naringin on the glucose uptake and AMPK phosphorylation in high glucose treated HepG2 cells." *J Vet Sci.* 2021 Nov;22(6):e92.

17. Lo Furno D, et al. "A citrus bergamia extract decreases adipogenesis and increases lipolysis by modulating ppar levels in mesenchymal stem cells from human adipose tissue." *PPAR Res.* 2016;2016:4563815.

18. Fogacci F, et al. "Metabolic and vascular effect of a new standardized bergamot phytocomplex: a three-arm, placebo controlled, double-blind clinical trial." *Archives Med Sci.* 2023;19(5):1228-1235.

19. Capomolla AS, et al. "Atherogenic index reduction and weight loss in metabolic syndrome patients treated with a novel pectin-enriched formulation of bergamot polyphenols." *Nutrients*. 2019 Jun 4;11(6):1271.

20. Enogieru AB, et al. "Rutin as a potent antioxidant: implications for neurodegenerative disorders." *Oxid Med Cell Longev*. 2018 Jun 27;2018:6241017.

21. Murugesan N, et al. "Naringenin increases insulin sensitivity and metabolic rate: a case study." *J Med Food*. 2020 Mar;23(3):343-348.

22. Di Donna L, et al. "Recycling of industrial essential oil waste: Brutieridin and Melitidin, two anticholesterolaemic active principles from bergamot albedo." *Food Chem.* 2011;125(2):438-441.

23. Toth PP, et al. "Bergamot reduces plasma lipids, atherogenic small dense LDL, and subclinical atherosclerosis in subjects with moderate hypercholesterolemia: a 6 month prospective study." *Front Pharmacol.* 2016 Jan 6;6:299.

24. Cai Y, et al. "Effects of 12-week supplementation of citrus bergamia extracts-based formulation CitriCholess on cholesterol and body weight in older adults with dyslipidemia: a randomized, double-blind, placebo-controlled trial." *Lipids Health Dis.* 2017 Dec 22;16(1):251.

25. Nauman M and Johnson J. "Clinical application of bergamot (*Citrus bergamia*) for reducing high cholesterol and cardiovascular disease markers." *Integr Food Nutr Metab.* 2019 Feb 28;6(2):10.

26. Cappello AR, et al. "Bergamot (citrus bergamia risso) flavonoids and their potential benefits in human hyperlipidemia and atherosclerosis: an overview." *Mini Rev Med Chem.* 2016;16(8):619-29.

27. Nesci S, et al. "Enjoy your journey: the bergamot polyphenols from the tree to the cell metabolism." *J Transl Med.* 2021 Nov 4;19(1):457.

28. Musolino V, et al. "Bergamot polyphenols improve dyslipidemia and pathophysiological features in a mouse model of non-alcoholic fatty liver disease." *Sci Rep. 2020;***10**(2565).

29. Ferro Y, et al. "Randomized clinical trial: bergamot citrus and wild cardoon reduce liver steatosis and body weight in non-diabetic individuals aged over 50 years." *Front Endocrinol (Lausanne).* 2020 Aug 11;11:494.

30. Adorisio S, et al. "Biological effects of bergamot and its potential therapeutic use as an antiinflammatory, antioxidant, and anticancer agent." *Pharm Biol.* 2023 Dec;61(1):639-646.

31. Mollace V, et al. "Bergamot polyphenolic fraction counteracts erectile dysfunction occurring in patients suffering from type 2 diabetes." *PharmaNutrition*. 2016:S41-S46.

32. Marino, A, et al. "Role of natural antioxidants and potential use of bergamot in treating rheumatoid arthritis." *PharmaNutrition*. April 2015;3(2):53-59.

33. Bruno A, et al. "Bergamot Polyphenolic fraction supplementation improves cognitive functioning in schizophrenia: data from an 8-week, open-label pilot study." *J Clin Psychopharmacol.* 2017 Aug;37(4):468-471.

Currò M, et al. "Citrus bergamia juice extract attenuates β-amyloid-induced pro-inflammatory activation of thp-1 cells through MAPK and AP-1 pathways." *Sci Rep.* 2016 Feb 8;6:20809.
Fratianni F, et al. "Polyphenols, antioxidant, antibacterial, and biofilm inhibitory activities of peel and pulp of citrus medica l., citrus bergamia, and citrus medica." *Molecules*. 2019 Dec 13;24(24):4577.

36. Zhou M, et al. "Bergamottin, a bioactive component of bergamot, inhibits SARS-CoV-2 infection in golden Syrian hamsters." *Antiviral Res.* 2022 Aug;204:105365.

37. Maiuolo J, et al. "Potential properties of natural nutraceuticals and antioxidants in agerelated eye disorders." Life (Basel). 2022 Dec 27;13(1):77.

Beat The Energy Crisis Affecting All Americans

Mitochondria are the most important thing I'm researching for my practice right now. These are the energy-producing organelles that are located in every cell in your body. They convert your food into fuel and power your organs.

They act like batteries to provide the energy your cells need to function.

Your body is filled with millions of these tiny organelles. They control your body's master energy system, which lets you see, hear, and feel. They beat your heart, stimulate your sex drive, and allow you to think. They power every function and organ in your body.

These are the power plants that turn fuel into energy. At the same time, they filter the cellular "sludge" that leaves your cells bloated and ineffective.

Every one of your cells has at least one of these power plants. The average cell has 200.

And cells for "energy hungry" organs like your heart and brain can have over 10,000.

But your mitochondria become weaker as you get older, and then they die off. You lose your capacity to make energy and your physical and mental performance declines with your aging.^{1,2,3}

In addition, the more energy these little engines put out, the more waste products they produce.

Oxidation breaks down mitochondria so they don't run as well or produce as much power. In fact, they are the primary site for the production of free radicals that produce oxidation. And that means they damage their own DNA.

That DNA damage causes the mitochondria to misfire. Your energy takes a dive.



Healthy mitochondria will give your body all the energy you'll ever need.

And research shows this malfunction is the root of many chronic diseases of aging, including:

- Diabetes
- Strokes
- Heart disease
- Dementia and Alzheimer's
- Parkinson's disease
- Migraines
- Nerve pain
- Loss of muscle control and balance
- Chronic fatigue syndrome
- Fibromyalgia
- Liver disease
- Bipolar disorder

All The Energy You Will Ever Need

If you keep your mitochondria healthy, your body will have all the energy it will ever need to stay strong and ward off the diseases of aging. But as you age you have fewer of these engines, and they are undersized and degraded. Unless you do something about it, you get all the energysapping consequences of aging.

Feeling weak and having a lack of energy production from the degrading of your mitochondria is called "bioenergetic aging."

Bioenergetic aging brings about a constant decline in your body's ability to generate the energy you need to do even simple things.

Australian scientist Anthony Linnane observed this in a groundbreaking study. He looked at human mitochondria and compared the boundless energy of a child with that of an older person.

When he looked at photographs of aging cells, he was shocked to find that less than 5% of the mitochondrial DNA from the muscle tissue of a 90-year-old subject was intact.^{4,5}

Over 95% of the mitochondria had degraded they got worse and lost power! In other words, degenerating mitochondria is an early sign of aging.

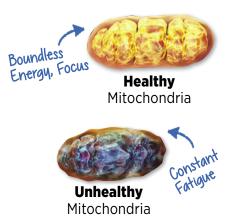
Feel More Energetic Fast

The good news is we have now found a way to reverse this process of degrading mitochondria.

You do it through mitochondrial biogenesis.

What that means is that you help your body make new cellular power plants — new mitochondria — while you also renew the power of your existing ones.

This is very important because if you don't replace and renew your mitochondria, you could lose your ability to generate any energy.



Our primal ancestors regularly tapped into the body's ability to regenerate mitochondria. Because they were hunter-gatherers they couldn't always predict when their next meal would be. Some days they had very little to eat. Other days they feasted.

But that periodic hunger didn't drain their energy. It increased their energy. Bouts of food shortages kicked up the energy production in their mitochondria.

Research shows that high intensity exertion naturally creates more energy-producing mitochondria, especially in the brain and heart.⁶ That is why just one session of intense exercise can make you feel more energetic fast.

In other words, the harsh life that our primal ancestors had — with periods of fasting and intense exertion — triggered energy bursts by boosting mitochondrial biogenesis.

We lead a much easier life than our ancestors. We have access to abundant calories all the time. But in a way we have been robbed of our natural way of rebooting our energy.

Two Super Nutrients Your Mitochondria Must Have

At my clinic, I help my patients improve their health span and fight the diseases associated with aging by making sure they have plenty of healthy mitochondria with the power to produce robust energy.

For more than a decade now, I've been boosting my patients' mitochondria with two supernutrients — CoQ10 and pyrroloquinoline quinone, or PQQ.

I was one of the first to realize Coenzyme Q10 provides the "spark" your mitochondria need to function. It is one of the first things I recommend to my patients. CoQ10 was also the first super nutrient we identified to have an immediate connection to mitochondrial health.

I noticed an immediate and startling change in my patients who took it. They had greater energy, stamina, and strength than ever before. CoQ10 is essential for your cells' mitochondria.

CoQ10 Is A "Fountain of Youth" For Your Cells

Energy production at the cellular level begins when the body turns the food we eat into nutrients (glucose, amino acids, and fatty acids) that mitochondria can use to produce energy. Within the cells, the mitochondria manufacture ATP (adenosine triphosphate). ATP is literally your body's source of energy. ATP is the fuel cells burn to perform their tasks.

To make energy, the mitochondria use plenty of CoQ10. This is essential to keep the powerhouses of the cells — the mitochondria — working efficiently.

In this way, CoQ10 provides a virtual "Fountain of Youth" for your cells.

When cells run out of CoQ10, the mitochondria simply cannot produce enough energy to meet the body's demands. When the body is well stocked with CoQ10, it can operate efficiently.

When stockpiles of CoQ10 run low, the mitochondria are less efficient and they may produce adenosine diphosphate (ADP), which is a less potent fuel.

Over time, running your body on cheap fuel takes its toll, damaging the mitochondria and contributing to a growing sense of fatigue, weakness, and eventually, disease.

When your body is young, your mitochondria work tirelessly to produce the abundant energy associated with youth. Over the years, however, your mitochondria age and show signs of wear and tear, just as the rest of the body does. And when this happens, your mitochondria can grow "hard" and less efficient at producing ATP.

When your mitochondria break down, they produce less energy. If this happens long enough, you experience chronic fatigue. This systemic energy crisis can compromise the immune system as a whole, leaving your body more vulnerable to attack from bacteria, viruses, and additional pathogens.

Low CoQ10 Leads To Malfunctioning Mitochondria

A number of studies found that people who suffer from ailments associated with aging including cardiovascular disease, Parkinson's disease, and Alzheimer's disease — all tend to have abnormally low levels of CoQ10 and high levels of mitochondria failure.

My clinic has measured hundreds, if not thousands, of CoQ10 levels with some surprising results:

- Young people (in their twenties and younger) almost always have adequate levels of CoQ10.
- CoQ10 deficiencies are common in people in their 40s and beyond.
- Long-duration endurance exercisers tend to have lower levels of CoQ10.
- Deficiencies in CoQ10 are very common in patients with heart disease, high blood pressure, diabetes, or low HDL cholesterol.
- CoQ10 levels are often low in those avoiding red meat and extremely low in strict vegans.

If you are in one of these categories, increasing CoQ10 can make a dramatic difference in your energy level and cardiovascular health.

CoQ10 sparks your aging mitochondria to make more energy. It also acts as a potent free radical scavenger. It soaks up oxidized molecules before they can cause damage.

But CoQ10 doesn't quite finish the job. The key to staying young is having MORE mitochondria that are healthy enough to actually produce energy. That requires PQQ.

Make More Mitochondria With PQQ

The good news is that not only can you turbocharge your existing mitochondria, but you can also make new mitochondria. Recent preclinical research reveals that a littleknown super nutrient called pyrroloquinoline quinone, or PQQ, triggers your cells to build healthy new mitochondria.^{7,8}

Researchers at the University of California at Davis fed mice a diet supplemented with PQQ, and they grew a staggering number of new mitochondria in just eight weeks.⁹

This allows your cells to produce more fuel, so your cell systems work more energetically and efficiently.

PQQ Is A Powerful Mitochondria Protector

PQQ is a remarkably strong antioxidant. It shields the mitochondria in your heart from the stress of making all that energy day in and day out.

And that is a good thing because mitochondria are fragile. They don't just degrade with the passing of the years. Mitochondria are especially vulnerable to our environment because they don't have all the DNA protection and repair functions the rest of the cell does.

This worsening of your mitochondrial performance is most evident in the heart cells (cardiomyocytes), brain cells (neurons) and muscle cells (myocytes).

PQQ neutralizes free radicals that damage and kill off your mitochondria. That makes PQQ's role as "protector" of mitochondria just as important as its ability to make new ones. In one study five men and five women took a single dose of around 10 to 15 milligrams of PQQ. Then researchers measured changes in their antioxidant capacity.

Over the next two days, PQQ significantly reduced their markers for oxidative stress.¹¹

Even better, in the second part of the study, the people got daily PQQ for three days. All of them had increases in metabolites showing their mitochondria were working much more efficiently. They got more energy with less effort. Which means PQQ is like a whole-body energy tune-up.

Plus, PQQ works harder and longer than any other antioxidant. It is so stable and strong it works for thousands of antioxidant cycles.¹² Other related antioxidants break down quickly. But PQQ keeps right on protecting you hundreds of times longer.

Your mitochondria are vulnerable to the environment. But powerful antioxidants like PQQ can neutralize the damage caused by free radicals.

That all adds up to more energy. This amazing nutrient can triple... even quadruple... your energy in just a few days.

Increase Your Mitochondria The Way Your Ancestors Did — With The Right Foods

Supporting your mitochondria with CoQ10 and PQQ is easy.

PQQ Can Rejuvenate And Restore Your Mitochondria In Three Ways:

1. First, PQQ triggers a key transcription factor protein (CREB) that directly fuels mitochondrial biogenesis. In other words, it jumpstarts the growth and replication of new mitochondria. Stronger mitochondria, and more of them, produce more cellular ATP. The more energy in a cell, the better it does its job.

2. Secondly, mitochondria have their supply of DNA, and once you supply them with this super nutrient, they start multiplying within each of your cells. PQQ triggers your aging cells to grow new mitochondria. And it is this process of mitochondrial biogenesis that halts and reverses cell aging. PQQ is the only nutrient that can do this.

3. Finally, PQQ also protects the existing mitochondria in your cells by working to neutralize free radicals — which is what destroys mitochondria in the first place.¹⁰

Here's what I suggest:

- The best food sources of CoQ10 come from the organs of free-range cattle and wild game. Pork heart and beef heart, for example, contain about 120 mcg per gram of CoQ10. Beef liver has 39 mcg. Sadly, we don't eat these foods of our ancestors much anymore.
- Your next best sources are wild-caught game and beef. But be sure your beef comes from grass-fed meat, which has much more CoQ10 than grain-fed, feedlot meat.
- Rounding out the list are olive oil, pastured pork and chicken, wild-caught mackerel and herring, pastured eggs, lard, and butter.

When it comes to PQQ, here's what I recommend:

1. **Kiwi.** This tropical fruit is one of the most popular dietary sources for PQQ. A single kiwi contains as much as 2 micrograms. The PQQ content isn't affected by ripeness — so you can enjoy them at any time.

2. **Parsley.** Parsley is one of the richest sources of PQQ. Just five sprigs provide 10% of your daily recommended PQQ intake.¹³ When preparing a meal, try adding it to grilled vegetables, roasted meats, stews, and soups. But don't chop it up too finely — larger pieces provide more flavor.

3. **Organ Meat.** Once again, organ meat proves to be a powerhouse for natural, dietary energy. In addition to being a great source for CoQ10 as discussed earlier, organ meats like liver and kidney provide the biggest amount of PQQ per serving — as much as 10 micrograms per 100g.

4. **Natto.** This naturally fermented soybean dish popular in Japan has the most PQQ of any

plant food. It can provide around 6 micrograms of PQQ in a 100 g serving. The fermentation process for natto helps produce an enzyme known as *nattokinase*, which can



prevent blood clots. This Japanese dish is also linked to heart and bone health.

5. **Green Peppers.** A 100-gram serving contains almost 3 micrograms of PQQ. Green peppers can be eaten raw or cooked. But eating them raw is the best way to get their nutritional punch. I recommend adding them to salads, stir fries, stews, and soups. Green tea, papaya, spinach, carrots, sweet potatoes, and carrots are also good sources of PQQ.

References

1. Bruce A, et al.	"Molecular Biolog	y of the Cell."	New York,	NY: Garland	Publishing,
Inc.;1994.					

- 2. Voet D, et al. "Fundamentals of Biochemistry: Life at the Molecular Level." 2nd ed. New Jersey: John Wiley and Sons, Inc.; 2006:547.
- 3. Pike RL, et al. "Nutrition: An Integrated Approach." New York, NY: Prentice-Hall; 1984:450-84.

 Linnane A, et al. "The universality of bioenergetic disease: age-associated cellular bioenergetic degradation and amelioration therapy." Ann N Y Acad Sci. 1998;854:202-13.

5. Tao R, et al. "Pyrroloquinoline quinone preserves mitochondrial function and prevents oxidative injury in adult rat cardiac myocytes." *Biochem Biophys Res Commun.* 2007;363(2):257-62

6. Steiner J, et al. "Exercise training increases mitochondrial biogenesis in the brain." *J Appl Physiol.* 2011 Oct;111(4):1066-71.

7. Ebeling MC, et al. "Improving retinal mitochondrial function as a treatment for agerelated macular degeneration." *Redox Biol.* 2020 Jul;34:101552.

 Lu Jet al. "Mitochondrial regulation by pyrroloquinoline quinone prevents rotenoneinduced neurotoxicity in Parkinson's disease models." *Neurosci Lett.* 2018 Nov 20;687:104-10.

9. Stites T, et al. "Pyrroloquinoline Quinone Modulates Mitochondrial Quantity and Function in Mice." *J. Nutr.* February 2006 vol. 136 no. 2 390-396.

10 Wu JZ, et al. "Pyrroloquinoline quinone enhances the resistance to oxidative stress and extends lifespan upon DAF-16 and SKN-1 activities in C. elegans." *Exp Gerontol.* 2016 Jul;80:43-50.

11. Harris C, et al. "Dietary pyrroloquinoline quinone (PQQ) alters indicators of inflammation and mitochondrial-related metabolism in human subjects." *J Nut Biochem* 2013; Vol 24, Issue 12, Pages 2076-2084.

12. Rucker R, et al. "Potential Physiological Importance of Pyrroloquinoline Quinone." *Alternative Medicine Review* 2009; 14(3).

13. Mohan A. "Pyrroloquinoline quinone biosynthesis in plants." *Phytochemistry Surveys*. 2019;18(1):1-16.

Al Sears, MD

Al Sears, MD, CNS, is a medical doctor and one of the nation's first board-certified anti-aging physicians.

As a board-certified clinical nutritionist, strength coach, ACE-certified fitness trainer and author, Dr. Sears enjoys a worldwide readership and has appeared on more than 50 national radio programs, ABC News, CNN and ESPN.

In 2010, Dr. Sears unveiled his proven anti-aging strategies in *Reset Your Biological Clock*. As the first U.S. doctor licensed to administer a groundbreaking DNA therapy that activates the gene that regulates telomerase, Dr. Sears made history by bringing telomere biology to the general public.

Dr. Sears shocked the fitness world by revealing the dangers of aerobics, "cardio" and long-distance running in his book, *PACE: The 12-Minute Fitness Revolution*.

In 2004, Dr. Sears was one of the first doctors to document the true cause of heart disease and expose the misguided and often fatal drugs-and-surgery approach to heart health.

In The Ageless Heart Manual: Advanced Strategies to Reverse Heart Disease and Restore Your Heart's Pumping

Power, Dr. Sears outlines the easy-to-follow solution that effectively eliminates your risk of heart disease, high blood pressure and stroke.

An avid lecturer, Dr. Sears regularly speaks at conferences sponsored by the American Academy of Anti-Aging Medicine (A4M), the American College for the Advancement of Medicine (ACAM) and the Age Management Medicine Group (AMMG).

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