

RICK FISCHER

---

# MINERAL SECRETS TO OPTIMAL HEALTH



*From the creator of CopperToxic.com and Founder of  
the Mineral Mastery Nutrition Training Program*

**An Introduction to Mineral Based Health Concepts  
including Copper Toxicity, Detoxification,  
and the Importance of HTMA**

EBOOK EDITION AS A PREVIEW TO THE MINERAL MASTERY COURSE

"Trace elements (minerals) are more important than are the vitamins, in that they cannot be synthesized by living matter. [Minerals] are the spark-plugs in the chemistry of life."

~Dr Henry Schroeder, M.D.

This e-book is a greatly simplified version of course content from the MineralMastery.com nutrition course.

This e-book presents basic concepts.

For a more complete understanding of the concepts mentioned here, the value of taking the Mineral Mastery course cannot be understated - this is a vital health education for every practitioner, and indeed every human.

**DISCLAIMER: The information provided in this eBook is not "medical advice" and is not meant to treat, cure, or diagnose any condition. Always check with your doctor first before making changes to medications or supplements. The information herein is offered as general education only, to empower you to better manage your health.**

Copyright © 2021 by Rick Fischer. All rights reserved.

This ebook or any portion thereof may not be reproduced, relabeled, or used in any commercial manner whatsoever without the express written permission of the author.

*Advancing Nutrition Education. Empowering Individual Health.*

**[www.MineralMastery.com](http://www.MineralMastery.com)**

Copyright Rick Fischer



# TABLE OF CONTENTS

|   |    |
|---|----|
| Welcome.....                            | 4  |
| Why This Matters .....                  | 5  |
| Calcium and Magnesium .....             | 8  |
| Testing Mineral Status .....            | 10 |
| Sodium and Potassium .....              | 12 |
| Copper and Zinc .....                   | 14 |
| Quick Snapshots of Iron and Iodine .... | 17 |
| Preview to Some of the Vitamins .....   | 18 |
| Toxic Metals .....                      | 19 |
| Detoxing: Copper .....                  | 20 |
| Detoxing: Toxic Metals .....            | 21 |
| The Wheel of Human Energy .....         | 22 |

# WELCOME!

Whether you're a practitioner supporting the health of clients, or just a regular individual looking for answers or ways to protect and optimize your health, this rarely taught mineral knowledge provides an essential foundation to nutrition education. Countless people are needlessly struggling health-wise, often simply because this information is not more widely known.

Beginning with the launch of CopperToxic.com in 2014, Rick's work on copper has served as a key educational resource for countless practitioners and health writers, and has brought into broader public awareness the understanding of copper toxicity. Through that work and years of research, plus through the HTMA work Rick does in clinical practice, as well as through the mineral-based health education he teaches in Mineral Mastery, Rick has dedicated his life's work to supporting the empowerment of health with this mineral knowledge.

*My hope is that this e-book's introduction to minerals (and HTMA) lights the spark of curiosity within you to learn more...for yourself, your clients, and the loved ones you care for.*

## RICK FISCHER

[www.CopperToxic.com](http://www.CopperToxic.com)  
Founder, Copper Toxicity Researcher

[www.MineralMastery.com](http://www.MineralMastery.com)  
Founder, Instructor, Mineral Educator

[www.MineralsandHealth.com](http://www.MineralsandHealth.com)  
HTMA-Based Wellness Services

[www.HTMAVirtualSummit.com](http://www.HTMAVirtualSummit.com)  
Co-Founder, Supporting Excellence in HTMA



*Advancing Nutrition Education. Empowering Individual Health.*

[www.MineralMastery.com](http://www.MineralMastery.com)

Copyright Rick Fischer

MINERAL



# WHY THIS MATTERS

A young woman develops depression after going on a non-hormonal copper IUD, and is automatically prescribed an anti-depressant...

Though his medical tests looked normal, an HTMA test showed a man's severe magnesium deficiency, placing him at high risk for an imminent heart attack...

A loving relationship and family is shattered because of the emotional numbing effect of a high calcium shell - their relationship counselor completely unaware of this mineral connection...

A blood test showed all his minerals within the 'healthy' reference range, despite the patient's HTMA showing clear imbalances which helped explain his symptoms. Similarly, a woman's thyroid panel comes back normal, while the HTMA test dismissed by her doctor revealed the very mineral pattern that explained her hypo-thyroid symptoms...

After her daughter's suicide, a heartbroken mother collects her daughter's hair from the morgue and discovers an extremely high copper level through HTMA testing, despite her daughter's physician reassuring her she had been healthy...

The stories are endless.

Case after case, patients with symptoms are told their blood results look normal. Day after day, people adopt trendy diets, never conscious of the bio-individuality that makes one person's medicine another person's poison. Time and again, people are led to believe that eating 'healthy' is all one has to do to avoid mineral deficiencies and imbalances. Every day, people's health, relationships, and lives are at stake because the information you're about to learn is overlooked in most mainstream health and nutrition messaging.

**It's time...to advance our understanding...**

*Advancing Nutrition Education. Empowering Individual Health.*

[www.MineralMastery.com](http://www.MineralMastery.com)

Copyright Rick Fischer

MINERAL



Health empowerment. It begins with first shifting away from our current 'disease management' approach, which typically:

- responds to symptoms after they appear
- places priority on pharmaceuticals and medicines rather than nutrition and holistic support, even in non-acute situations
- treats the symptom rather than the underlying cause
- gives 'disease labels' that are 'either or'. Either healthy, or not.
- places the responsibility of healing in the care giver's hands.

...and moving into what could be considered more of a true 'health care' approach:

- a preventative approach, rather than reactionary - supporting health before symptoms appear
- placing greater attention on nutrition training in medical school
- providing enhanced training on the health effects of micro-nutrient imbalances (such as what Mineral Mastery teaches)
- understanding the mind <--> body connection
- viewing health along a continuum versus the 'all or nothing' labels of 'disease or healthy'. (For example, many people don't feel optimal and are seeking answers yet they don't fall within the label of a specific disease. The continuum recognizes these people where they are at, rather than dismissing them as "you're fine".)
- Supporting individual responsibility by empowering the individual with tools and knowledge they can use to protect and improve their own health.

As important as the health field is, it is not without its share of myths and fallacies, many of which are so ingrained in public perception that it would even seem odd to begin questioning. Among these myths:

- Blood tests are a reliable marker of one's total mineral status
- Everyone should be supplementing more Vitamin D
- Sodium is bad
- Detoxing is not necessary because the body regulates itself fine
- Adrenal fatigue doesn't exist
- More calcium is important as we age to prevent osteoporosis
- Nutrition can't possibly contribute to mental illness
- Vegetable sources of Vitamin A are sufficient
- A non-hormonal copper IUD is a safe alternative to the Pill
- Taking more iron is needed to fix anemia
- Taking a multi-vitamin will guard against vitamin deficiencies
- "Our magic supplement / protocol / diet..." is good for everyone
- Chelation is needed to detox heavy metals
- My doctor would tell me if I needed specific mineral support

Most people believe in at least a few of these myths. It's possible that you might even feel frustration reading the above list if your background has convinced you at least some of the above are true.

That is precisely the reason why Mineral Mastery is so important. Most health and nutrition courses are a repetition of the same conversation. Mineral Mastery is different, as it dares to shed light on areas of nutritional science that very few have been taught, yet which hold profound answers ...for those who are open to learning.

**"Mineral deficiencies  
are responsible for a host of  
health problems, which are  
incorrectly treated by drugs."**

Dr. Robert Thompson, MD

*Advancing Nutrition Education. Empowering Individual Health.*

**[www.MineralMastery.com](http://www.MineralMastery.com)**

Copyright Rick Fischer





# CALCIUM and MAGNESIUM

Magnesium is involved in hundreds of enzymatic reactions which affect pretty much all aspects of life. Every cell requires adequate magnesium to function, otherwise the cell dies, and life itself would not exist.

Magnesium plays a vital role in:

- heart health
- energy production
- detoxification
- stress reduction
- supporting nutrient balances
- bone health
- dental health
- mental health
- controlling inflammation
- blood sugar transport
- nerve function
- ...and many more essential functions

**"Magnesium is the most critical mineral required for electrical stability of every cell in the body. A magnesium deficiency may be responsible for more diseases than any other nutrient."**

~Dr. Norman Shealy

Yet, subclinical magnesium deficiency is so commonly overlooked, and represents a public health crisis when not properly addressed or tested for. The vast majority of people have some degree of cellular magnesium deficiency, rarely picked up in conventional blood testing.

When you recognize all the factors (as we get into in the course) that contribute to magnesium deficiency, that's the first step in empowering yourself to optimize your own level!



*As important as magnesium is, it's important to also know when NOT to supplement this mineral... as you'll learn!*

*Advancing Nutrition Education. Empowering Individual Health.*

[www.MineralMastery.com](http://www.MineralMastery.com)

Copyright Rick Fischer



# CALCIUM and MAGNESIUM

When it comes to calcium on the other hand, numerous factors have contributed to over-calcification amongst much of the population.

We're told to take more calcium as we age to protect our bones, while calcium carbonate is often promoted to pregnant women to take. Many foods are extra-fortified with calcium as if it's a great thing...

The danger is not so much with the calcium itself, but with the widespread imbalance that exists between calcium and magnesium. A vast list of factors has contributed to an excessively high ratio of calcium to magnesium amongst much of the population. Therein lies of the problem...without magnesium, calcium becomes more detrimental than healthy.

Recognize any of these symptoms?

- unstable blood sugar
- sugar cravings
- muscle spasms / twitches
- depression
- emotional numbing
- osteoporosis
- blood clots
- kidney or gallstones
- frequent urination
- low Vitamin D
- joint stiffness...

**"Most people, including M.D.s, do not understand the importance of balancing calcium and magnesium at the cellular level. Calcium cannot build bones or prevent osteoporosis without adequate levels of magnesium."**

~Dr. Carolyn Dean, MD

There just might be a calcium / magnesium imbalance at work, and many of our daily habits are just making that imbalance worse....until we recognize them!

*Advancing Nutrition Education. Empowering Individual Health.*

[www.MineralMastery.com](http://www.MineralMastery.com)

Copyright Rick Fischer

MINERAL



# TESTING MINERAL STATUS

Blood is the most common and "accepted" method for testing. It is the basis for most patient testing as well as most nutritional and health studies. Yet, consider:

**The blood level is HOMEOSTATIC and does NOT REFLECT the stored tissue levels of metals, or minerals at the CELLULAR LEVEL.**

**Our biochemistry happens in the cell, NOT the blood transport system!**

This means that most mineral deficiencies and metal toxicities that exist in the body are not seen in blood. This translates into the vast majority of patients and people being completely unaware of the imbalances occurring within their own body, especially when it comes to minerals and toxic metals.

Then there's the option of urine testing.

**Urine testing shows what the body is EXCRETING.**

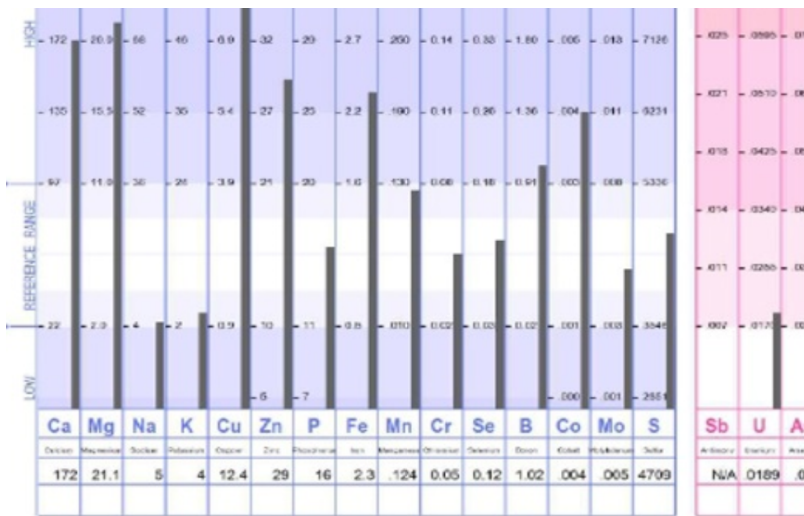
It therefore isn't ideal for picking up cellular deficiencies, nor do tightly stored metals always show up in urine. Provoked urine testing using chelating agents will paint a better picture of excess levels, however forcing toxins out through the kidneys is not necessarily a safe option.

**"Medical science does not usually detect a potassium deficiency. Not until it's too late. 98% of all potassium is in the cells, not the blood."**  
~Dr. Robert Selig

# TESTING MINERAL STATUS

While blood can beneficially show the extracellular transport of nutrients, Hair Tissue Mineral Analysis (HTMA) better reflects the intracellular metabolic processes occurring. In addition:

- HTMA is not subject to the hourly fluctuations that influence blood
- HTMA shows minerals in relation to each other. (This is a vital concept for understanding ratios and patterns that correlate to health conditions).
- HTMA is the test of choice by the US EPA for toxic metal exposure
- HTMA can provide early detection of health trends long before other methods
- the hair itself remains stable for biopsy for months, even years.



*This sample HTMA chart, for example, shows clear hypofunction (or expression thereof) of both the adrenals and thyroid, together with copper toxicity. It provides clear insight into symptoms of fatigue, stress, depression, digestive issues, and more. Equally important, it provides a roadmap for safe detox and re-balancing... ..information impossible to obtain through blood. In fact, a serum test of minerals for this individual could very likely come back showing everything within the "normal reference range."*



*Discover the history of HTMA and the shocking efforts that have prevented this important screening tool from being more widely adopted!*

**"I continually see the clinical value of hTMA results in accounting for many conditions that baffle most medical doctors and psychiatrists."** ~Dr. Richard Malter, PhD

Advancing Nutrition Education. Empowering Individual Health.

[www.MineralMastery.com](http://www.MineralMastery.com)

Copyright Rick Fischer

MINERAL



MASTERY

INTELLIGENT NUTRITION

# SODIUM and POTASSIUM

Sodium is an essential mineral, found mainly outside the cell; whereas its counterpart potassium is found mainly inside the cell.

Sodium, though it's been demonized, has important roles including:

- helping nutrients cross the cell membrane (supporting cell nourishment)
- maintaining water and electrolyte balance
- helping nerve function
- supporting muscle function / contraction
- production of HCl (hydrochloric acid) production in the stomach
- ...and more

We've been conditioned to think of adding salt to our food as something that is bad. While too much salt (ie: table salt - stripped of other naturally occurring minerals) is indeed bad for our health, the right kind of salt (naturally occurring and containing a wide spectrum of other minerals) can actually be very healthy for us.

See, it's not so much about how much salt we consume, but more so the ratio of how much salt (or sodium) we consume relative to potassium. Most people are quite deficient in potassium, and therein lies the problem.



*Sodium, when viewed through HTMA, can also provide an important stress marker and status of adrenal function...as you'll learn!*

*Advancing Nutrition Education. Empowering Individual Health.*

**[www.MineralMastery.com](http://www.MineralMastery.com)**

Copyright Rick Fischer

MINERAL



MASTERY  
INTELLIGENT NUTRITION

# SODIUM and POTASSIUM

The daily RDI of potassium for the average adult is 4700mg. Unfortunately, many people have been led to believe if they simply have a banana or two per day, they're getting enough of this mineral. To put things in perspective, a banana contains roughly 400mg of potassium, less than 1/10 of the daily requirement.

Further affecting potassium are factors such as:

- zinc insufficiency impairing potassium absorption
- the all-popular 'Vitamin D supplement', depleting cellular potassium
- stress or alcohol (can both deplete potassium)
- insulin resistance lowers potassium absorption
- fluoride, or mercury and other toxic metals, can prevent potassium from getting into the cell where it needs to be.

The widespread myth that most people have adequate potassium is based on blood, which of course will usually show a level within range. However, potassium needs to be primarily in the cell. Looking at nutrition this way, we discover that at least 80% of people are deficient in this essential electrolyte.

Remember, serum potassium does not reflect cellular levels. *(There is thus an irony in that mainstream medicine considers serum the standard for clinical validity.)*

Considering this widespread deficiency, and potassium's role in blood pressure control, muscle building and contraction, electrical activity of the heart, HCl secretion and digestive tract activity, and so many more functions, we can begin to see why understanding the status of this mineral at the cellular level is fundamental to more fully addressing common health issues.

# COPPER and ZINC

First, let's talk about zinc and clear up a common myth. While some sources promote the idea that zinc deficiency is uncommon and nothing to worry about, the fact is the majority of people are...yup...you guessed it...deficient in zinc!

Again, we need to move away from the narrow focus of blood, and consider cellular levels, along with all the various reasons behind zinc deficiency. The following list of zinc-depleting factors just begins to scratch the surface... we of course cover this much deeper in Mineral Mastery. For starters:

- Stress (depletes zinc)
- Glyphosate sprayed on many crops (chelates / depletes zinc)
- Mercury (displaces / depletes zinc)
- Pregnancy (depletes zinc)
- Alcohol and coffee (deplete zinc)
- Vegetarian / Vegan diet (high in phytates... impair zinc absorption)
- ...and the reasons go on.

Zinc plays many vital roles, from immune health, to melatonin production, hair, skin, and nail health, digestive function and gut integrity, even mental health. It is also essential

for keeping copper in check. Zinc is an antagonist to copper, but not so much in the 'detox' sense as is commonly promoted. Zinc supports metallothionein (MT) synthesis, which in turn prevents copper accumulation. When zinc is low, MT synthesis is impaired, and copper accumulates...

**"The national nutritional NHANES III survey determined that 45% of Americans do not obtain sufficient zinc, EVEN if they consume zinc rich foods."**

~<https://blog.undoctored.com/whats-story-zinc/>  
~<https://academic.oup.com/jn/article/130/5/1367S/4686375>,



*Learn deeper zinc's many vital roles in health, and how zinc therapy has been successfully used in treating certain mental health conditions.*

*Advancing Nutrition Education. Empowering Individual Health.*

**www.MineralMastery.com**

Copyright Rick Fischer

MINERAL



MASTERY

INTELLIGENT NUTRITION

# COPPER and ZINC

Copper is likely the most misunderstood imbalance in health and nutrition. Messages such as "copper toxicity is a myth", "HTMA is not useful...serum is a better test for copper", "if you're deficient in copper just take more copper"...these messages all just add to the confusion, leave "copper toxicity" off the public radar, and have kept so many people in the dark from finding answers that in some cases could have saved lives. The confusion is amplified when people without adequate training read a blood test (or HTMA for that matter too) at face value.

**"Copper is the most important metal that we really need to be dealing with because its connected to so many common issues that we're all suffering from."**

~Ann Louise Gittleman, MS, CNS,

The best way to understand copper status and the effects of copper on both physical and mental health, is to examine the cascade of changes in the body's mineral system that excess copper induces...something most easily seen when viewed through HTMA. One will never understand copper as long as one looks at copper in isolation. Likewise, one will never fully understand copper 'deficiency' until the concept of copper 'toxicity' is recognized. In most cases, toxicity leads to deficiency, and therein lies the confusion. It is akin to being in an ocean of water yet dying of thirst - water all around but none of it drinkable.

A special study is needed to understand copper toxicity, and the implications of this have far reaching implications across all areas of health, including mental health. Mineral Mastery is the original course designed to bring this information to the general public as well as to enhance practitioner education in this area as well.



*Discover the toll that the denial of copper toxicity has had on countless lives and relationships. This education is especially applicable to help empower every young woman with her health.*

*Advancing Nutrition Education. Empowering Individual Health.*

[www.MineralMastery.com](http://www.MineralMastery.com)

Copyright Rick Fischer

MINERAL





# COPPER and ZINC

Numerous factors including excess estrogens, copper IUDs, copper piping in homes (drinking water), copper sulfate on crops, in-utero transmission, deficiencies of certain nutrients (especially zinc), and other factors can lead to an over-accumulation of copper in the body.

Copper acts as an excitotoxin on the brain. Initially stimulating, over time its accumulation can lead into ever increasing states of brain fog, adrenal fatigue or burnout. With adrenal burnout or liver congestion, the level of a protein called ceruloplasmin (Cp) tends to decrease (although that marker by itself can be misleading for a number of important reasons as explained in the course).

Nonetheless, Cp is a protein that binds to copper to make copper "bio-available", and so if Cp is low, then there is a deficiency of "available" copper. Furthermore, retinol and magnesium are needed to bind copper to Cp, and so deficiencies of retinol or magnesium can also lead to deficiencies of available copper. This bio-unavailable copper accumulates in cells, tissue, organs, primarily the liver, and secondarily the brain and other locations.

This imbalance of copper then goes on to affect not only digestion, energy, and thyroid status (and associated symptoms), but also one's iron status. Available copper is needed to support iron. (Hint: a lot of anemia is not necessarily a call for more iron, but rather a suggestion to examine one's copper and Cp).

Copper also has powerful roles on neurotransmitters (dopamine, serotonin, GABA...) and in this way copper toxicity is a key player in various mental health issues including depression, anxiety, schizophrenia, apathy, and much more.

Mineral Mastery provides an important bridge between nutrition and psychology. As such, we dive deep into this copper connection, as currently far too many lives are being ruined by denial surrounding the copper toxicity epidemic, not to mention widespread misinformation on how to "detox copper".

**"Many of the most prevalent metabolic dysfunctions of our time are related in some way to a copper imbalance."**

~Dr. Paul Eck

*Advancing Nutrition Education. Empowering Individual Health.*

[www.MineralMastery.com](http://www.MineralMastery.com)

Copyright Rick Fischer

MINERAL



# QUICK SNAPSHOTS OF IRON & IODINE

While the common message for those with anemia is to take (supplement) iron, such messaging is not only potentially harmful, but also completely ignores the cause of the anemia (in many cases) in the first place.

Excess iron is oxidizing to the body...not a good thing! Over time, it can actually lead to joint pain, arthritis, liver disease, and more. Yet, when health practitioners tell their clients to take more iron because their level is 'low', or they're anemic, or their ferritin is low...are they considering that...:

- ...roughly 95% of iron consumed is stored in the body to begin with?
- ...high ferritin (in the range commonly pushed for) can be an inflammatory marker?
- ...low HCl (very common) can impair iron
- ...or that copper toxicity / deficiency could be the culprit?



*Hint: As you'll learn in Mineral Mastery, copper imbalance plays a major underlying role in one's iron status. Most iron anemia is caused by a deficiency of AVAILABLE copper, for which other vitamins and minerals and ceruloplasmin must be addressed!*

As for iodine, this mineral too is greatly misunderstood. Iodine plays a vital role in thyroid health (and hormone production), detox, brain development, even protection against cancer. Yet, many people are led to believe that the RDA of iodine is 'good enough' and that their iodized table salt gives them sufficient iodine. Other messages meanwhile create fear that supplementing iodine is dangerous. While partly true (taking too much iodine incorrectly can indeed be dangerous), when done properly however (as we explain in Mineral Mastery), iodine becomes an important ally in health!

**"Iodine deficiency is the world's most prevalent, yet easily preventable, cause of brain damage."**

~World Health Organization

*We address these minerals, and the many others, in much more detail in the course...of course!  
We also get into vitamins...*

Advancing Nutrition Education. Empowering Individual Health.

[www.MineralMastery.com](http://www.MineralMastery.com)

Copyright Rick Fischer

MINERAL



# A PREVIEW TO SOME OF THE VITAMINS

MYTH:

*"Taking a multi-vitamin is safe insurance against nutritional deficiencies in my body."*

Not only are "multi's" produced to sell to the masses (thereby not specifically addressing YOUR unique imbalances or needs), but about 95% of vitamin supplements are synthetic and in some cases can even make certain deficiencies worse! You'll learn why in the course.

## VITAMIN A. Did You Know...?

- it's important for vision, skin, bone health, sleep, and reducing inflammation!
- it's important for supporting the bio-availability of both copper and iron!
- relying solely on beta-carotene sources can be problematic for roughly half the population!



*If you're astutely beginning to connect the dots already, this can help explain why some people can thrive as vegans while others become quite ill.*

## VITAMIN C. Did You Know...?

- it's important for immune health, tissue repair, making collagen...
- most supplements (ascorbic acid) are synthetic
- knowing your mineral profile helps determine if and when taking ascorbic acid may be more beneficial (or vice versa) than the 'whole food raw C' form.

## VITAMIN D. Did You Know...?

- taking it as a pill is NOT the same health-wise as obtaining beneficial Vitamin D from the sun!
- the vast majority of people are taking Vitamin D incorrectly, silently contributing to other health conditions to which they rarely connect the dots.
- magnesium plays a vital role in your Vitamin D status.

**"Magnesium deficiency shuts down the Vitamin D metabolism pathway."**

~Dr. Qi Dai

*These are just some of the many "AHA" moments that await you in Mineral Mastery!*

*Advancing Nutrition Education. Empowering Individual Health.*

[www.MineralMastery.com](http://www.MineralMastery.com)

Copyright Rick Fischer

MINERAL



# TOXIC METALS

Toxic metals such as mercury, arsenic, cadmium, uranium, lead, aluminum... we're exposed to these elements all the time through our air, food and water, not to mention some of the common specific sources of these metals.

To think that we are immune to these exposures, or that these metals do not accumulate in our bodies (and therefore that detoxing is not important), is just wishful thinking. Remember, these toxic metals do not get stored in our blood, so testing for these elements via blood is unlikely to show much. These metals get tightly stored in our tissues, which is why doing a liver biopsy, urine challenge testing, or HTMA is needed to more fully understand this accumulation and the effects thereof.

What does this have to do with minerals? Well, these metals have a direct relationship with minerals. When certain minerals are lacking, the corresponding toxic metal is more likely to take the place of the mineral in that mineral's receptor sites. In other words, optimizing your minerals can help reduce how much toxic load your body takes on.

Likewise, knowing which metals are high in your body, specific nutrient support can then be used to mobilize and detox those metals. Zinc and selenium, for example, play a very important role in the detox of arsenic, mercury, and cadmium, while magnesium can support the detox of aluminum.

In the course we go through the various sources of exposure to these metals, common symptoms that can develop, the relationship between the metals and minerals, and how to use nutrient therapy to support the body's detox process.

**"Dental amalgams will continuously leach elemental mercury vapor during chewing, brushing and corrosion into saliva, which is inhaled and has been proven to accumulate in the body."**

~ZRT Laboratory

*Advancing Nutrition Education. Empowering Individual Health.*

[www.MineralMastery.com](http://www.MineralMastery.com)

Copyright Rick Fischer

MINERAL



# DETOXING: COPPER

Despite all the literature over the decades from experts in the field of copper toxicity research (Pfeiffer, Eck, Walsh, Gittleman, Malter, et al), there remains so much public and professional lack of awareness when it comes to the detox of copper. Quick searches on any related forum will typically turn up myths such as "take zinc to detox copper", or "just take zeolite", or of course, the idea that "if I detox this copper, my symptoms will go away".

These myths and misconceptions ignore:

- Zinc helps prevent copper accumulation by way of supporting metallothionein synthesis, but zinc itself is not a strong chelator of copper.
- Copper does not act alone, and focusing on detoxing copper ignores the symptoms resulting from other minerals that have become imbalanced on account of the excess copper. Those imbalances must also be addressed.
- MOBILIZATION OF COPPER DOES NOT EQUAL DETOX. Detox pathways must be open, and bile must be flowing, to allow for the excretion of copper.
- Nutritional detox support depends on the HTMA-based mineral pattern, and should be adjusted depending on whether copper is actively being mobilized or not.
- As copper is also an essential mineral, part of the 'detox' must also recognize steps that help improve the overall bio-availability of copper.

Created by the founder of CopperToxic.com, Mineral Mastery really shines a spotlight on copper toxicity, its effects, and detox approaches. These approaches include both nutritional as well as synthetic options such as D-Penicillamine, Trientine, etc. Education is also provided on the psychological aspects of detoxing copper too quickly, since copper is one of those minerals that can send a person over the edge when detox is not approached intelligently.

*Understanding the Why and How of detoxing excess copper can become one of the most empowering health tools for any woman, or any health practitioner.*



**"Many symptoms can occur when excess copper is eliminated from the tissues...**

**free floating anxiety feelings, spaciness, fears and disorientation may occur."**

~Analytical Research Labs Inc

*Advancing Nutrition Education. Empowering Individual Health.*

**[www.MineralMastery.com](http://www.MineralMastery.com)**

Copyright Rick Fischer

# DETOXING: TOXIC METALS

While the mainstream approach to detoxing metals often involves synthetic chelating agents such as DMPS, DMSA and others, these agents are not without potential side effects. While they can certainly be beneficial in cases of acute toxicity where an emergency approach is needed, some of their downsides include:

- the potential to deplete beneficial minerals
- putting a strain on the kidneys as these toxic metals are excreted
- the risk of potential redistribution of metals from 'safer' soft tissue sites to other locations such as the brain.

A safer approach is 'nutritional chelation', which uses preferred nutrient minerals to allow the body to more naturally release toxic metals in its own time and wisdom. Understanding the relationship between minerals and metals allows for a targeted nutritional approach to safely release specific toxic metals.

By understanding this specificity and targeted approach, one comes to realize that a true detox is not found in a 7-day kit at the store. Sure, they can offer convenience in general liver and detox support, but there is so much more involved to detoxing the body than most people realize.

Binders can (and should) also be employed. These can include zeolite, cilantro, modified citrus pectin, activated charcoal, bentonite clay, diatomaceous earth, silica, and others. These binders though are not one size fits all. They each have their own specific affinities, and the employment of a specific binder depends on what the goal of the detox is (ie: specific toxic metals, vs molds, mycotoxins, etc).

**"The truth is chelation  
can be devastating to those with  
autoimmunity, neurodegeneration,  
or an immune reactivity to chemicals."**

~Dr Datis Kharrazian

*Advancing Nutrition Education. Empowering Individual Health.*

[www.MineralMastery.com](http://www.MineralMastery.com)

Copyright Rick Fischer



# THE WHEEL OF HUMAN ENERGY

Fatigue is such a common symptom these days. So many people struggle with exhaustion, just trying to get through the day. To help further evolve the understanding and research in the field of human energy, Rick developed the energy model "*The Wheel of Human Energy*". This model brings together the long list of mineral and physiological aspects, along with external factors and other influences, that affect energy. This Energy Model is the basis for this unit of the course, as we focus in specifically on the mineral implications.

Often, we think of energy production in terms of ATP energy, or the health of our adrenals (adrenal "fatigue"), or mitochondrial function. While these absolutely play fundamental roles in energy, our minerals regulate and affect all three of these components. For example, the mitochondria are widely understood as the energy production centers of our cell. Less understood though are the roles that excess calcium / calcification alongside magnesium deficiency have on the mitochondria. Understanding how to optimize your calcium/magnesium balance (and the factors that can throw off your Ca/Mg), can therefore go a long way in supporting your energy as well.

Our mitochondria of course produce ATP energy, but in this process, nutrients including copper, iron, and B12 are also needed, among others. Thus, if we are struggling with copper toxicity (and the corresponding deficiency of bio-available copper that comes with it, plus the resulting dysregulation of iron), that's going to affect ATP. B12 plays a role too, but few stop to consider the importance of gut health and HCl production for supporting B12 levels, or the very nutrients needed to support HCl in the first place. Everything is interconnected and minerals are at the foundation to it all. Manganese also plays a role in minimizing mitochondrial oxidative stress, and here once again we have to consider the effects of excess copper on manganese.

**"Mitochondria and how the body generates energy are involved in almost every pathological process you are to mention... [Mitochondria] are a vital unit of energy generation."**

~Dr Sara Myhill

# THE WHEEL OF HUMAN ENERGY

Similarly, our minerals regulate our adrenals and thyroid - these glands being responsible for the vast majority of our energy production. We examine these important connections, and the connections back to our minerals. We also look at gut health, and how certain imbalances can open the door to parasites, for example. Those parasites in turn can be silently robbing energy... and then here is where iodine (when introduced safely) can help in the battle against parasites...and in turn supporting energy. Alternatively, if candida is an issue, then mineral imbalances (specifically copper, zinc, and molybdenum) should be looked at.

Poor sleep of course also affects energy, and once again our body's mineral system should not be ignored. Many practitioners promote the direct use of melatonin to assist sleep, but in this course we teach how mineral deficiencies and excesses can be impairing not only melatonin, but also the liver...impairing sleep...and affecting energy.

After our previous unit on toxic metals, we now in this unit look further at how those metals can create channelopathies which effectively block essential nutrients from getting into the cell...once again silently affecting our mitochondria and impairing energy.

This 'Energy' unit helps bring many of the course concepts together, and provides a comprehensive look (along with actionable steps) for anyone looking to further optimize their energy levels. Very few, even amongst professionals, consider many of the connections this unit, and course, make.

Indeed, whether for finding answers to energy issues, mental health concerns, digestive complaints, cardiovascular, musculoskeletal or other concerns, the Mineral Mastery course provides a refreshing and vital education that empowers both the wellness professional as well as the everyday individual.

*Advancing Nutrition Education. Empowering Individual Health.*

[www.MineralMastery.com](http://www.MineralMastery.com)

Copyright Rick Fischer





# YOUR JOURNEY INTO FINDING ANSWERS...AWAITS!



## OUR STUDENTS SAY

This course was exceptional.

Very informative.

Highly recommended.

Everyone should have this information!

EXTREMELY eye-opening.

EMPOWERMENT THROUGH  
EDUCATION!!



This is the "nutritional user-manual"  
for your body you deserve to have,  
but were never given...  
...an education important enough,  
for every human.

[www.MineralMastery.com](http://www.MineralMastery.com)

*Advancing Nutrition Education. Empowering Individual Health.*

[www.MineralMastery.com](http://www.MineralMastery.com)

Copyright Rick Fischer

