

# **Health Hunters**

Newsletter

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# The 10 Most Toxic Minerals

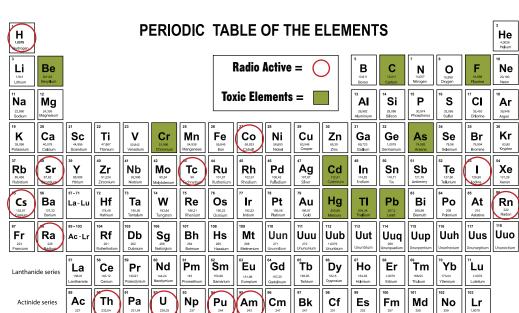


Many minerals are an essential part of a healthy diet. Some minerals are toxic, even in micro-amounts. They are formed by combinations of various elements. In this article you will learn, or be reminded, of the differences between minerals and elements, where the word mineral comes from, various toxic minerals and the dangers associated with each. We will also take a virtual "Grand Tour" of where the 10 most toxic minerals are likely to be encountered, what action to take if encountered, diagnostic symptoms, tests, and potential medications available for treatment.

In the late 14th century the word 'mineral' (from Medieval Latin minerale) referred to 'something mined.' Today minerals are defined as inorganic substances found in crystalline forms such as salt, diamonds and even rocks. Elements are pure inorganic substances which comprise the Periodic Table of Elements (shown below). There are currently 118 known elements; elements 95 to 118 are not currently found in nature but have been synthesized in laboratories. All substances organic and inorganic are formed by combinations of various elements. Notice that the toxic elements are highlighted in the Periodic Table. It is these elements that are the "toxic" part of toxic minerals. Also, the circled 12 elements are radioactive forms of elements used routinely for medical, military, or commercial purposes: All radionuclides may be dangerous, or "toxic". In accepted usage, a heavy metal is a toxic metal. Some lighter metals are toxic, thus have been termed heavy metals, while some heavy metals, such as gold, and typically are not toxic. Thus, there is ambivalence in the term "heavy metal."



Riordan Clinic is a not-for-profit 501(c)(3), nutrition-based health facility in Wichita, Kansas. We have integrated lifestyle and nutrition to help you find the underlying causes of your illness. Since our inception in 1975, the mission has been clear and unwavering to "...stimulate an epidemic of health."



#### **Contact the Editor**

Please send any comments or suggestions to newseditor@riordanclinic.org.

Thank you for reading,



Erin Fagan Editor

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#### Health Hunters Newsletter

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Rock hounds and crystal collectors BEWARE! Following is a list of the "10 Most Deadly Rocks and Minerals" as compiled by Listverse.com.

10. **Coloradoite** is a recently discovered crystalline mineral originating in magma veins. This mineral is a mercury telluride compound formed when mercury fuses with tellurium, an extremely toxic and rare metal. This looks like the mineral was discovered in Telluride, Colorado, but I have found no reference to this. Interestingly, Coloradoite may be mined for its tellurium content because tellurium readily combines with gold, accounting for a bizarre gold rush in Kalgoorie, Australia. Pot holes in the streets of Kalgoorie had been filled with gold-bearing tellurides. Years later, when this was discovered, the gold rush was centered on digging up the ore that had been used to fill the pot holes. When heated or carelessly handled the double-barreled combination of mercury and tellurium poses a deadly threat.



Crystals, like Coloradoite, are formed from elements mixed in the three innermost super-heated layers of the Earth, beneath the outer layer, known as the Earth's Crust. The layer beneath the Crust is called the Mantle and is the location of magma. When the magma is forced to the surface, it is known as laya.

- 9. **Chalcanthite**. Seductive blue chalcanthite crystals are composed of copper, combined with sulfur, other elements and water. Copper, required in small amounts by the body, becomes highly bio-available in a water soluble form and may be rapidly assimilated, resulting in high copper levels which shut down body processes. Calcanthite should never be tasted for salt content, or an extremely serious overdose of copper may result. Calcanthite may be encountered in copper mining regions world-wide.
- 8. **Hutchinsonite** is a hazardous but dramatic mixture of thallium, lead and arsenic, forming a lethal mineral cocktail. Signs of chronic thallium exposure through skin contact include loss of hair, serious illness and, in many cases, death. Hutchinsonite was named after John Hutchinson, a prominent mineralogist from Cambridge University. The mineral is found in mountainous regions of Europe.
- 7. **Galena** (not Kansas or Illinois) is the principle ore of lead, and forms glistening silver cubes with almost unnaturally perfect shapes. The sulfur content of galena makes it extraordinarily brittle and reactive to chemical treatment. Miners and workers in extraction plants may encounter deadly galena poisoning. Currently, lead contamination of public water supplies is a localized, but severe problem in the U.S. IQ suppression is one of many toxic effects of lead poisoning, especially in children. Galena has a cubic structure, and, if hit with a hammer, the crystal will shatter into multiple smaller replicas of its original shape.
- 6. **Asbestos** (Chrysotile and Amphibolite). Asbestos is not a manmade product, but one of the most terrifying minerals on earth. Asbestos conducts full-scale mechanical sabotage on the human lung. It is composed of silica, iron, sodium and oxygen. Asbestos, being heat and flame resistant, has long been used for insulation and protective purposes. Both mining operations and natural aging and abrasion of asbestos insulation result in thousands of tiny, fibrous crystals that can become airborne and lodged in the human lung. Recurring, chronic irritation of the lung by these crystals results in pulmonary fibrosis and may lead to mesothelioma, a deadly form of lung cancer. Many humans carry some asbestos fibers in their lungs. Results of exposure to asbestos fibers were discussed by John Higginson, MD, a Geographic Pathologist at the University of Kansas, over 50 years ago. His studies began with discovery of exposure of adults and children to airborne asbestos crystals originating from pilings formed by asbestos mining in South Africa.
- 5. **Arsenopyrite**, fool's gold with a difference. Fool's gold, pyrite, is iron sulfide. Add a heavy dose of arsenic and you have Arsenopyrite. Heating or any other way of altering Arsenopyrite results in release of lethally toxic, corrosive, carcinogenic vapors characterized by a strong garlic odor. Arsenic, in very small doses given over prolonged

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periods of weeks and months, used to be the poison of choice by those of murderous intent, but with the advent of easy detectability has fallen out of favor.

- 4. **Torbernite**, the mineral from hell. The prism shaped green crystals of Torbernite are formed through a complex reaction between phosphorous, copper, water and uranium, and are found as secondary deposits in granitic rocks. Warning—these stunning crystal displays are not for keeping on your desk as paper weights, due to uranium decay, like a pocket-sized Chernobyl, not to mention emission of radon gas capable of inducing lung cancer. Since torbernite can occur in granite, your stylish granite countertops at home may glow in the dark. The bright green crystal blooms of torbernite were used by prospectors as indicators of uranium deposits.
- 3. **Stibnite** is antimony sulfide, but it looks like silver. For that reason, the huge, shining metallic crystals were once fashioned into magnificent eating utensils. Unfortunately, the crystals were laced with antimony, causing food poisoning of the worst kind, death. Today, even in collections, stibnite utensils or crystals should be handled with great care. Hand washing is recommended after even minimal contact. Mines near Oksaku, Japan produce the best stibnite crystals in the world.
- 2. **Orpiment**. Composed of arsenic and sulfur, the lethal and chemically reactive orpiment crystals are found growing below the surface in mineral formations, often near hydrothermal vents. It may crumble into dangerous powder when exposed to light. Holding the crystals in your hands may release the carcinogenic, neurotoxic powder. Like cinnabar, the Chinese made extensive use of orpiment, to terrifying ends. Arrows would be rubbed on crushed samples of these stones and then launched to poison the enemy. Orpiment was once used as a primary component of ochre paint, no doubt poisoning many of the artists who used it.
- 1. **Cinnabar**, mercury sulfide, is the most toxic mineral to handle on Earth. The name itself means dragons blood. Cinnabar is the main ore of mercury. Forming near volcanos and sulfur deposits, the bright red crystals signal danger. Cinnabar may release pure mercury if disturbed or heated, causing tremors, loss of sensation and death. In the Middle Ages and late 1700s, being sent to work in Spanish mines containing cinnabar formations was considered a death sentence. Cinnabar was used widely in China for ornamental food dishes. Some ancient medical practitioners believed cinnabar held healing powers, prescribing it for certain conditions.



Prevention is worth a pound of cure. First, avoid exposures to toxic minerals by identification and avoidance. If exposure occurs, seek medical attention as soon as possible. Many of the toxic elements that are found in toxic minerals are subject to chelation, which means that the toxic elements can be bound to or otherwise disabled, followed by elimination from the body.

The history surrounding toxic minerals is truly interesting. Frequently, knowledge of toxicity was ignored or suppressed. Today, we are exposed to mercury in amalgam dental filings and vaccines, and to chemotherapy agents so toxic that it is hoped that the fast growing cancer cells will be poisoned faster than the slower growing normal cells. This knowledge too, is frequently ignored or suppressed. Many sources of information regarding toxic minerals (crystals) and elements are easily found by computer search.

To have your mineral levels checked please call us at 1.800.447.7276

### With Gratitude

## Celebrity Cruises G.I.V.E. Day

Saturday, May 14, 2016



125+ Celebrity Cruises employees, along with their families and friends, spent their morning planting flowers, adding mulch and pulling weeds, painting and organizing inside storage areas at Riordan Clinic for their annual community service day of giving.

We are so grateful and humbled by the gift of their time and the generous cash donation to make our campus beautiful for all to enjoy.



Celebrity Cruises, Inc/Royal
Caribbean Cruises, Ltd is based
in Miami, Florida. They have a
large facility in Wichita at 4729
S. Palisade and employs over
500 people at this location.
Celebrity Cruises's commitment to
excellence has earned them Travel
Weekly's "Best Premium Cruise
Line" for eight consecutive years.

Thank you Angel Gomez and Team!

## Kansas City Clinic Open July 11th!

21620 Midland Drive, Suite B Shawnee, KS 66218



## Help us welcome Dr. Nia!

Ourania T. Stephanopoulos-Chichura, MD, or Dr. Nia, as patients fondly refer to her, is a native of Ohio and a third generation healer in her family. Dr. Nia attended the University of Illinois at Urbana-Champaign and studied microbiology and chemistry. We are grateful she has joined the Riordan Clinic family. Dr. Nia's journey in Integrative Medicine began at the Riordan Clinic! While she was a medical student on rotations in Wichita, a friend suggested she visit the Riordan Clinic to find root causes to diseases. What she found was an approach to the patient as a whole person. This included evaluating for root causes, nutritional deficiencies, and toxicity. Dr. Nia feels that her journey in Integrative Medicine has come full circle with her joining the staff at the Riordan Clinic.

Dr. Nia will be seeing individuals with health concerns such as: cancer, gut issues, allergies, diabetes, Lyme disease and other chronic illnesses.

To become a new patient or learn about the services we offer please contact:

Jason, New Patient Coordinator 316.927.4765

## **New Kansas City Clinic**













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# IVC & Chronic Illness Symposium: The Emergence of Redox Medicine

October 13th – 15th | Wichita, Kansas at Hotel At Oldtown \$595 early bird pricing | Up to 21 CMEs available

The Riordan Clinic IVC & Chronic Illness

Symposium (October 13-15, 2016) explores the underlying causes of chronic illness, with the intent of elucidating new ways to treat disease in a non-toxic fashion. Speakers represent a growing field of pioneers who have found that IVC is a powerful adjunct in the care of chronically ill patients. Although intended for medical professionals, the lectures also serve to inform interested "co-learners" who seek help for themselves and their friends and family through a better quality of life.

Today we are witnessing a profound shift in the medical care of the masses.

Against this backdrop of pervasive human suffering and a widespread future of diminishing medical resources, the 5th Riordan IVC Symposium offers a bold new perspective on the care and treatment of this vast array of chronic illnesses: identify and correct the common denominator of ALL chronic illness – OXIDATIVE STRESS!

Redox Medicine is the patient-centered care approach that focuses on the identification and treatment of the many origins of pervasive oxidative stress: hidden dental infections, key nutrient deficiencies, poor dietary choices, leaky gut syndrome, environmental toxin exposure, hormonal disruption, epigenetic imbalances, and polypharmaceutical overload.

Our speakers will systematically address these ROOT CAUSES of the chronic illnesses assailing mankind today. Join us as we explore a unified theory of chronic illness that will redirect medical care to treatments that address and correct the REAL CAUSES of these unexplained and often poorly treated medical epidemics. Together we can contribute to a new era of REAL HEALTH!



For more information or to register please visit:

IVCandCancer.org

# Doctor Call Times

30 Minute Free Conference Calls for Potential Patients

New times available!

1.800.567.5900

Access Code #2571701



Mondays, 5:30pm Ron Hunninghake, MD



Tuesdays, 1:00pm Anne Zauderer, DC



Tuesdays, 5:30pm Nia Stephanopolous-Chichura, MD



Wednesdays, 8:00am Charles Hinshaw, MD Director of Bio-Center Laboratory



Wednesdays, 5:30pm Jennifer Mead, ND

Learn more about our team at:

riordanclinic.org/doctorsstaff/

## **Toxic Nutrients**



Dr. Thomas E. Levy, MD, JD

There are many things that are unequivocally good for you that become bad for you when you take too much of them. Relative to most prescription drugs however, vitamins, minerals, and nutrient supplements are vastly safer regardless of the dose. Nevertheless, even with this wide safety margin in mind, very few supplements can be taken with complete disregard as to dose. Vitamin C, Vitamin K, and all oral forms of magnesium are noteworthy exceptions. Vitamin D is a supplement that you need to adjust with blood testing. Too little is bad for you, and too much is also bad, but the benefits of the right dosage are enormous. Most mineral supplements can be overdone as well.

The real danger in supplementation comes with not realizing which nutrients can readily transition from a beneficial intake to a toxic intake within a very narrow margin of safety. The most noteworthy of these "toxic nutrients" are calcium, iron, and copper. While there is no question that these three nutrients are absolutely essential to life and good health, there is also no question that these nutrients can very easily become incredibly toxic when they exceed certain levels in the body, with the toxicity further increasing as the levels elevate.



Calcium is currently one of the most supplemented substances on the planet. The primary reason for this is due to the scare that older individuals have of not being able to effectively cope with osteoporosis and its grave complications. This scare however, is not based on science. Calcium supplementation promotes all chronic degenerative disease, as its excess presence inside the cells is the primary reason for the increased oxidative stress that is seen with all such diseases. The administration of a long-acting prescription calcium channel blocker or a nutrient mineral calcium channel blocker such as magnesium decreases all-cause mortality as intracellular calcium levels are lowered. Except under the rarest of circumstances, calcium should never be supplemented, and dairy intake, especially milk, should be kept to a strict minimum (Levy, 2013).

Iron is a nutrient that can also be very easily pushed to toxic levels in the body. As a transition metal, it has two ionic forms, ferrous (2+) and ferric (3+). Because of this iron serves very effectively to relay electrons from one source to another. Inside the cells, as iron levels increase, oxidative stress increases due to an upregulation of the Fenton reaction, which donates electrons to peroxide, producing the highly reactive hydroxyl radical.

Toxic levels of iron can be easily avoided by monitoring the complete blood count and the ferritin level. If your hemoglobin levels are normal, you do not need one extra molecule of iron in your body. When you have enough iron to synthesize and maintain a normal blood count, you have vastly more than enough iron to address and support all of the other roles that iron plays in the body. Iron storage levels are best monitored by the ferritin blood test, and if your ferritin levels are consistently above 100, specific efforts should be made to bring that level down, preferably below 50, via blood donation, or infrared sauna sweating, or supplementation with inositol hexaphosphate (IP6). As long as your blood count stays normal, you really cannot push your ferritin level too low.

Copper is similar to iron, in being a transition metal that participates in the relay of electrons and resulting in increased oxidative stress inside the cells via upregulation of the Fenton reaction. While someone can legitimately be iron-deficient when anemia is present, it is virtually impossible for someone to be deficient in copper, and a clear clinical syndrome of copper deficiency remains to be defined. The only thing accomplished by copper supplementation is to promote a chronic increase in oxidative stress in the body that only does harm and offers no benefit. Multiple animal and human studies have shown that copper levels inside cancer cells and in the circulating blood of individuals with cancer are elevated and that excess copper and iron administration promote cancer development. The highest levels of copper correlate with the most aggressive and metastatic tumors, and the removal of copper with copper chelators significantly suppresses tumor growth (Fuchs et al., 1986; Fuchs and de Lustig, 1989; Liu, 1991; Gupta et al., 1993; Yoshida et al., 1993; Gupta et al., 2005; Chen and Dou, 2008; Mizukami et al., 2010; Rigiracciolo et al., 2015). An elevated serum copper level and an elevated ferritin have also been established as risk factors for having a heart attack (Salonen et al., 1991; Salonen et al., 1992).

Because calcium, iron, and copper each individually increase oxidative stress throughout the body, they worsen the severity of all diseases that an individual might have. Consistent with this, increased calcium in the body as measured by coronary artery calcium scores increases all-cause mortality (Nakanishi et al., 2015; Hartaigh et al., 2016). Increased iron in the body as measured by ferritin levels increases all-cause mortality (Ellervik C. et al., 2014). And copper levels in the body, as measured by looking at the copper/zinc ratio in the blood, increases all-cause mortality (Malavolta et al., 2010). Also, based on the references cited, supplemental calcium, iron, and copper can all legitimately be considered carcinogens.

Many people take a multivitamin or multimineral supplement and believe they feel better on it, and that they may even be able to normalize previously abnormal blood tests by taking it. However, when you take a supplement with many different components and seem to benefit from it, this does not mean that everything in that supplement is good for you. If 13 out of 15 ingredients are good for you and 2 of them are toxic, you will still probably do better on that supplement. However, it is clearly not proof that everything in that supplement is good for you.

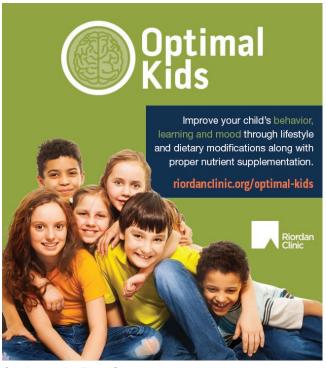
In a nutshell, never supplement calcium. Never supplement copper. And never supplement iron, unless you have a documented iron deficiency, microcytic, hypochromic anemia. Your body will appreciate it.

For a full list of Refrences, please visit: https://riordanclinic.org/2016/06/toxic-nutrients/

## Optimal Kids: A fresh start for a new school year







We are in the midst of a crisis. We have a generation of kids that are disappearing before our eyes. Gone are the days where "arthritis" and "Type II diabetes" are only associated with old age. We are raising a generation of kids who are anxious, depressed, hyperactive, overweight, in pain, constipated, low energy, and who can't sleep. The only answer modern medicine gives us is to medicate their symptoms away. It's a pretty bleak picture when you are told at the age of 5 that you are bipolar and will be on medication the rest of your life.

It appears that we are seeing worsening trends and overmedicating our children is having very little impact, if not compounding the issue. So what do we do about it?

#### **Getting to the Root Cause**

When looking at the conditions children are facing today, the answer is not simple. Every child is different and the solution requires looking at them as an individual. However, there are some common trends we are seeing and effective solutions, without the use of medication. Where do parents start?

It's difficult in today's world for parents to know what the best method to address the complex illnesses that their children face. Most parents are not comfortable putting their child on medications, especially if there is not a plan in place to ever take their child of those medications. However, what are their alternative options?

The Riordan Clinic offers the Optimal Kids Program to give parents the opportunity to work closely with providers who understand the complex nature of these pediatric conditions and who will help parents address the root causes rather than just treating symptoms. If you or someone you know is interested please call **316.531.6242**. Program scholarships are available.

To read the full article and find out more about the Optimal Kids program visit: https://riordanclinic.org/optimal-kids/

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#### **Patient Profile**

#### **AUTHOR**

Olivia Nugroho, RN, BSN



A recent co-learner came to the Riordan Clinic, who had been referred by a local Primary Care Doctor to seek treatment for heavy metal toxicity. A six hour urine test was performed which showed a tremendously high Gadolinium level. Gadolinium is a contrast agent commonly used to enhance MRI scans. With the patient having a history of one kidney, this agent can be extremely dangerous for her, possibly causing a more serious disease called Nephrogenic Systemic Fibrosis. Some of the symptoms she described include joint pain, weakness, skin problems, and a tingling/prickling sensation. Chelation therapy using Calcium EDTA chelating agents were administered to the patient intravenously. The amount of EDTA given is based on body weight and height, as well as the creatinine level. The chelating agents bind to the toxic metals to be excreted from the body through the kidneys. Chelation was administered weekly for 3 months. At the end of her last chelation, another six hour urine test was collected to compare levels. Her recent post-chelation result had shown that the Gadolinium level was down to zero, proving that chelation therapy was effective in removing toxic metals, such as Gadolinium. Chelation has also been effective in removing other common toxic metals such as Lead, Cadmium, Mercury and many more. After having this treatment, the patient noticed an improvement of symptoms. Even after Gadolinium was successfully removed from her body, chelation therapy continued and is in progress due to a recent exposure to Lead. One thing to note is that chelation agents can also remove important nutrients like calcium and zinc from the body. Taking trace mineral supplements is very important to replace the lost minerals. Have you been exposed to some of these toxic metals? Come see us at Riordan Clinic and get yourself checked so we can get you on your way to well!

### Trace Minerals, 30 capsules \$9.95



Every capsule has an ideal balance of beneficial minerals. Containing minerals like Zinc, which holds a crucial role in boosting the immune function, or Potassium, which is important for supporting normal blood pressure and growth, Trace Minerals helps the body maintain mineral balance.

Visit our online store: store.riordanclinic.org

## New Riordan Clinic Product



# MitoForm Daily Multivitamin

60 capsules \$30.95 120 capsules \$49.95

- Recharges Cellular Energy Production
- Supports Immune Function
- Increases Antioxidant Protection
- Supports Detoxification Capacity
- Provides Key Micronutrients to Optimize Daily Nutritional Intake

MitoForm is scientifically formulated, based on published research, to boost mitochondrial reserves and jump-start cellular energy production. MitoForm includes the powerful antioxidant trio of alpha lipoic acid, N-acetyl cysteine and acetyl L-carnitine shown to increase energy production and at the same time, recharge the primary cellular antioxidant pools of vitamin E, C and glutathione. MitoForm also includes key micronutrients and phytonutrients including green tea, broccoli seed extract and resveratrol to protect the mitochondria and continually renew the cycle of energy production.



#### **AllerPlex**

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- Supports Sinus and Respiratory Health
- Promotes Normal Viscosity of Mucus
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AllerPlex is a targeted blend of flavonoids, antioxidants, proteolytic enzymes and herbs designed to provide comprehensive support for seasonal challenges caused by common environmental allergens. AllerPlex contains quercetin, a powerful flavonoid to support healthy histamine levels; bromelain to enhance the absorption of quercetin and to support mucosal tissue health; stinging nettles leaf to balance hyper-immune response and N-acetyl cysteine to clear the airways by promoting normal viscosity of mucus. This powerful combination actively promotes healthy nasal and sinus passages for individuals with elevated histamine and respiratory irritation.





### **Stem-Kine**

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- Overall health and healing capabilities
- An increase in energy
- Stronger, quicker nail and hair growth
- A heightened sense of well-being

Stem-Kine was developed from the study of Dr. Neil Riordan and Dr. Nina Mikirova. Stem-Kine™ capsules are a proprietary nutritional supplement that has been clinically demonstrated to increase the amount of stem cells circulating in the body for an extended period of time (see below graphs). These cells include endothelial progenitor cells (EPCs) which are responsible for upholding the health of the blood vessels as well as hematopoietic stem cells expressing cell surface protein markers CD133 and CD34.

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Wichita Hours: M - Thurs 8-5 Friday 9-4