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Review Article

Natural Approaches for Detoxifying and Chelating Toxins: A Comprehensive Guide to Nanomaterials, Heavy Metals, Microplastics, and Electromagnetic Fields (EMFs)

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Abstract

The increasing presence of nanomaterials and exposure to electromagnetic fields (EMFs) has raised concerns about their potential impact on human health. This article explores natural methods for detoxifying nanomaterials and mitigating the effects of EMF exposure, with an emphasis on approaches that support the body's natural systems. Techniques include infrared sauna therapy, low-impact exercise, clay and magnesium sulfate baths, and supplementation with MasterPeace Zeolite™ in SOLergy™ Sea Minerals, as well as iJuice Chlorophyll and Black Seed Oil for detoxification and blood health. The article also discusses protective devices like the Quantum Link Pendant with Sympathetic Resonance Technology (SRT) as an effective tool against EMFs. These methods aim to reduce the body's nanomaterial load and EMF exposure effects while promoting overall health.

The widespread presence of environmental toxins, including nanomaterials, heavy metals, microplastics, and electromagnetic fields (EMFs), has raised substantial concerns about their potential health impacts. This article explores a range of natural, non-invasive methods for detoxification and mitigation of these toxic exposures, supporting the body's intrinsic detoxification systems. Techniques discussed include infrared sauna therapy, low-impact exercises like rebounding and whole-body vibration, clay and magnesium sulfate baths, and targeted nutritional interventions with MasterPeace Zeolite™ in SOLergy™ Sea Minerals, iJuice Chlorophyll, and iJuice Black Seed Oil. Additionally, the article addresses protective measures against EMFs, such as grounding, hydration, and the Quantum Link Pendant with Sympathetic Resonance Technology (SRT), which supports the body's biofield. The role of antioxidant-rich foods and natural supplements in countering oxidative stress and enhancing the body's resilience to environmental toxins is also highlighted. Together, these strategies aim to reduce the body's toxic load, promote cellular health, and support overall wellness in response to modern environmental challenges.

Keywords: Detoxification; Nanomaterials; Heavy Metals; Microplastics; EMFs; Microplastics; Oxidative Stress; MasterPeace Zeolite™; SOLergy™ Sea Minerals; iJuice Chlorophyll; Antioxidant Food; Infrared Sauna; Black Seed Oil; iJuice; NAC; Glutathione; Aluminum; Graphene; PFOS; PFOA

Introduction

The rapid advancement of nanotechnology, characterized by the manipulation of matter at atomic and molecular scales, has led to its increasing incorporation into medicine, cosmetics, electronics, and a wide range of consumer products [1]. While nanomaterials provide significant benefits, concerns are mounting over the potential health risks associated with their accumulation in the human body. Due to their ultrafine size, these particles can infiltrate cellular structures, potentially disrupting biological systems, causing oxidative stress, triggering inflammatory responses, and other health complications [2,3].

One prominent application of nanotechnology is the use of biocompatible near-infrared quantum dots, funded by initiatives such as the Bill and Melinda Gates Foundation, for recording vaccination status through microneedle patches [4]. Quantum dots and other engineered nanomaterials bring additional exposure risks, particularly as their use becomes more widespread [5,6]. Concurrently, electromagnetic fields (EMFs) from increasing reliance on electronic devices have introduced new environmental stressors, with studies linking prolonged exposure to health issues, including oxidative stress and immune disruption [7,8]. The cumulative exposure to nanomaterials, EMFs, heavy metals, microplastics, and synthetic chemicals has prompted a strong interest in natural, non-invasive detoxification strategies [9,10].

This article provides a comprehensive review of natural methods to aid in detoxifying these environmental toxins. Techniques discussed include infrared sauna therapy, low-impact exercise, detox baths using bentonite clay and magnesium sulfate, and dietary supplementation with products like MasterPeace Zeolite™ in SOLergy™ Sea Minerals and iJuice Chlorophyll [11-13]. Additionally, the article covers strategies to mitigate EMF exposure effects, including grounding, antioxidant-rich nutrition, hydration, and supportive devices like the Quantum Link Pendant with Sympathetic Resonance Technology (SRT) [14,15]. By supporting the body's intrinsic detoxification systems, these methods aim to reduce the toxic burden, enhance cellular resilience, and promote overall health in the face of modern environmental challenges.

Aims and Objectives

Aim

To explore and evaluate natural, non-invasive methods for detoxifying and chelating environmental toxins such as nanomaterials, heavy metals, microplastics, and EMFs.

Objectives

- To highlight effective detoxification strategies, including infrared sauna therapy, exercise, and nutritional supplements.
- To provide practical recommendations for minimizing exposure to environmental toxins.
- To examine the role of antioxidant-rich foods in mitigating oxidative stress caused by toxins.
- To introduce supportive tools like grounding practices and biofield-enhancing technologies.

Materials and Methods

Materials

- **Infrared Saunas:** Utilized for detoxification through induced sweating.
- **Detox Supplements:** MasterPeace Zeolite™ in SOLergy™ Sea Minerals, iJuice Chlorophyll, and iJuice Black Seed Oil.
- **Exercise Equipment:** Rebounding trampolines and whole-body vibration machines.
- **Protective Tools:** Quantum Link Pendant with Sympathetic Resonance Technology (SRT).
- Antioxidant foods and Supplements for Detoxifying Chemical and Radiation Poisoning.

Methods

Natural approaches for detoxifying and chelating nanomaterials and other environmental toxins

Infrared sauna therapy for nanomaterial and chemical detoxification

Infrared sauna therapy is widely recognized for its ability to mobilize and release toxins, including nanomaterials and certain chemical pollutants, through the skin [16,17].

Research has shown that sweating induced by infrared saunas can support the elimination of heavy metals like aluminum and lead, as well as other toxins, such as perfluorooctanoic sulfide (PFOS) and perfluorooctanoic acid (PFOA) [18-20,43,44].

Benefits

- Enhances circulation, promoting efficient transport of toxins to detox organs [20].
- Reduces oxidative stress, essential for reducing inflammatory responses from toxins [21,45].
- Aids in eliminating certain metals, phthalates, and bisphenols through induced sweating [22,46].

Low-Impact exercise for circulatory and lymphatic detoxification

Exercises such as rebounding and whole-body vibration are beneficial for promoting circulation and stimulating lymphatic drainage, both of which are crucial for detoxifying nanomaterials and microplastics [23,47]. These exercises help mobilize particles lodged in interstitial spaces and transport them toward excretory pathways.

Benefits

- **Rebounding**: Enhances lymphatic flow, helping the immune system clear nanomaterial and metal residues [24].
- **Whole-Body Vibration Therapy**: Improves circulation and muscle health, assisting in detox pathways for contaminants such as silver iodide and aluminum [24].
- **Elliptical Training**: Offers cardiovascular benefits and aids in oxygenating tissues, which is supportive of detox pathways for PFOS, PFOA, and phosgene [25].

Detox baths with montmorillonite clay and magnesium sulfate (Epsom Salt) for heavy metals and microplastics Montmorillonite clay and magnesium sulfate baths can aid in removing metals like lead, cadmium, and mercury, as well as certain nanomaterials [26,48]. Bentonite clay's high adsorption capacity enables it to capture contaminants with a positive charge, while magnesium sulfate supports enzymatic reactions essential for detoxifying the liver and skin [27].

Benefits

- **Montmorillonite Clay Baths**: Bind to metals and other particles, including some microplastics, aiding in their removal from the body [28,49].
- **Magnesium Sulfate Baths**: Support muscle relaxation and enzyme activation, promoting detoxification of aluminum and ferric oxides [29,50].

Enhancing excretory functions for toxin elimination

Improving the body's excretory functions is essential for eliminating nanomaterials and toxins such as PFOS and PFOA [30,40].

- **Sweating Therapies**: Promote the elimination of a range of toxins, including phthalates and nanomaterials, through the skin [31,51].
- **Lymphatic Drainage**: Through massage and physical activity, lymphatic drainage can enhance the transport and removal of toxic materials, including forever chemicals and microplastics [30].

Avoiding further exposure to nanomaterials and environmental pollutants

Minimizing exposure is crucial, as consistent contact with these substances may exacerbate toxic accumulation in tissues and organs.

- **Protective Equipment**: Use of masks, gloves, and protective clothing can reduce skin and respiratory exposure to nanomaterials such as graphene oxide [32,52].
- **Product Awareness**: Staying informed about the presence of nanomaterials in consumer products allows individuals to make safer choices and minimize additional exposure [33,53].

MasterPeace Zeolite™ in SOLergy™ sea minerals for heavy metal and nanomaterial detoxification

MasterPeace Zeolite™ in SOLergy™ Sea Minerals is formulated to bind heavy metals and engineered nanomaterials, supporting safe excretion through the kidneys [34,35]. Zeolite's high cation exchange capacity allows it to attract positively charged contaminants like aluminum and ferric oxides [35].

Benefits

- **Heavy Metal Chelation**: Binds metals like lead, cadmium, and mercury, aiding excretion [36,37].
- **Nanomaterial Neutralization**: Zeolite may capture smaller nanomaterials, such as graphene and silver iodide, limiting cellular exposure [38].

- **Cellular Support**: Sea minerals help stabilize cell membranes and support overall detoxification pathways, benefiting recovery from toxic exposure [39].

iJuice Chlorophyll: Natural detoxification and blood health

iJuice Chlorophyll, rich in plant-based chlorophyll, is structurally similar to hemoglobin, making it beneficial for detoxifying the bloodstream [39,54]. Chlorophyll is known to bind certain toxins, assisting the body in excreting heavy metals and other nanomaterials [40].

Benefits

- **Detoxification Support**: Chlorophyll binds to toxins, aiding their elimination from the body.
- **Blood Health**: Structural similarity to hemoglobin helps enhance oxygen transport, supporting cellular health and detoxification [41,54].

Nano Colloidal NAC and glutathione for antioxidant and immune support

NAC and glutathione are potent antioxidants that play a crucial role in liver detoxification and immune function. Glutathione has been shown to bind heavy metals and other environmental toxins, aiding in their elimination [41,42,55].

Benefits

- **NAC**: Precursor to glutathione, essential for liver detox pathways, particularly in processing aluminum and graphene oxide.
- **Glutathione**: Powerful antioxidant, binds to metals, assists in their excretion, and supports cellular resilience against toxins [41,42,56].

Here are a few safe and natural methods to help support the body's resilience and detoxification in response to electromagnetic fields (EMFs)

Grounding or earthing

- **Description:** Grounding involves direct physical contact with the earth (walking barefoot on grass, soil, or sand) to help balance the body's electrical charge.
- **Benefits:** The earth's natural electrical charge can reduce inflammation, lower stress levels, and improve sleep quality, all of which may counteract EMF exposure's effects.
- **Research:** Studies suggest grounding may normalize cortisol levels and reduce chronic pain and inflammation, which can be exacerbated by EMFs [57,58].

Infrared sauna therapy

- **Description:** Infrared saunas use infrared light to penetrate the skin and heat tissues directly, promoting sweating and the release of stored toxins.
- **Benefits:** Infrared therapy can help flush out heavy metals and toxins that may accumulate due to EMF exposure. The therapy also promotes relaxation and reduces stress, which can be heightened by EMFs.
- **Research:** Sauna use has been linked to improved detoxification, reduced oxidative stress, and enhanced cellular repair [59,60].

Antioxidant-rich diet

- **Description:** Consuming foods high in antioxidants can help neutralize the oxidative stress that EMFs may cause.
- **Examples of Antioxidant Foods:** Berries, dark leafy greens, nuts, seeds, and brightly colored vegetables.
- **Supplements:** Key antioxidants include vitamin C, vitamin E, selenium, and glutathione, which can reduce EMF-induced oxidative stress [61,62].
- **Research:** Antioxidants can prevent cellular damage from free radicals associated with EMF exposure and support overall immune health [63].

Electrolyte and mineral supplementation

- **Description:** Maintaining a balance of essential minerals, especially magnesium, potassium, and calcium, supports cellular resilience against EMF exposure.
- **Benefits:** Minerals can strengthen cell membranes and reduce cellular permeability to EMFs.
- **Research:** Magnesium has been shown to mitigate EMF-related symptoms like fatigue and poor sleep.

Zeolite and activated charcoal may also be helpful in binding toxins that EMF exposure may exacerbate [64,65].

iJuice Chlorophyll and Sea Minerals (like MasterPeace Zeolite in SOLergy Sea Minerals)

- **Description:** Chlorophyll can support cellular detox, while sea minerals supply essential trace elements for cellular stability.
- **Benefits:** Chlorophyll's molecular structure is similar to hemoglobin, supporting blood health and detoxification. Zeolite in sea minerals can help remove heavy metals and chemicals potentially exacerbated by EMF exposure.
- **Research:** Studies show chlorophyll can bind to toxins and promote their excretion, supporting blood and cellular health under oxidative stress [66,67].

iJuice black seed oil for EMF protection and radiation detoxification

iJuice Black Seed Oil, derived from the seeds of *Nigella sativa*, is a potent natural supplement recognized for its protective properties against oxidative stress and inflammation, both of which can be exacerbated by EMF and radiation exposure. Research has shown that Black Seed Oil's unique phytochemicals, especially thymoquinone, have significant antioxidant and anti-inflammatory effects, making it a valuable natural remedy in reducing cellular damage caused by radiation.

Benefits of black seed oil for EMF and radiation detoxification

- **Antioxidant Protection**: Black Seed Oil is rich in thymoquinone, a potent antioxidant that neutralizes free radicals generated by EMF and radiation exposure, which can otherwise lead to cellular and DNA damage [68,69].
- **Reduction in Oxidative Stress**: Studies indicate that Black Seed Oil can reduce markers of oxidative stress, helping to prevent tissue damage and organ dysfunction associated with prolonged radiation and EMF exposure [70,71].
- **Anti-Inflammatory Effects**: The anti-inflammatory compounds in Black Seed Oil, including thymoquinone, have been shown to reduce inflammation at the cellular level. Inflammation is a common response to EMF and radiation, so these compounds can help reduce the impact on the body [72].
- **Immune System Support**: Black Seed Oil is known to boost immune function, providing support to the body in managing environmental stressors like EMFs. Its immune-modulating effects help maintain resilience against the potential immune suppression linked to radiation exposure [73].
- **DNA Protection**: Preliminary studies have shown that Black Seed Oil may protect DNA from damage, a critical aspect of radiation protection, as radiation can cause DNA breaks and mutations [74].

Hydration with structured water

- **Description:** Hydration is essential for optimal cell function and detoxification, and structured water (water with an organized molecular structure) may improve cellular absorption.
- **Benefits:** Staying well-hydrated supports the body's natural detox pathways, especially through the kidneys and lymphatic system, which may be overtaxed by EMF exposure.
- **Research:** Some studies indicate that structured water enhances hydration and may improve the body's ability to handle EMF-related oxidative stress [75].

Reducing EMF exposure

- **Description:** Minimizing direct EMF exposure from sources like cell phones, Wi-Fi, and other electronic devices can significantly reduce the body's overall EMF burden.
- **Tips:** Use wired internet instead of Wi-Fi, keep devices away from your body, use airplane mode when possible, and turn off Wi-Fi and Bluetooth at night.
- **Research:** Reducing exposure is one of the most effective ways to minimize the potential adverse effects of EMFs [76].

Sleep optimization

- **Description:** Quality sleep allows the body to repair and detoxify. Sleeping in an EMF-free or minimized environment may help your body restore itself more effectively.
- **Tips:** Remove electronic devices from the bedroom, consider EMF-blocking curtains or canopies, and avoid using electronic devices before bed.
- **Research:** Improved sleep quality can enhance immune function, reduce oxidative stress, and support hormonal balance, all of which help mitigate EMF-related symptoms [77].

Meditation and stress reduction techniques

- **Description:** Practices like meditation, deep breathing, and mindfulness help the body return to a parasympathetic (rest-and-digest) state, counteracting stress from EMF exposure.
- **Benefits:** Reducing stress helps lower cortisol levels, decrease inflammation, and support the immune system.
- **Research:** Regular mindfulness practice has been shown to reduce the body's stress response and improve resilience, which can be beneficial in environments with high EMF exposure [78].

Use of EMF protection devices

- **Description:** Certain devices claim to neutralize or block EMFs. While the scientific community remains divided on their effectiveness, some users report subjective benefits.
- **Examples:** EMF shields for devices, Quantum Link pendants, or protective clothing.
- **Consideration:** While results may vary, using these alongside other methods may provide additional peace of mind.

Quantum link pendant with sympathetic resonance technology (SRT) for EMF protection

- **Description:** The Qunatum Link Pendant is a personal energy device designed with Sympathetic Resonance Technology (SRT), which helps to strengthen the body's resilience to EMFs by optimizing energy flow and supporting the body's natural biofield.
- **Mechanism of Action:** SRT works by resonating at frequencies that counteract the adverse effects of EMFs, promoting balance within the body's biofield. This technology is thought to help stabilize the wearer's natural energy, reducing the biological stress caused by EMF exposure.
- **Research and Evidence:** Studies show that devices using SRT, like the Quantum Link Pendant, can reduce stress markers in the body, improve focus, and support overall well-being. Preliminary research also suggests that these devices may improve the body's resistance to EMF-related symptoms by helping the body better adapt to environmental stressors [79,80].

Benefits

- Enhances resilience against EMF exposure by supporting the body's energy field.
- Reduces stress and may improve focus and cognitive function under EMF exposure.
- Provides a convenient, wearable form of continuous protection.

Additional research

While more research is needed to fully understand the extent of SRT's benefits, users report subjective improvements in well-being, reduced fatigue, and better energy levels when wearing the Quantum Link Pendant [81,82].

Foods and supplements for detoxifying chemical and radiation poisoning

Berries (Blueberries, Strawberries, Raspberries)

Berries are high in antioxidants like anthocyanins, which neutralize free radicals, reducing oxidative stress from radiation and chemical exposure [83].

Cruciferous vegetables (Broccoli, Kale, Brussels Sprouts, Cauliflower)

These vegetables contain sulforaphane, supporting liver detoxification pathways and aiding in processing and elimination of radiation and chemical residues [84].

Leafy greens (Spinach, Swiss Chard, Arugula)

Leafy greens are rich in chlorophyll, which binds to toxins, heavy metals, and pollutants, helping remove them from the body [85].

Seaweed (Kelp, Sea Moss)

Known for its chelating properties, seaweed binds to heavy metals and clears radioactive particles and environmental pollutants from the system [86].

Garlic and onions

Contain sulfur compounds like allicin, which support liver function and help eliminate heavy metals and radiation-related toxins [87].

Green tea

Rich in catechins, antioxidants in green tea reduce oxidative stress and support detoxification, particularly effective against radiation-induced cellular damage [88].

Turmeric

The active compound curcumin in turmeric has anti-inflammatory and antioxidant properties, which protect cells from radiation and toxic chemical damage [89].

Cilantro and parsley

Both herbs are known for their metal-chelating properties, binding heavy metals and promoting their detoxification, reducing the toxic load in the body [90].

Citrus fruits (Lemons, Limes, Grapefruits)

High in vitamin C and bioflavonoids, citrus fruits strengthen the immune system, assist liver detoxification, and combat oxidative stress from radiation [91].

Avocado

Avocados contain glutathione, which supports liver detoxification and neutralizes free radicals and toxins from radiation and chemicals [92].

Pomegranate

Rich in polyphenols, pomegranate has been shown to support cellular repair, reduce radiation-induced oxidative stress, and protect DNA [93].

Dark leafy herbs (Basil, Mint, Thyme)

These herbs are abundant in antioxidants and anti-inflammatory compounds, which protect cells from damage caused by chemicals and radiation [94].

Beets

Contain betalains, which are known to support liver function and detoxification, helping eliminate heavy metals and toxins from the body [95].

Olive, hemp, black seed, borage, and sunflower oils

Oils such as olive oil provide polyphenols and healthy fats that support liver function and reduce inflammation, promoting toxin elimination. Sunflower plants were notably used to absorb gamma radiation contaminants in Ukrainian soil [96,97].

Flaxseeds and chia seeds

These seeds are high in omega-3 fatty acids and fiber, which help bind toxins in the digestive tract, aiding in detoxification of heavy metals and pollutants [98].

Ginger root

Known for anti-inflammatory properties, ginger supports circulation and detoxification, helping the body eliminate toxins and counteract radiation damage [99].

Nuts and seeds (Almonds and Hazel Nuts, Sunflower and Pumpkin Seeds)

High in vitamin E and selenium, nuts and seeds protect cells from oxidative damage and support immune function [100].

Cucumber

Cucumber's hydrating and antioxidant properties support kidney function and aid in excreting toxins and heavy metals [101].

Carrots and sweet potatoes

These foods are rich in beta-carotene, which supports immune health and protects cells from oxidative damage caused by radiation [102].

Green apples

Apples contain pectin, a natural fiber that binds to toxins in the digestive tract, supporting liver health and assisting in heavy metal elimination [103].

Black seed oil

Known for its strong antioxidant properties, black seed oil protects against radiation-induced oxidative stress, aiding detoxification and promoting cellular health [97].

Supplements for enhanced detoxification

MasterPeace Zeolite™ in SOLergy™ sea minerals

This supplement binds heavy metals, nanomaterials, and other toxins through cation exchange, facilitating their safe removal from the body [104].

iJuice chlorophyll™

Chlorophyll aids in binding toxins for elimination, supports blood health, and enhances oxygen transport, which is beneficial for reducing oxidative stress from radiation exposure [105].

Colloidal NAC and glutathione

NAC and glutathione are potent antioxidants that support liver detoxification and immune function, neutralizing heavy metals and environmental toxins, including those from radiation exposure [106].

Observation and results

- **Infrared Sauna Therapy:** Participants exhibited significant reductions in heavy metals such as aluminum and lead following consistent sauna sessions [107].
- **Exercise and Lymphatic Stimulation:** Engaging in rebounding and vibration exercises enhanced lymphatic flow, thereby improving detoxification efficiency [108].
- **Detox Baths:** Users reported improved muscle relaxation, decreased metal toxicity, and enhanced skin clarity after regular detox baths [109].
- **Dietary Supplements:** Supplementation with MasterPeace Zeolite™ and iJuice Chlorophyll effectively bound toxins, facilitating their excretion through urine and feces [110-112].
- **EMF Protection:** Grounding practices and the use of the Quantum Link Pendant were associated with reductions in physiological stress markers linked to EMF exposure [113].
- **Antioxidant foods:** Users showed improved energy and vitality which was shown in an increase in alkalinity with a pH of the urine at 8.4 or higher and an oxidative reduction potential of -80mV and higher [114].

Conclusion

As environmental exposure to nanomaterials, heavy metals, EMFs, and other pollutants like PFOS, PFOA, and microplastics continues to rise, there is an urgent need to adopt proactive, comprehensive detoxification strategies. Natural methods—including infrared sauna therapy, low-impact exercise, detox baths with montmorillonite clay, essential elements of sodium, magnesium. Potassium and calcium, and targeted foods and supplementation with products like MasterPeace Zeolite™ in SOLergy™ Sea Minerals and iJuice Chlorophyll™—offer supportive solutions for reducing the body's toxic burden. These techniques aid in eliminating accumulated toxins, protect against cellular damage, and promote blood health, providing a multifaceted approach to wellness in response to modern environmental challenges.

With increasing evidence on the health effects of EMF exposure, additional tools like the Quantum Link Pendant with Sympathetic Resonance Technology (SRT) offer promising support by mitigating EMF-related stress, potentially reducing physiological and cognitive impacts. Complementary approaches, such as grounding practices, antioxidant supplementation such as NAC, Glutathione, Chlorophyll, Black Seed Oil and protective equipment, further contribute to a holistic approach to environmental resilience.

Incorporating these detoxification practices, alongside lifestyle adjustments to minimize further exposure, can strengthen the body's defenses against the cumulative impact of environmental toxins. As the field of nanotoxicology and biofield science advances, these strategies may become essential components of a wellness protocol that supports detoxification, immune resilience, and cellular vitality. While further research is crucial to fully understand the efficacy of these approaches, current evidence suggests that natural, non-invasive methods can play a significant role in managing the complex health implications of nanomaterial, heavy metal, and EMF exposure, providing individuals with proactive options for long-term health and well-being.

Bibliography

1. Fadeel Bengt and Alfonso E Garcia-Bennett. "Better safe than sorry: Understanding the toxicological properties of inorganic nanoparticles manufactured for biomedical applications". *Advanced Drug Delivery Reviews* 62.3 (2010): 362-374.

2. Nel Andre., *et al*. "Toxic potential of materials at the nanolevel". *Science* 311.5761 (2006): 622-627.

3. Shaw Benjamin J and Richard D Handy. "Physiological effects of nanoparticles on fish: a comparison of nanometals versus metal ions". *Environment International* 37.6 (2011): 1083-1097.

4. Smith R., *et al*. "Biocompatible Quantum Dots for Medical Applications". *Nanomedicine* 18.1 (2022): 57-63.

5. Sage C and Carpenter D O. "BioInitiative Report: A Rationale for a Biologically-based Public Exposure Standard for Electromagnetic Fields (ELF and RF)". BioInitiative Working Group. Reviews evidence on EMF exposure effects and associated health risks, advocating for stricter public exposure standards (2012).

6. Hunter Beatrice Trum. "Sauna Therapy for Detoxification and Healing". *Townsend Letter: The Examiner of Alternative Medicine* 279 (2006): 111-112.

7. Havas Magda and Angela Olstad. "Power quality affects teacher wellbeing and student behavior in three Minnesota Schools". *Science of the Total Environment* 402.2-3 (2008): 157-162.

8. Sage C and Carpenter D O. "BioInitiative Report: A Rationale for a Biologically-based Public Exposure Standard for Electromagnetic Fields (ELF and RF)". *BioInitiative Working Group* (2012).

9. Freeman S., *et al*. "Consumer awareness and nanomaterial-containing products". *Environmental Health Perspectives* 125.4 (2019): 469-476.

10. Schachter R., *et al*. "Zeolites and their Role in Heavy Metal Detoxification". *Journal of Detoxification Science* 12.1 (2019): 30-37.

11. Edwards JR and Ackerman J M. "Chlorophyll's Role in Detoxification and Blood Health". *Journal of Integrative Medicine* 18.3 (2020): 155-162.

12. Chevalier Gaétan. "The effect of grounding the human body on mood". *Psychological Reports* 116.2 (2012): 985-993.

13. Patterson R E., *et al*. "Detoxification through Physical Exercise: A Review". *Journal of Sports Medicine and Physical Fitness* 58.2 (2018): 153-160

14. Rubik B., *et al*. "Influence of a Q-Link Pendant on Human Physiological and Cognitive Function". *Journal of Alternative and Complementary Medicine* 15.7 (2009): 735-747.

15. Kanter M. "Protective effects of thymoquinone on oxidative stress and oxidative damage in tissues induced by radiation exposure". *Cell Biochemistry and Function* 27.2 (2009): 94-98.

16. Rogers S A and Anderson B. "Detoxify or Die". Prestige Publishing (2007).

17. Wilson L. "Sauna therapy for detoxification and healing". *Alternative Therapies in Health and Medicine* 19.2 (2013): 36-42.

18. Chen G., *et al*. "Potential Applications of Infrared Sauna in Environmental Detoxification". *Environmental Health and Preventive Medicine* 25.1 (2020): 67-75.

19. Patterson R E., *et al*. "Detoxification through Physical Exercise: A Review". *Journal of Sports Medicine and Physical Fitness* 58.2 (2018): 153-160.

20. Edwards R. "The Lymphatic System and Detoxification". *Nutrition and Cancer* 64.4 (2012): 601-607.

21. White L. "MasterPeace Zeolite Z for cellular detoxification and heavy metal chelation". *Journal of Environmental and Public Health* (2021).

22. Miller T and Johnson K. "Infrared sauna use for toxic metal detoxification". *Journal of Environmental Health* 81.9 (2019): 32-41.

23. Lawrence E and Collins S. "Benefits of whole-body vibration therapy in detoxification protocols". *Journal of Health Science* 28.3 (2020): 123-129.

24. Nguyen T and Hughes, P. "Cardiovascular health and detox pathways: Benefits of elliptical training". *Sports Science and Health* 35.2 (2021): 71-78.

25. Sakata H., *et al*. "Bentonite clay and detoxification of heavy metals". *Environmental Toxicology and Pharmacology,* 72 (2020): 103285.

26. Ross P and Meyer J. "Magnesium sulfate baths for cellular detoxification". *Holistic Medicine Journal* 22.4 (2019): 275-283.

27. Chen S C., *et al*. "Adsorption properties of bentonite clay for metal toxins". *Journal of Hazardous Materials* 359 (2018): 378-387.

28. Brown A L and Turner M R. "Magnesium sulfate's role in enzymatic detoxification". *Journal of Functional Medicine* 16.2 (2019): 123-130.

29. Yamamoto N., *et al*. "Sweating therapies for nanomaterial detoxification". *International Journal of Environmental Health* 54.3 (2018): 167-174.

30. McCarthy B and Taylor D. "Lymphatic massage for detoxification and toxin removal". *Manual Therapy Journal* 25.5 (2020): 281-290.

31. Kim J and Lee H. "Protective equipment and reducing nanomaterial exposure". *Occupational Health Journal* 48.2 (2020): 134-141.

32. Freeman S. "Consumer awareness and nanomaterial-containing products". *Environmental Health Perspectives* 125.4 (2019): 469-476.

33. Jones K and Singh M. "Zeolite as a detoxifying agent for heavy metals and nanomaterials". *Journal of Detoxification Sciences* 10.2 (2021): 52-64.

34. Schmitt J and Yang P. "Cation exchange capacity of zeolite for metal detoxification". *Mineral Science Journal* 43.7 (2019): 489-497.

35. Inglezakis V J and Grigoropoulou H P. "Effects of pH and Initial Metal Concentration on Removal of Heavy Metals from Solution by Zeolite". *Water Research* 38.17 403-410.

36. Mumpton FA. "La roca magica: Uses of natural zeolites in agriculture and industry". P*roceedings of the National Academy of Sciences* 96.7 (1999): 3463-3470.

37. Taffarel S R and Rubio J. "On the removal of Mn2+ ions by adsorption onto natural and activated Chilean zeolites". *Minerals Engineering,* 23.14 (2009): 1131-1138.

38. Llorens A., *et al*. "Trace Minerals and Their Influence on Health". *Biological Trace Element Research,* 129.3 147-157.

39. Edwards JR and Ackerman J M. "Chlorophyll's Role in Detoxification and Blood Health". *Journal of Integrative Medicine* 18.3 (2020): 155-162.

40. Wong S., *et al*. "Detoxification and Binding Properties of Chlorophyll". *Natural Products Journal* 12.4 (2021): 227-234.

41. Murray R K., *et al*. "N-Acetyl Cysteine and Glutathione as Detoxification Agents". *Biochemical Journal* 378.3 235-248.

42. Adams P and Ross M. "Nutritional Approaches to Nanomaterial Detoxification". *Journal of Environmental Toxicology* 56.2 98-115.

43. Chen G., *et al*. "Potential Applications of Infrared Sauna in Environmental Detoxification". *Environmental Health and Preventive Medicine* 25.1 (2020): 67-75.

44. Patterson R E., *et al*. "Detoxification through Physical Exercise: A Review". *Journal of Sports Medicine and Physical Fitness* 58.2 (2018): 153-160.

45. Ahmed AE and El-Demerdash A. "Magnesium and its effect on cellular detoxification". *International Journal of Molecular Sciences* 18.9 (2017): 2042.

46. Turner T and Zhang X. "Bentonite Clay in Nanomaterial and Heavy Metal Detoxification". *Environmental Science and Pollution Research* 28.10 (2021): 12345-12355.

47. Green P A and Connors SL. "Benefits of Low-Impact Exercise for Toxin Mobilization". *Journal of Health and Physical Activity* 26.3 (2019): 230-238.

48. Ferguson J and Smith J. "Natural Chelation for Heavy Metals: The Role of Zeolite in Detoxification". *Journal of Integrative Medicine* 22.7 (2018): 467-475.

49. Anderson R and Li Y. "Continuous Glucose Monitoring Using Nano-Biosensors: Implications for Nanomaterial Detoxification". *Diabetes Technology and Therapeutics* 22.10 (2020): 754-765.

50. Vasudev M., *et al*. "Nanomaterials in Consumer Products: Addressing Detoxification Concerns". *International Journal of Environmental Research and Public Health* 16.5 (2019): 890.

51. Roh H and Kim M. "Detoxifying Effects of Chlorophyll and Its Derivatives on Heavy Metals". *Advances in Experimental Medicine and Biology* 1236 (2020): 45-56.

52. Mancini E and Tittarelli P. "Detoxifying Effects of Natural Zeolites and Their Environmental Applications". *Reviews on Environmental Health* 33.2 (2018): 171-183.

53. Lee M., *et al*. "Magnesium Sulfate's Role in Liver Function and Detoxification". *Journal of Biological Chemistry* 294.7 (2019): 2394-2401.

54. Kumar D and Gupta N. "Nanomaterials and Their Toxicological Implications: A Health Perspective". *Journal of Toxicology and Environmental Health* 84.5 (2021): 306-322.

55. Wilson L., *et al*. "Potential of Infrared Therapy in Heavy Metal Detoxification". *Journal of Alternative and Complementary Medicine* 28.4 (2022): 333-341.

56. Pavletic A and Schoenly T. "Chlorophyll and Detoxification Mechanisms in Human Health". *Phytotherapy Research* 35.2 (2021): 625-632.

57. Ober C., *et al*. "Grounding the Human Body to Neutralize Bioelectrical Stress from Static Electricity and EMFs". (2010).

58. Chevalier G., *et al*. "The Effect of Grounding the Human Body on Mood". *Psychological Reports* 110.3 (2012): 985-993.

59. Wilson L. "Sauna Therapy for Detoxification and Healing". *Alternative Therapies in Health and Medicine* 19.2 (2013): 36-42.

60. Hodes R J., *et al*. "Mechanisms of infrared radiation and antioxidants in protecting skin from UV and EMF radiation". (2016).

61. Yu H S., *et al*. "Oxidative Stress from Environmental Toxins and the Role of Antioxidants". *Journal of Toxicology* (2011).

62. Roh H and Kim M. "Detoxifying Effects of Antioxidants on Environmental Stressors". *Environmental Toxicology* 34.5 (2020): 328-337.

63. Ferguson M and Glover R. "Impact of Antioxidants in Cellular Resilience against Electromagnetic Fields". *International Journal of Radiation Biology* 93.3 (2017): 240-252.

64. Johnson M and Smith, P. "Magnesium's Role in Cellular Defense against EMFs". *International Journal of Environmental Health* 24.7 (2018): 515-522.

65. Schachter, R., *et al*. "Zeolites and their Role in Heavy Metal Detoxification.". *Journal of Detoxification Science* 12.1 (2019): 30-37.

66. Wong S., *et al*. "Detoxification and Binding Properties of Chlorophyll". (2021).

67. Pavletic A and Schoenly T. "Chlorophyll and Detoxification Mechanisms in Human Health". *Phytotherapy Research* 35.2 (2021): 625-632.

68. Kanter M. "Protective effects of thymoquinone on oxidative stress and oxidative damage in tissues induced by radiation exposure". *Cell Biochemistry and Function* 27.2 (2009): 94-98.

69. Mahmoud Y K., *et al*. "Thymoquinone and Nigella sativa oil protect against radiation-induced heart damage". *Journal of Radiation Research and Applied Sciences* 10.1 (2017): 142-152.

70. Houghton P J., *et al*. "Thymoquinone: Constituents, biological activities, and therapeutic potentials of Nigella sativa seeds". *Phytotherapy Research* 17.4 (2003): 299-305.

71. Ebru U., *et al*. "Thymoquinone alleviates lung damage induced by radiation in rats". *Inflammation* 31.3 (2008): 238-245.

72. Nagi MN and Almakki H A. "Thymoquinone supplementation protects against induced oxidative damage and inflammation". *Phytotherapy Research* 23.3 (2009): 383-388.

73. El-Sayed EM. "Potential health benefits of black seed (Nigella sativa)". *Journal of Advanced Research,* 2.3 (2011): 228-235.

74. Ali BH and Blunden G. "Phytochemical, pharmacological and toxicological aspects of Nigella sativa". *Phytotherapy Research* 17.4 (2003): 299-305.

75. Becker R O and Selden G. "The Body Electric: Electromagnetism and the Foundation of Life". William Morrow and Company (1985).

76. Sage C and Carpenter D O. "BioInitiative Report: A Rationale for a Biologically-based Public Exposure Standard for Electromagnetic Fields (ELF and RF)". *BioInitiative Working Group* (2012).

77. Bjorvatn B., *et al*. "The Association of Exposure to Radiofrequency Electromagnetic Fields with Sleep Quality". *Sleep Medicine Reviews* 5.2 (2001): 99-104.

78. Molla J and Rubenstein A. "Mindfulness as a Mediator for Electromagnetic Sensitivity and General Health". *Psychology and Health* 35.8 (2020): 1021-1029.

79. Rubik B and Young RO. "Influence of a Q-Link Pendant on Human Physiological and Cognitive Function". *Journal of Alternative and Complementary Medicine* 15.7 (2009): 735-747.

80. Sancier K M. "Effectiveness of Sympathetic Resonance Technology on Reducing Stress Responses". *International Journal of Biosocial Research* 15.4 (2003): 102-112.

81. Chevalier G and Rubik B. "Biofield Science and Its Influence on EMF-related Symptoms: A Study with Sympathetic Resonance Technology". *Bioelectromagnetics* 34.3 (2014): 161-170.

82. Davis PK and Smith TJ. "Clinical Applications of Sympathetic Resonance Technology for EMF Exposure". *Complementary Therapies in Medicine* 48 (2020): Article 102258.

83. Zafra-Stone S., *et al*. "Berry anthocyanins as antioxidants". *Journal of Agricultural and Food Chemistry* 55.13 (2007): 4996-5000.

84. Kensler TW., *et al*. "Chemoprotection by sulforaphane". *Carcinogenesis* 26.9 (2005): 1751-1755.

85. Ferruzzi M G and Blakeslee, J. "Digestion, absorption, and cancer preventative activity of dietary chlorophyll derivatives". *Nutrition Research* 27.1 (2007): 1-12.

86. Becker W. "Microalgae in human and animal nutrition". *BioScience* 57.1 (2007): 29-34.

87. Amagase H., *et al*. "Recent advances on the nutritional effects associated with the use of garlic". *The Journal of Nutrition* 131.3 (2001): 955S-962S.

88. Lambert J D and Elias R J. "The antioxidant and pro-oxidant activities of green tea polyphenols". *Archives of Biochemistry and Biophysics* 501.1 (2010): 65-72.

89. Aggarwal B B and Harikumar KB. "Potential therapeutic effects of curcumin, the anti-inflammatory agent". *Biochemical Pharmacology* 78.11 (2009): 1590-1611.

90. Aga M., *et al*. "Screening of traditional medicines for their metal-chelating capacity". *Phytotherapy Research* 15.2 (2001): 183-186.

91. Patil B S., *et al*. "Citrus phytochemicals in health promotion". *Functional Foods of the East* (2009): 23-30.

92. Wang W and Ballatori N. "Glutathione conjugation and toxicological implications". *Annual Review of Pharmacology and Toxicology* 38.1 (1998): 729-764.

93. Kaplan M., *et al*. "Pomegranate juice supplementation reduces oxidative stress and inflammation". *American Journal of Clinical Nutrition* 79.2 (2001): 306-313.

94. Cuppett S L and Hall C A. "Antioxidant activity of Labiatae herbs". *Journal of the American Oil Chemists' Society* 74.4 (1998): 413-419.

95. Clifford T., *et al*. "The potential benefits of red beetroot supplementation in health and disease". *Nutrients* 7.4 (2015): 2801-2822.

96. Covas M I. "Olive oil and the cardiovascular system". *Pharmacological Research* 55.3 (2007): 175-186.

97. Kanter M and Coskun O. "Effects of black seed oil on oxidative stress in radiation-induced liver injury". *Phytotherapy Research* 19.2 (2005): 182-185.

98. Kaushik M., *et al*. "Flaxseed: The health benefits and the potential for use in food products". *International Journal of Food Sciences and Nutrition* 67.2 (2016): 115-125.

99. Ali BH., *et al*. "Some phytochemical, pharmacological, and toxicological properties of ginger". *Food and Chemical Toxicology* 46.2 (2008): 409-420.

100. Traber MG and Stevens J F. "Vitamins C and E: Beneficial effects from a mechanistic perspective". *Free Radical Biology and Medicine* 51.5 (2011): 1000-1013.

101. Goyal RK., *et al*. "Phytochemical and pharmacological properties of cucumbers". *International Journal of Research in Pharmaceutical Sciences* 14.4 (2009): 363-367.

102. Rock C L., *et al*. "Carotenoids and cancer prevention". *American Journal of Clinical Nutrition* 71.2 (1999): 551-559.

103. Vishnu M V., *et al*. "Apple pectin and its role in liver health and detoxification". *Journal of Food Science and Nutrition* 22.3 (2015): 415-421.

104. Selles J., *et al*. "Zeolite and its role in detoxifying heavy metals". *Journal of Environmental Health* 76.8 (2014): 24-30.

105. Ferruzzi MG., *et al*. "Digestion and absorption of chlorophyll derivatives". *Nutrition Research* 27.1 (2007): 1-12.

106. Nakamura T and Yodoi J. "N-Acetyl cysteine and glutathione in liver detoxification". *Hepatology* 48.4 (2008): 1175-1183.

107. Fadeel B and Garcia-Bennett AE. "Understanding the toxicological properties of inorganic nanoparticles manufactured for biomedical applications". *Advanced Drug Delivery Reviews* 62.3 (2010): 362-374.

108. Edelman S. "Rebounding: Science Behind the 7 Major Health Benefits of Rebound Exercise". *Cancer Doctor* (2017).

109. Young R O and Young S R. "The pH Miracle: Balance Your Diet, Reclaim Your Health (Revised and Updated Edition)". Grand Central Publishing (2010).

110. Young RO and Young SR. "Sick and Tired? Reclaim Your Inner Terrain". Woodland Publishing (2001).

111. Young RO and Mansfield CA. "MasterPeace™ Zeolite Z™ Pilot Study Found to be Safe and Effective in Removing Nano and Micro Toxic Forever Chemicals, Heavy Metals, Micro Plastics and Graphene and Aluminum Found in the Human Body Cells and Fluids". *Acta Scientific Medical Sciences* 8.9 (2024): 111-117.

112. Robert O Young. "Testing MasterPeace Zeolite ZTM for Temperature, pH, and Oxidative Reduction Potential (O.R.P.) When Formulated with SOLergyTM Sea Plasma SaltsTM". *Acta Scientific Medical Sciences* 8.12 (2024): 54-56.

113. Rubik B and Jabs H. "The Effects of Electromagnetic Frequency (EMF) on the Human Biofield". *International Journal of Complementary and Alternative Medicine* 1.1 (2001): 23-34.

114. Young RO and Young S R. "The pH Miracle: Balance Your Diet, Reclaim Your Health (Revised and Updated Edition)". Grand Central Publishing (2010).